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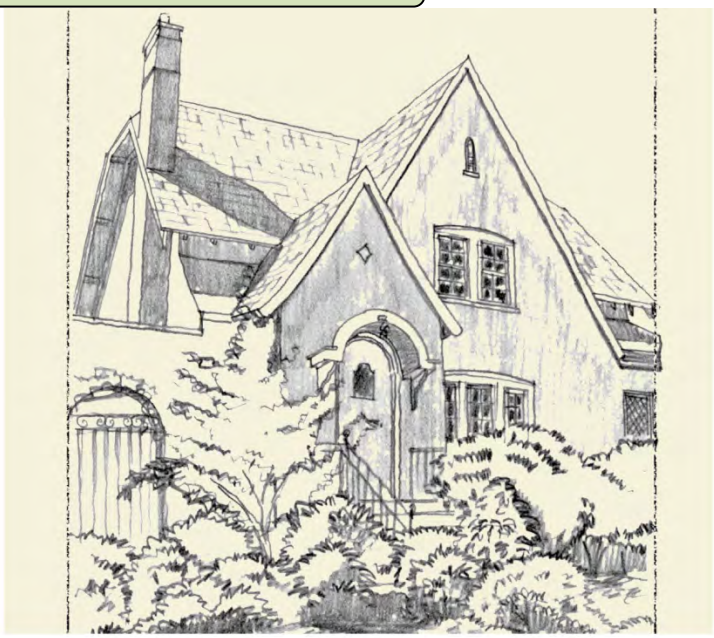

City of SACRAMENTO
Community Development

Prepared for the City of Sacramento

Sutter Park Neighborhood Project
Draft Environmental Impact Report

SCH No. 2012112036
(P12-031)

October 2013

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Sutter Park Neighborhood Project

Draft Environmental Impact Report

SCH: 2012002036

(P12-031)

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ACRONYMS AND ABBREVIATIONS

°F	degrees Fahrenheit
AB	Assembly Bill
ADWF	average dry weather flow
APS	Alternative Planning Strategy
AQAP	*1991 Air Quality Attainment Plan*
ARB	California Air Resources Board
AWSC	All Way Stop Control
BACT	best available control technology for toxics
BMP	best management practice
C&D	construction and demolition
CAA	Federal Clean Air Act
CAAA	Federal Clean Air Act Amendments of 1990
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
Cal EPA	California Environmental Protection Agency
CalARP	California Accidental Release Prevention
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CASAC	Clean Air Scientific Advisory Committee
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESA	California Endangered Species Act
CFC	chlorofluorocarbon
CFR	Code of Federal Regulations
cfs	cubic feet per second
CH_4	methane
CNDDB	California Department of Fish and Game's Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CO_2e	CO_2 equivalent
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

CRPR	California Rare Plant Rank
CUPA	Certified Unified Program Agency
dBA	A-weighted decibels
Delta	Sacramento–San Joaquin Delta
diesel PM	diesel exhaust
DNE	Does Not Exist
DOF	California Department of Finance
DOT	U.S. Department of Transportation
DTSC	California Department of Toxic Substances Control
DWP	Demolition Work Plan
EIR	Environmental Impact Report
EMS	emergency medical services
EOC	Emergency Operations Center
EPA	U.S. Environmental Protection Act
EPCRA	Emergency Planning Community Right-to-Know Act
ESA	Endangered Species Act
FAR	floor-area ratio
FMMP	Farmland Mapping and Monitoring Program
FMP	Sacramento Public Library Facility Master Plan
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
HCFC	hydrochlorofluorocarbon
HWCL	Hazardous Waste Control Law
ITE	Institute of Transportation Engineers
kWh	kilowatt per hour
lb/day	pounds per day
L_{dn}	Day-Night Noise Level
L_{eq}	Equivalent Noise Level
L_{max}	Maximum Noise Level
L_{min}	Minimum Noise Level
LOS	level of service
MACT	maximum available control technology for toxics
MBTA	Migratory Bird Treaty Act of 1918
mgd	million gallons per day
MMT	million metric tons

mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	mineral resource zone
MUTCD	California Manual on Uniform Traffic Control Devices
N_2O	Nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCE	Nichols Consulting Engineers
NCIC	Northern California Information Center
NESHAP	national emissions standards for HAPs
NHPA	National Historic Preservation Act of 1966
NHTSA	U.S. Department of Transportation's National Highway Traffic Safety Administration
NO	nitric oxide
NO_2	Nitrogen dioxide
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPC	nonstructural performance categories
NPPA	California Native Plant Protection Act
NRC	Nuclear Regulatory Commission
NRHP	National Register of Historic Places
NTMP	City of Sacramento has a Neighborhood Traffic Management Program
OAP	*1994 Ozone Attainment Plan*
OES	City's Office of Emergency Services
OPR	Governor's Office of Planning and Research
Ordinance	Tree Preservation Ordinance
OSHA	Occupational Safety and Health Administration
OSHPD	Office of Statewide Health Planning and Development
ozone	photochemical smog
Parks Department	City of Sacramento Department of Parks and Recreation
PFC	perfluorocarbons
PM_{10}	respirable particulate matter with an aerodynamic diameter of 10 micrometers or less
$PM_{2.5}$	Fine particulate matter
ppm	parts per million
PPV	peak particle velocity
PUD	Planned Unit Development
RCRA	Resource Conservation and Recovery Act
RMP	Risk Management Program
RMS	root mean square
ROG	reactive organic gases
RT	Sacramento Regional Transit District

RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SB	Senate Bill
SCEMD	Sacramento County Environmental Management Department
SCHS	Sutter Community Hospitals of Sacramento
SCS	Sustainable Communities Strategy
SCUSD	Sacramento City Unified School District
SEL	Single Event Noise Levels
sf	square foot
SFD	Sacramento Fire Department
SIP	State Implementation Plan
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMC	Sutter Medical Center
SMCS	Sutter Medical Center, Sacramento
SO_2	sulfur dioxide
SPC	structural performance categories
SPD	Sacramento Police Department
SPL	Sacramento Public Library
SRFECC	Sacramento Regional Fire/EMS Communications Center
SRWTP	Sacramento Regional Wastewater Treatment Plant
SSSC	Side Street Stop Control
Sutter Health	Sutter Health System
SVAB	Sacramento Valley Air Basin
SWPP	Storm Water Pollution Prevention
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TPY	tons per year
TRU	transport refrigeration units
UFC	Uniform Fire Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tank
VdB	vibration decibels
VMT	vehicle miles traveled
W&K	Wright & Kimbrough
WRCC	Western Regional Climate Center
$\mu g/m^3$	micrograms per cubic meter

EXECUTIVE SUMMARY

INTRODUCTION

The Executive Summary of the Draft Environmental Impact Report (Draft EIR) provides an overview of the Sutter Park Neighborhood Project (proposed project) and the content of the environmental analysis. Chapter 3 of the Draft EIR provides a detailed description of the project, Chapter 4 analyzes the project's consistency with applicable land use regulations, and Sections 5.1 through 5.10 of the Draft EIR provide the environmental analyses. Alternatives to the proposed project are described in Chapter 7, "Alternatives." This summary provides a description of the alternatives and a comparison of the impacts of the alternatives to those of the proposed project.

PROJECT DESCRIPTION

The Sutter Park Neighborhood Project (proposed project) would establish a Planned Unit Development (PUD) on the property on which Sutter Memorial Hospital and its associated offices and related-care facilities are located. The area is comprised of approximately 19 acres located in the Coloma Terrace neighborhood of East Sacramento in the City of Sacramento. The proposed project site is bordered by 51st Street to the north, single-family homes on E Street and Coloma Way to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east (see Exhibit 3-2 in Chapter 3, "Project Description," of the Draft EIR).

In June 2000, Sutter Medical Center, Sacramento (SMCS) commissioned an internal planning process that resulted in a decision to consolidate services presently provided by Sutter Memorial Hospital in East Sacramento into Sutter General Hospital and to build new hospital facilities. Existing operations at Sutter Memorial Hospital will be transferred to the new Anderson Lucchetti Women's and Children's Center, which is scheduled to open fall 2014. The proposed project consists of decommissioning and demolition of the hospital and related facilities and the construction and operation of new residential, mixed use, and park uses on the project site.

Following the transfer of hospital operations out of Sutter Memorial Hospital, the hospital would be decommissioned, and the existing buildings on the project site would be demolished. On behalf of the property owner (Sutter Community Hospitals of Sacramento), the project applicant (Stonebridge Properties) is proposing the Sutter Park Neighborhood (Planned Unit Development [PUD]) project. The hospital demolition and the proposed Sutter Park Neighborhood project are the subject of the Sutter Park Neighborhood Draft EIR.

The proposed project would require a General Plan amendment to change the land use designation from Public/Quasi-Public to Traditional Neighborhood Low (see Exhibit 3-4, General Plan Amendment, of the Draft EIR). This designation provides for moderate-intensity housing and neighborhood-support uses including: single-family detached dwellings, single-family attached dwellings (e.g., duplexes,

triplexes, townhomes), accessory second units, limited neighborhood-serving commercial on lots two acres or less, compatible public, quasi-public, and special uses. The proposed project would also require a rezone from Hospital to approximately 18 acres R-1A (PUD), 0.4 acres RMX (PUD), and 0.87 acres R-3A (PUD) (see Exhibit 3-5, Rezone, of the Draft EIR). The proposed project includes the development of approximately 19 acres of mixed-use residential development. The project would include approximately 5,000 square feet of commercial retail, up to 125 residential units, and four parks totaling 1.24 acres. The project would include the necessary roadway and utilities infrastructure, which would tie into existing off-site infrastructure (see Exhibit 3-6, Tentative Subdivision, of the Draft EIR).

SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or visual significance. For these areas, this Draft EIR discusses the impacts and mitigation measures that could be implemented by the City of Sacramento to reduce potential adverse impacts to a level that is considered less-than-significant. The impacts and mitigation measures are also summarized in the table at the end of this chapter. An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. The mitigation measures presented in the Draft EIR will form the basis of the Mitigation Monitoring Program.

AESTHETICS

This section provides a description of the existing visual character in the Sutter Park Neighborhood area and evaluates changes to those conditions that would result from implementation of the proposed project. The proposed project would have no adverse impact to the existing visual character of the site and its surroundings and a less-than-significant impact related to light and glare. The project's contribution to cumulative changes in the visual character of the area is not cumulatively considerable because the proposed project would not have a demonstrable negative aesthetic effect or substantially degrade the visual character or quality of the site and would not increase the amount of light and glare on the project site.

AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential short-term and long-term air quality impacts caused by the proposed project. The method of analysis for short-term construction, long-term regional (operational), local mobile-source, and toxic air emissions is consistent with the recommendations of the Sacramento Metropolitan Air Quality Management District (SMAQMD).

The proposed project would have less-than-significant impacts related to short-term construction-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$, generation of long-term operational (regional) emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$, generation of local mobile-source CO emissions, exposure of

sensitive receptors to toxic air contaminant (TAC) emissions, and short-term construction-related and long term operational exposure of sensitive receptors to excessive odors. The project's contribution to cumulative construction-related or operational-related air quality impacts would also be less than significant.

BIOLOGICAL RESOURCES

This section evaluates effects of the proposed project on biological resources within and near the project area. Existing plant communities, wildlife habitats, and potential for special-status species and communities are discussed. The analysis then identifies potential impacts and mitigation measures related to the proposed project. The proposed project would have less-than-significant impacts, following implementation of mitigation measures, regarding loss of raptors nests, migratory birds, loss of bat colonies during building demolition, conflicts with the City tree preservation ordinance, and exposure of animals and plants to asbestos-containing materials, petroleum products, contaminated ground water or other hazardous materials or situations. After mitigation, biological resources impacts would either be avoided or reduced to such an extent that they would not result in a considerable contribution to the cumulative effects determined under the City of Sacramento's General Plan.

CLIMATE CHANGE

This section describes the proposed project's construction-related (short-term) and operation-related (long-term) emissions of greenhouse gases. The discussion includes the criteria for determining the level of significance of the effects and a description of the methods and assumptions used to conduct the analysis. This section includes a discussion of the current state of climate change science, and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; and a description of project-generated GHG emissions and their contribution to global climate change. The proposed project would generate GHG emissions during short-term construction and long-term operation that would not be cumulatively considerable because the proposed project would be consistent with the City's Climate Action Plan.

CULTURAL RESOURCES

This section discusses known historic and prehistoric resources in the Sutter Memorial Hospital vicinity and the potential for unknown resources to exist. The analysis summarizes the existing setting, identifies the thresholds of significance of impacts, and describes the potential effects to historical, archaeological, and paleontological resources. The analysis then identifies feasible mitigation measures that would be necessary to reduce impacts to a less-than-significant level.

The proposed project would have a less-than-significant impact on historical resources and, with implementation of mitigation measures, less-than-significant impacts on archeological and paleontological resources. Implementation of these mitigation measures would ensure that the proposed project would not contribute to a cumulative effect on cultural resources.

HAZARDS AND HAZARDOUS MATERIALS

This section describes the types of environmental hazards that would be associated with demolition of Sutter Memorial Hospital and construction and operation of the Sutter Park Neighborhood Project residential development. Hazards evaluated include those associated with identified existing or suspected sites of contamination and potential exposure to hazardous materials used, stored, or transported during demolition and construction.

With implementation of identified mitigation measures, the proposed project would have less-than-significant impacts related to exposure of people to asbestos-containing materials, or other hazardous materials or situations, exposure of people to existing contaminated soil during construction, exposure of people to existing contaminated groundwater during construction or dewatering activities, and cumulative impacts.

NOISE

This section includes a description of acoustic fundamentals, existing ambient noise conditions, and an analysis of potential short- and long-term noise and vibration impacts associated with implementation of the proposed project. Mitigation measures are recommended, as necessary, to reduce potentially significant adverse noise impacts. The proposed project would have less-than-significant impacts in regard to ambient noise levels during operation, off-site hauling activities, construction vibration, operational vibration, and cumulative impacts. The proposed project would have a significant impact related to increases in ambient noise levels during construction. Implementation of mitigation measures would reduce the magnitude of this impact, but it would remain significant and unavoidable.

TRANSPORTATION AND TRAFFIC

This section of the EIR assesses the potential transportation and circulation impacts of the proposed Sutter Park Neighborhood project on the surrounding transportation system including roadways, bicycle/pedestrian facilities and transit facilities. The proposed project would have less-than-significant impacts related to study intersections, study roadways, transit facilities, bicycle facilities, and pedestrian facilities. Implementation of mitigation measures would result in a less-than-significant impact to construction-related circulation. Near-term cumulative conditions, which include the completion of the Lane Conversion project on J Street and Folsom Boulevard, would also be less than significant.

PUBLIC SERVICES AND RECREATION

This section of the Draft EIR describes existing public services on and near the Sutter Memorial Hospital site and evaluates the effects of the proposed project on those services. The services evaluated in this section include police protection, fire protection, emergency services, schools, libraries, and recreation facilities. The proposed project would have a less-than-significant impact on demand for these services and to cumulative impacts to public services and facilities from the proposed project, in combination with existing and future developments in the Sacramento area.

UTILITIES AND SERVICE SYSTEMS

This section evaluates the potential effects of the Sutter Park Neighborhood Project on water distribution and supply, wastewater, storm drainage, solid waste disposal, and energy and telecommunications infrastructure. There would be no impact in regard to water supply capacity or facilities or from new or expanded energy production or power transmission facilities. The proposed project would have a less-than-significant impact regarding the increase demand for potable water, the capacity of existing water utilities infrastructure, the capacity of existing wastewater infrastructure, and the capacity of existing stormwater conveyance. The proposed project would have a less-than-significant impact related to solid waste facilities and telecommunication facilities. The Sutter Neighborhood Project would not result in a consideration contribution to a cumulative impact to public utilities.

SUMMARY OF PROJECT ALTERNATIVES

The following summary describes the alternatives to the proposed project that are evaluated in the Draft EIR. For a complete discussion of project alternatives, see Chapter 7, “Project Alternatives.”

ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

Pursuant to CEQA Guidelines section 15126.6(c), the Draft EIR includes a reasonable range of alternatives to the proposed project that meet most of the objectives of the project and avoid or substantially lessen the identified likely environmental impacts. In addition to the alternatives listed below, three alternatives were considered, but dismissed from further evaluation. The first is an alternative to seismically upgrade the existing Sutter Memorial Hospital and continue its use as a hospital. The second is an alternative to sell the property for some other use, or to reuse the facilities for commercial or residential uses. The third is an off-site alternative that was determined to not meet the project objectives related to reuse of an infill location in the City of Sacramento.

ALTERNATIVES EVALUATED

The following alternatives are evaluated in Chapter 7 of the Draft EIR.

NO PROJECT/NO DEVELOPMENT (VACANT SITE) ALTERNATIVE

The No Project/No Development Alternative assumes that the proposed project would not be built and there would be no new development of the site. Under this alternative, Sutter Memorial Hospital and its associated buildings would be demolished and the site would remain vacant. The No Project/No Development Alternative would not meet any of the project objectives.

NO PROJECT/NO ACTION (VACANT HOSPITAL) ALTERNATIVE

Under the No Project/No Action (Vacant Hospital) Alternative, the existing structures on the site would remain and the site would not be redeveloped. Under this alternative Sutter Memorial Hospital would not be demolished, but existing uses would transfer to other Sutter Medical Center, Sacramento (SMCS) facilities, and the hospital and associated buildings would be vacant. There would be no new residential and commercial development on the site. The No Project/No Action Alternative would not meet any of the project objectives.

NO 53RD STREET CONNECTION ALTERNATIVE

With this access alterative, the project site would not have access at 53rd Street, but it would include four other access locations similar to the proposed project. The north leg of the 53rd Street and F Street would continue to provide inbound only movement to the adjacent medical building. This alternative would reduce the number of access points to the new development and would provide an alternate circulation system. This alternative would meet the objectives of the project by providing a range of new housing types similar in scope and scale to the existing neighborhood.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The environmentally superior alternative would be the No Project/No Action Alternative because it would not result in new impacts on the project site, and it would avoid the significant and unavoidable noise impact associated with the project. However, the No Project/No Action Alternative would not achieve any of the project's objectives. The proposed project would be environmentally similar to the No 53rd Street Extension Alternative because the two alternatives would result in similar impacts. Compared to the proposed project, under the No 53rd Street Extension Alternative, eight intersections would result in the same average delay during the AM and PM peak hours, one intersection would result in less delay, and six intersections would result in greater delay.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

The following table (Table ES-1) summarizes the impacts identified in the environmental section of this Draft EIR. The proposed project impacts are identified for each technical section (5.1-5.10) in the Draft EIR. The level of significance of each impact, any mitigation measures required for each impact, and the resultant level of significance after implementation of mitigation measures, are given within the table.

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.1 Aesthetics			
5.1-1: Degrade the existing visual character of the site and its surroundings. Development of the proposed project would replace the existing urban hospital setting with a traditional residential neighborhood. This would not degrade the existing visual character or quality of the site and its surroundings. Therefore, there would be no impact.	NI	No mitigation is required.	LTS
5.1-2: Create a new source of substantial light or glare. The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.1-3: Cumulative effect on aesthetics. The proposed project, in combination with other development in East Sacramento, would not cause a substantial adverse change in the visual character of East Sacramento. The proposed project would replace the existing urban hospital setting with a traditional residential neighborhood, consistent with the surrounding neighborhood and would not increase the amount of light or glare. Therefore, the proposed project would not contribute to a cumulative effect on aesthetics.	NI	No mitigation is required.	LTS
5.2 Air Quality			
5.2-1: Short-Term Construction-Generated Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$. Short-term construction-generated emissions would not exceed SMAQMD's significance threshold for NO_X and, thus, would not be expected to contribute to pollutant concentrations that exceed the NAAQS or CAAQS. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.2-2: Generation of Long-Term Operational (Regional) Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$. Implementation of the proposed project would not result in long-term operational emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ that exceed SMAQMD's thresholds of significance (65 lb/day for ROG and NO_X) or substantially contribute to concentrations that exceed the NAAQS	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and Unavoidable

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
or CAAQS. Therefore, impacts related to these long-term operational (regional) emissions would be less than significant.			
5.2-3: Generation of Local Mobile-Source CO Emissions. Operation of the proposed project would not result in or substantially contribute to CO concentrations that exceed the California 1-hour ambient-air quality standard of 20 ppm or the 8-hour standard of 9 ppm. This impact would be less than significant.	LTS	No mitigation is required.	LTS
5.2-4: Exposure of Sensitive Receptors to Toxic Air Contaminant (TAC) Emissions. Neither the short-term construction nor the long-term operation of the proposed project would result in the exposure of sensitive receptors to excessive TAC emissions that exceed SMAQMD's significance threshold. Therefore, impacts related to exposure of sensitive receptors to TACs would be less than significant.	LTS	No mitigation is required.	LTS
5.2-5: Short-Term Construction-Related and Long Term Operational Exposure of Sensitive Receptors to Excessive Odors. Neither the short-term construction nor the long-term operation of the proposed project would result in the exposure of sensitive receptors to excessive odors. This impact would be considered less than significant.	LTS	No mitigation is required.	LTS
5.2-6: Cumulative Short-Term Construction-Generated Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$. Implementation of the proposed project would not increase construction-generated NO_X levels above 85 pounds per day, and would therefore not be cumulatively considerable. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.2-7: Cumulative Long-Term Operational Emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$. Implementation of the proposed project would result in emissions below baseline levels, and would generate emissions below levels above 85 pounds per day of NO_X, and would therefore not be cumulatively considerable. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.3 Biological Resources			
5.3 1: Loss of raptor nests. Tree removal during the raptor breeding season could result in mortality of eggs or young. Construction activities adjacent to active nests could also result in nest abandonment. Loss of an active raptor nest would be a significant impact.	S	**5.3 1: Avoid disturbing active raptor nests.** The following mitigation measure would apply to the proposed project to reduce construction impacts on tree-nesting raptors: a. The construction contractor shall ensure that all tree removal activities take place between September 1 and February 15 to avoid removing active raptor nests. b. For construction activities occurring between February 16 and August 31, the construction contractor shall retain a qualified biologist to conduct preconstruction surveys for nesting raptors and to identify active nests on and within 0.25 mile of the demolition and construction site. The surveys shall be conducted no more than 30 days before the beginning of construction activities that could remove trees or otherwise disturb nesting raptors. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) will be followed. c. If active nests are found, the construction contractor shall establish appropriate buffers around the nests. The qualified biologist will determine an adequate buffer for the species and nest. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. Monitoring of the nest by a qualified biologist shall be required if the activity has the potential to adversely affect the nest. For Swainson's hawk nests, DFG guidelines (1994) recommend maintenance of 0.25 mile buffers around Swainson's hawk nests in developed areas, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.3-2: Impacts on migratory birds. Tree and shrub removal during the breeding season could result in avian mortality of eggs or young. Construction activities adjacent to active nests could also result in nest abandonment. Loss of an active nest would be considered a significant impact based on the Migratory Bird Treaty Act (1918).	S	**5.3 2: Avoid disturbing active migratory bird nests.** The following mitigation measure would apply to construction of the proposed project to reduce impacts on migratory birds: The contractor will implement the following measures to avoid or minimize loss of migratory bird nests: a. Vegetation removal activities will be carried out during the nonbreeding season (September 1-February 31) for migratory birds. b. For construction activities occurring between February 16 and August 31, the construction contractor shall retain a qualified biologist to conduct preconstruction surveys for nesting migratory birds and to identify active nests on and within 0.25 mile of the demolition and construction site. The surveys shall be conducted no more than 30 days before the beginning of construction activities that could remove trees or otherwise disturb nesting migratory birds. c. If active nests are found, the construction contractor shall establish appropriate buffers around the nests. The qualified biologist will determine an adequate buffer for the species and nest. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. Monitoring of the nest by a qualified biologist shall be required if the activity has the potential to adversely affect the nest. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.	LTS
5.3-3: Loss of bat colonies during building demolition. Implementation of the proposed project involves demolition of existing abandoned buildings and other structures. These buildings provide potential roost structures for common and special-status bats. Demolition, sealing, or other construction activities at these facilities could result in disturbances to active bat colonies that could affect the survival of young or adult bats. Loss of an active bat colony would be considered a significant	S	**5.3 3: Ensure bats are absent from roost sites.** The following mitigation measure would apply to construction of the proposed project to reduce impacts on bats: ▪ The construction contractor shall retain a qualified biologist to conduct surveys for roosting western red bats prior to tree removal. If evidence of bat use is observed, the number of bats using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found,	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
impact.		then no further study shall be required. ▪ If tree roosting bats are found, bats shall be excluded from the roosting site before the tree is removed. A mitigation program addressing compensation, exclusion methods, and roost removal procedures shall be developed by a qualified biologist in consultation with CDFW before implementation. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once, it is confirmed that bats are not present in the original roost site, the tree may be removed.	
5.3-4: Conflict with tree preservation ordinance. Implementation of the proposed project could result in the removal of, or damage to, heritage trees identified on the project site. Because heritage trees are protected under the City Code, removal of mature heritage trees would be a significant impact.	S	**5.3 4: Comply with tree preservation ordinance.** The following mitigation measure would apply to the proposed project to reduce impacts on heritage trees: The project applicant would implement the following measures to avoid and minimize impacts on mature heritage tree and native oak trees and comply with the Sacramento City Code (Section 12.64.020): ▪ The project proponent shall obtain written permission from the City (tree removal permit) to grant the removal of identified heritage trees and mature native oak trees. (prior code §45.04.216). ▪ The project proponents shall insure that thirty-three heritage trees that are removed are replaced within the new neighborhood with similar species of trees. Details on heritage trees species and locations can be found in the Biological Resources Assessment (ECORP 2013). ▪ The project proponents shall work with the City arborist to determine appropriate number, types, size of replacement plantings, maintenance requirements and location. ▪ The project proponent shall ensure that replacement trees are established and maintained for at least three years to ensure long-term health and viability. ▪ To ensure protection of Heritage trees to be retained on the project site (if any are identified), protective fencing shall be	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		installed at the dripline during construction. Grading, trenching, equipment or materials storage, parking, paving, irrigation, and landscaping will be prohibited within the fenced areas. ▪ No signs, ropes or cables will be attached to trees to be retained. ▪ No oil, fuel, concrete mix or other deleterious substance shall be placed in, or allow to flow into, the drip line area of any tree to be retained. ▪ Grade elevation shall not change by more than two feet within thirty (30) feet of the drip line area of a retained Heritage tree.	
5.3 5: Expose animals and plants to asbestos-containing materials, petroleum products, contaminated ground water or other hazardous materials or situations. Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated soil or buried debris that may contain hazardous substances, or contaminated groundwater, which could result in injury or death to special-status species. This is a potentially significant impact.	PS	Implement Mitigation Measures 5.6-1, 5.6-2, and 5.6-3 from Section 5.6, "Hazards and Hazardous Materials."	LTS
5.3.6: Cumulative effects on biological resources. Implementation of the proposed project has the potential to adversely affect special-status terrestrial species (white-tailed kite, Swainson's hawk and other nesting raptors, and special-status bats). Potential impacts of the proposed project related to wildlife would be associated with construction and demolition disturbances to wildlife and their habitats. Implementation of Mitigation Measures 5.3-1 through 5.3-5 would ensure that the project's impacts are reduced to a less-than-significant level. Therefore, the proposed project would not contribute to a cumulative impact related to biological resources, and this is considered a less-than-significant cumulative impact.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.4 Climate Change			
5.4-1: Project-generated greenhouse gas emissions. The proposed project would generate GHG emissions during short-term construction and long-term operation that would not be cumulatively considerable because the proposed project is consistent with the City's Climate Action Plan. This impact would be considered less than significant.	LTS	No mitigation is required.	LTS
5.5 Cultural Resources			
5.5-1: Change in the significance of an historical resource. None of the buildings that would be affected by the project are eligible for individual or district listing on the National Register of Historic Places, the California Register of Historical Resources, or the Sacramento Register of Historic and Cultural Resources. Therefore, implementation of the proposed project would not cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5 and this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.5-2: Disturb archaeological resources. Implementation of the proposed project could cause a substantial change in the significance of an archaeological resource or disturb human remains. There are no known archaeological resources on the project site and the area has been highly disturbed. However, ground-disturbing activities could cause a substantial change in the significance of an as yet undiscovered archaeological resource as defined in CEQA Guidelines Section 15064.5 or disturb any human remains, including those interred outside of formal cemeteries. This is considered a potentially significant impact.	PS	**5.5-2: Halt ground-disturbing activity.** 1) In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Sacramento Community Development Department shall be notified. The City shall consult with a qualified archeologist retained at the applicant's expense to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), representatives of the City and the qualified archaeologist shall meet to determine the appropriate course of action, with the City making the final decision. All significant cultural materials	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards. 2) If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993), the archaeologist shall recommend to the City potentially feasible mitigation measures that would preserve the integrity of the site or minimize impacts on it, including any or a combination of the following: ▪ Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization. If such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements; ▪ An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or ▪ Other measures, short of full or partial avoidance or preservation, intended to minimize impacts on the Native American Cultural Place consistent with land use assumptions and the proposed design and footprint of the development project for which the requested grading permit	

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		has been approved. ▪ After receiving such recommendations, the City shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. The City shall, in reaching conclusions with respect to these recommendations, consult with both the project applicant and the most appropriate and interested tribal organization. 3) If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Sacramento Community Development Department and the County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by the City, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.	

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.5-3: Destroy a unique paleontological resource. Although the City of Sacramento is not known to be highly sensitive for paleontological resources, earth-disturbing activities could potentially damage paleontological resources. This is considered a potentially significant impact.	PS	**5.5-3: Cease operation and retain qualified paleontologist.** Should paleontological resources be identified at any project construction sites during any phase of construction, the construction manager shall cease operation at the site of the discovery and immediately notify the City of Sacramento Community Development Department. The project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the Community Development Department shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.	LTS
5.5-4: Cumulative effect on cultural resources. The proposed project, in combination with other development in the City of Sacramento, could cause a substantial adverse change in the significance of an historical resource or unique archaeological resource as defined in §15064.5 of the State CEQA Guidelines. Project-related grading, excavation, and other earth-moving activities could potentially damage archaeological and paleontological resources. Implementation of Mitigation Measures 5.5-2 and 5.5-3 would ensure that the proposed project would not contribute to a cumulative effect on cultural resources. Therefore, the proposed project would not contribute to a cumulative impact related to cultural resources, and this is considered a less-than-significant cumulative impact.	LTS	No mitigation is required.	LTS
5.6 Hazards and Hazardous Materials			
5.6-1: Expose people to asbestos-containing materials, or other hazardous materials or situations. Existing hospital buildings may contain asbestos, lead, or other hazardous	PS	**5.6-1: Minimize potential for accidental release of hazardous materials.** (a) Prior to demolition, the project applicant shall submit a written	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
substances that could be released into the environment if not properly removed, contained, transported, and disposed of. This is a potentially significant impact.		plan to the SCEMD describing the methods to be used to (1) identify locations that could contain hazardous residues; (2) remove plumbing fixtures known to contain, or potentially containing, hazardous materials; (3) determine the waste classification of the debris; (4) package contaminated items and wastes; and (5) identify disposal site(s) permitted to accept such wastes. Demolition shall not occur until the plan has been accepted by the SCEMD and all potentially hazardous components have been removed to the satisfaction of SCEMD staff. (b) Prior to demolition of existing structures, the project applicant shall provide written documentation to the City that asbestos testing and abatement, as appropriate, has occurred in compliance with applicable federal, state, and local laws. (c) Prior to demolition of existing structures, the project applicant shall provide written documentation to the City that lead-based paint testing and abatement, as appropriate, has been completed in accordance with applicable state and local laws and regulations. Abatement will include the removal of lead contaminated soil (considered soil with lead concentrations greater than 400 parts per million in areas where children are likely to be present).Implementation of this mitigation measure would require that asbestos-containing building materials, lead-based paint, and other hazardous substances in building components are identified, removed, packaged, and disposed of in accordance with applicable state laws and regulations.	
5.6-2: Expose people to existing contaminated soil during construction. Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated soil or buried debris that may contain hazardous substances. This is a potentially significant impact.	PS	**5.6-2: Phase II environmental site assessment and remediation.** (a) The applicant shall prepare a Phase II Environmental Site Assessment consistent with ASTM standards. The Phase II assessment will utilize the evaluation conducted in the Phase I Environmental Site Assessment to identify areas with an elevated potential for hazardous material contamination. At a minimum, the Phase II investigation shall include further	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		investigation and/or sampling of: ▪ the soils around the maintenance building; ▪ the soils beneath the generator building and broiler room in the maintenance building; ▪ the northeastern portion of the project (under the parking area) for heavy metals, PAHs, and dioxins; ▪ the former incinerator sites for heavy metals, polynuclear aromatic hydrocarbons, and dioxins; ▪ soil and water sampling around the former and current UST locations for contamination with petroleum hydrocarbons; ▪ the soils under the former cooling tower for copper; ▪ the soil at the bottom of identified wells and sumps for waste oils and petroleum hydrocarbons; and ▪ soil vapor, as appropriate. (b) In the event that site investigations find evidence of contamination, waste discharges, underground storage tanks, abandoned drums, or other environmental impairment within the project site, the SCEMD shall be notified and a site remediation plan shall be prepared that: (1) specifies measures to be taken to protect workers and the public from exposure to potential hazards; and (2) certifies that the proposed remediation measures would clean up the contaminants, dispose of the wastes, and protect public health in accordance with federal, state, and local requirements. All remediation would be consistent with DTSC's residential standards and may include soil removal or in situ treatment options. Commencement of work in areas of potential hazards shall not proceed until the site remediation plan has been executed to the satisfaction of the SCEMD. (c) A site health and safety plan that meets the intent of Cal-OSHA requirements shall be prepared and in place prior to commencing work on any contaminated sites. The project applicant shall be responsible for oversight of plan implementation.	

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		(d) In the event that previously unidentified USTs or other features or materials that could present a threat to human health or the environment are discovered during excavation and grading, construction in the area shall cease immediately. A qualified professional shall evaluate the location and hazards, and make appropriate recommendations. Work shall not proceed in that area until identified hazards are managed to the satisfaction of the SCEMD. If previously unidentified wells are located during demolition, a well destruction permit shall be obtained from SCEMD.	
5.6-3: Expose people to existing contaminated groundwater during construction or dewatering activities. Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated groundwater. This is a potentially significant impact.	PS	Implement Mitigation Measure 5.6-2: Phase II Environmental Site Assessment and Remediation.	LTS
5.6-4: Expose people to hazardous materials or situations, including asbestos-containing materials or existing contaminated soil or groundwater. The removal, transport, and disposal of hazardous materials is regulated by federal, state, and local agencies and would not contribute to cumulative regional impacts. Undocumented soil and groundwater contamination is generally localized and, where discovered, can be remediated without impacts to adjacent properties. This impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7 Noise			
5.7-1: Increase in ambient noise levels during operation. Operation of the proposed project would result in additional residential uses at the project site compared to existing conditions, however, when compared to the existing use type and intensity at the project site, the existing ambient noise levels attributable to development at the project site would generally decrease. Incremental increases in noise would occur along certain local roadways and receptors, but no substantial increase	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and Unavoidable

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
in ambient noise levels would occur. Therefore, this impact would be less than less than significant.			
5.7-2: Increase in ambient noise levels during construction. During construction activities at the project site, heavy construction equipment and demolition activities would generate elevated noise levels at nearby receptors. Construction activities would be limited to the hours permitted by City Code Section 8.68, however interior noise levels would potentially exceed established standards for residential structures. Therefore, this impact would be potentially significant.	PS	**5.7-2a: Locate rock-crushing equipment away from residences.** The contractor shall locate any and all rock-crushing equipment to the interior site and no less than 200 feet from the nearest offsite structure. **5.7-2b: Maximize distance between construction/demolition staging areas and residences.** The contractor shall ensure that the distances between on-site construction and demolition staging areas and the nearest surrounding residences are maximized to the extent possible (and in all instances are no less than 50 feet). **5.7-2c: Require mufflers on all internal combustion engines.** All project construction and demolition equipment that use internal combustion engines shall be fitted with manufacturer's mufflers or equivalent. The contractor shall keep a monthly log of construction equipment maintenance and status to ensure that all onsite equipment is appropriately muffled. **5.7-2d: Shielding of demolition noise by existing buildings.** Project construction and demolition activities shall be conducted to take maximum advantage of shielding afforded by existing buildings and structures. For example, where it is possible to conduct some demolition activities from within the shell of a building which is to be removed, thereby utilizing the existing building walls as a noise barrier, such an approach shall be utilized. Furthermore, buildings providing shielding of demolition activities shall be left in place during demolition of screened buildings, unless it is infeasible to do so. **5.7-2e: Localized shielding of ground level noise sources with portable barriers.** Stationary, ground-level, noise sources, such as jack hammers, compressors, and pumps, which would cause a substantial increase in noise levels at nearby residences during use, shall be shielded from view (i.e. preventing direct line of sight from source to receptors and back) through the use of portable sound curtain systems to be located immediately	SU

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		adjacent to the noise source in question. Each enclosure, which can be constructed of a variety of materials including noise-insulating blankets/quilts, shall achieve a minimum noise reduction coefficient of 0.75 and a minimum sound transmission class of 25. The material of the barrier shall be weather and abuse resistant, and shall exhibit superior hanging and tear strength with a surface weight of at least 1 pound per square foot. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that would completely close the gaps, and would be dense enough to attenuate noise. Placement, orientation, size, and density of acoustical barriers shall be reviewed and approved by a City-approved acoustical consultant upon initial installation. **5.7-2f: Provide notification of noisiest construction/demolition activities to local community.** The contractor shall provide disclosure notices to nearby residences within 250 feet of the project site boundaries that identifies the dates and hours during which high-noise-generating construction (i.e. demolition of the existing onsite structures) will occur and the location of such activities. This notice shall be provided at least one week prior to initiation of such activities.	
5.7-3: Off-site hauling activities. Hauling demolition materials and other construction-related materials to and from the project site would temporarily increase ambient noise levels. However, noise levels along the haul routes would not exceed the City's established thresholds. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7-4: Construction vibration. Construction activities at the project site would temporarily increase groundborne vibration as a result of demolition and the use of heavy pieces of construction equipment. However, based on the projected location of construction equipment, including the crushing equipment,	PS	Implement Mitigation Measure 5.7-2a.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
construction vibration would be perceivable but could not exceed the City's established thresholds for historic buildings and archaeological sites. Therefore, this impact would be less than significant potentially significant.			
5.7-5: Operational vibration. Operation of the proposed project would involve daily activities typical of a residential neighborhood. No substantial vibration-generating activities are anticipated on-site during project operation. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7-6: Cumulative increase in ambient noise levels during operation. The proposed project would not contribute to a substantial increase in ambient noise levels under cumulative conditions related to either local roadway (i.e. mobile source) or stationary source noise. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7-7: Cumulative increase in ambient noise levels during construction. No other projects are located within 1,000 feet of the project site that are considered cumulatively considerable with the construction noise associated with the proposed project. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7-8: Cumulative construction vibration. No other projects are located within 1,000 feet of the project site that considered cumulatively considerable with the construction vibration associated with the proposed project. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.7-9: Cumulative operational vibration. No other projects are located within 1,000 feet of the project site that considered cumulatively considerable with the operational vibration associated with the proposed project. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures

Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.8 Transportation and Traffic			
5.8-1: Impacts to study intersections.	LTS	No mitigation is required.	LTS
5.8-2: Impacts to study roadways.	LTS	No mitigation is required.	LTS
5.8-3: Impacts to transit facilities.	LTS	No mitigation is required.	LTS
5.8-4: Impacts to bicycle facilities.	LTS	No mitigation is required.	LTS
5.8-5: Impacts to pedestrian facilities.	LTS	No mitigation is required.	LTS
5.8-6: Construction-related impacts to circulation.	PS	**5.8-6:** Before issuance of a demolition permit and the beginning of construction on the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be subject to review and approval by the City Department of Public Works and subject to review by the affected agencies The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes. At a minimum, the plan shall include: ▪ The number of truck trips, time, and day of street closures, if any. ▪ Time of day of arrival and departure of trucks. ▪ Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting. ▪ Provision of a truck circulation pattern. ▪ Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas). ▪ The maintenance of safe and efficient access routes for emergency vehicles. ▪ Efficient and convenient transit routes. ▪ Manual traffic control when necessary. ▪ Proper advance warning and posted signage concerning street closures, if any. ▪ Provisions for pedestrian safety. ▪ Provisions for temporary bus stops, if necessary.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and Unavoidable

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
		A copy of the construction traffic management plan shall be submitted to local emergency response agencies, and these agencies shall be notified at least 14 days before the commencement of demolition or construction.	
5.8-7: Near Term Cumulative impacts to study intersections.	LTS	No mitigation is required.	LTS
5.8-8: Near Term Cumulative impacts to study roadways.	LTS	No mitigation is required.	LTS
5.8-9: Near Term Cumulative impacts to transit facilities.	LTS	No mitigation is required.	LTS
5.8-10: Near Term Cumulative impacts to bicycle facilities.	LTS	No mitigation is required.	LTS
5.8-11: Near Term Cumulative impacts to pedestrian facilities.	LTS	No mitigation is required.	LTS
5.9 Public Services and Recreation			
5.9-1: Increase the need for police protection services. The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. This would result in the need for less than one new sworn officer. In addition, compliance with General Plan Policies PHS 1.1.7 and 1.1.8 would result in a less-than-significant impact.	LTS	No mitigation is required.	LTS
5.9-2: Increase the need for fire protection facilities. The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. This would not result in the need for new or expanded fire protection facilities. In addition, compliance with General Plan Policies PHS 2.1.2, 2.2.4, and 2.2.11 would result in a less-than-significant impact.	LTS	No mitigation is required.	LTS
5.9-3: Result in the need for expanded emergency facilities. The proposed project would result in the addition of an estimated 318 additional residents in the area. However, the services of Sutter Memorial Hospital would be consolidated into new facilities at Sutter Medical Center. Also, General Plan policies are in place to ensure that emergency services and response would be provided to serve the anticipated increase in demand. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.2-4: Result in the need for expanded school facilities. The proposed project would develop up to 125 residential units which would result in an estimated 99 new students. The public schools that serve the project site all have sufficient capacity. In addition, compliance with SB 50 would result in a less-than-significant impact.	LTS	No mitigation is required.	LTS
5.9-5: Result in the need for expanded library facilities. The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. The Sacramento Public Library system would have sufficient capacity to serve this increase. In addition, compliance with General Plan Policies ERC 3.1.1, 3.1.3, and 3.1.9 would result in a less-than-significant impact.	LTS	No mitigation is required.	LTS
5.9-6: Need for expanded recreational facilities. The proposed project would be required, by City code, to provide 1.68 acres of neighborhood and community park facilities. The proposed project would include 0.7 acres of parkland and pay in-lieu fees, pursuant to the State Quimby Act. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.9-7: Cumulative effect on public services and recreation. The proposed project, in combination with other development in East Sacramento, would not cause a substantial adverse change in public services and recreation. The proposed project would comply with all applicable City goals and policies. Therefore, the proposed project would not contribute to a cumulative effect on public services and recreation.	LTS	No mitigation is required.	LTS
5.10 Utilities and Service Systems			
5.10-1: Increase demand for potable water in excess of existing supplies. The Sutter Park Neighborhood Project is anticipated to require considerably less potable water than existing uses on the project site. This impact would be less than significant.	LTS	No mitigation is required.	LTS

NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and Unavoidable

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.10-2: Require construction of new water supply facilities because of inadequate capacity to serve the project. The proposed project is anticipated to reduce overall water demand for the site; therefore, there would not be a lack of capacity in the City's water supply facilities that would necessitate the construction of new water supply facilities. There would be no impact to the City's water supply capacity.	NI	No mitigation is required.	LTS
5.10-3: Require the expansion of existing water utilities. The proposed project would not require new off-site utilities. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report and would have a less-than-significant environmental impact.	LTS	No mitigation is required.	LTS
5.10-4: Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments. The project would generate less wastewater than existing uses on the site, resulting in reduced demand for wastewater treatment. There would be no impact to existing wastewater treatment capacity.	NI	No mitigation is required.	LTS
5.10-5: Require or result in either the construction of new utilities or the expansion of existing wastewater utilities, the construction of which could cause significant environmental effects. The City of Sacramento Department of Utilities has reviewed the project and determined that off-site aspects of the combined sewer system have adequate capacity to serve the development. The proposed project would not require new off-site utilities. Design of onsite aspects of the systems would be approved by the City prior to recordation of a final subdivision map. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report and would have a less-than-significant environmental impact.	LTS	No mitigation is required.	LTS

Table ES-1 Summary of Impacts and Mitigation Measures			
Impact	Significance Before Mitigation	Mitigation Measure	Significance After Mitigation
5.10-6: Result in the determination that adequate capacity is not available to serve the project's demand for stormwater conveyance or require the expansion of existing stormwater utilities. The City of Sacramento Department of Utilities has reviewed the project and determined that the existing storm drainage system has adequate capacity to serve the project development. Design of onsite aspects of the systems would be approved by the City prior to recordation of a final subdivision map. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.10-7: Environmental impacts from new or expanded solid waste facilities. Project demolition, construction, and operation would not produce solid waste in excess of the capacity at existing solid waste facilities serving the project site. This impact would be less than significant.	LTS	No mitigation is required.	LTS
5.10-8: Environmental impacts from new or expanded energy production or power transmission facilities. Energy use of the Sutter Park Neighborhood Project is anticipated to be less than the exiting demand of the Sutter Memorial Hospital. Therefore, new or expanded energy production or power transmission facilities would not be required and there would be no impact.	NI	No mitigation is required.	LTS
5.10-9: Environmental impacts from new or expanded telecommunication facilities. The new or expanded telecommunication facilities that may be required by the project would be consistent with the respective utilities' existing expansion and maintenance plans. Therefore, this impact would be less than significant.	LTS	No mitigation is required.	LTS
5.10-10: Result in the determination that adequate capacity is not available to serve the project's demand for utilities or require the expansion of existing utilities. The proposed project would result in a reduced demand for public utilities There would be no cumulative impact to public utilities.	LTS	No mitigation is required.	LTS

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1 INTRODUCTION

1.1 PROPOSED PROJECT

The Sutter Park Neighborhood Project (proposed project) would establish a Planned Unit Development (PUD) on the property on which Sutter Memorial Hospital and its associated offices and related-care facilities are located. The area is comprised of approximately 19 acres located in the Coloma Terrace neighborhood of East Sacramento in the City of Sacramento. The proposed project site is bordered by 51st Street to the north, single-family homes on E Street and Coloma Way to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east (see Exhibit 3-2 in Chapter 3, “Project Description”). The project proposes to demolish the existing hospital and related structures and to establish mixed-residential uses to reflect the historic look and feel of East Sacramento’s residential neighborhoods and to facilitate walking and biking. The proposed PUD would provide for construction of up to a total of 125 residential units within a mixed-residential community. The project would also provide for construction of up to 5,000 square feet of commercial retail on a residential mixed use parcel that would allow for limited neighborhood commercial uses. The proposed project is described in detail in Chapter 3, “Project Description,” of this Draft Environmental Impact Report (EIR).

1.2 TYPE AND PURPOSE OF THE DRAFT ENVIRONMENTAL IMPACT REPORT

1.2.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This Draft EIR has been prepared in conformance with the California Environmental Quality Act (CEQA) of 1970 (as amended) to evaluate the environmental impacts associated with development and operation of the proposed project.

CEQA requires that a local agency prepare an EIR on any project it proposes to approve that may have a significant effect on the environment. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision-makers, public agencies, and the general public with an objective and informational document that fully discloses the potential environmental effects of a proposed project. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a proposed project; to identify alternatives that reduce or eliminate a project’s significant effects; and to identify feasible measures that mitigate significant effects of a project. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation.

1.2.2 TYPE OF ENVIRONMENTAL IMPACT REPORT

In accordance with Section 15161 of the State CEQA Guidelines, this document is a project EIR that examines the environmental impacts of a specific proposed project. A project EIR is an informational document designed to provide the basis for the local planning and decision-making process. A project EIR is the most common type of EIR, examining the environmental impacts of a specific development. This type of EIR focuses on the changes in the environment that would result from the development project. In accordance with the State CEQA Guidelines, a project EIR must examine the environmental effects of all phases of the project, including construction and operation.

1.3 SCOPE AND ORGANIZATION OF THE DRAFT EIR

1.3.1 SCOPE OF THE DRAFT EIR

Pursuant to CEQA and the State CEQA Guidelines, a lead agency shall focus an EIR's discussion on significant environmental effects and may limit discussion on other effects to brief explanations about why they are not significant (PRC Section 21002.1, State CEQA Guidelines Section 15143). Furthermore, the EIR must also discuss the manner in which significant impacts can be feasibly mitigated or avoided.

The City of Sacramento, as lead agency, identified potentially significant impacts that could result from implementation of the proposed project. This EIR addresses the following technical issue areas:

- Aesthetics,
- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural Resources,
- Hazards and Hazardous Materials,
- Noise,
- Transportation and Traffic,
- Public Services and Recreation, and
- Utilities and Service Systems.

The specific topics evaluated are described in each of the technical sections presented in Chapter 5. Land Use, Population, and Employment is not considered a technical issue and is addressed in a separate chapter (see Chapter 4).

1.3.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when they are not considered potentially significant (Public Resources Code Section 21002.1(e); State CEQA Guidelines Sections 15128 and 15143). Information used to determine which impacts would be potentially significant was derived from a review of applicable planning and CEQA documentation, field work, a review of the project, feedback from ongoing public and agency consultation, and comments received on the Notice of Preparation (NOP) (Appendix A).

Effects on the following resources were found not to be significant, and therefore, are not included in the detailed analysis of potential project impacts:

LAND USE

There are no habitat conservation plans or natural community conservation plans associated with the project site; therefore, consistency with such plans is not discussed further. The proposed project would not divide the established East Sacramento community, but would increase connectivity and would be more compatible with the existing surrounding land uses than the existing hospital. For a discussion of consistency with applicable land use plans and policies, please see Chapter 4, "Land Use, Population, and Housing."

AGRICULTURAL AND FORESTRY RESOURCES

No agricultural uses currently exist on the proposed project site, and the site is designated by the Farmland Mapping and Monitoring Program (FMMP) as "Urban and Built-up." The designation for much of the adjacent lands surrounding the project site is Urban and Built Up. The proposed project site is not on, or near, any land with the FMMP designation of Prime or Unique Farmland or Farmland of Statewide Importance, nor is it on or near any land with a Williamson Act contract. Thus, development of the proposed project would not convert any prime farmland, unique farmland, or farmland of statewide importance; would not conflict with existing zoning for agricultural use of a Williamson Act contract; and would not involve any changes in the existing environment that could result in conversion of farmland to nonagricultural use. The proposed project site does not contain forestry resources that would be defined as forest land under State CEQA Guidelines Appendix G, and development of the site would not result in conversion of forest land to non-forest use. Therefore, these issues are not discussed further in this EIR.

GEOLOGY AND SOILS

Although all of California is typically regarded as seismically active, there are no known faults in the greater Sacramento region, and the Central Valley region does not commonly experience strong groundshaking resulting from earthquakes. Although groundshaking may occur within the greater Sacramento region, the California Geological Survey probabilistic seismic hazards map shows that the seismic ground-shaking hazard for the City and county of Sacramento is relatively low, ranking among

the lowest in the state. Due to the low probability of groundshaking affecting the project site, the possibility of seismic-induced ground failure is remote.

Some common seismic hazards such as fault rupture, tsunamis and seiches, and seismic-induced landslides are not considered to be major threats to any areas within the greater Sacramento region, due to its distance from known faults and large bodies of water, and the region's flat topography. The Sacramento area is not near any areas of volcanic activity, so there are no mudflow hazards. Liquefaction occurs where surface soils, generally alluvial soils, become saturated with water and become mobile during groundshaking caused by a seismic event. When these soils move, the foundations of structures move as well, which can cause structural damage. Liquefaction generally occurs below the water table, but can move upward through soils after it has developed.

Policy EC 1.1.2 of the City of Sacramento 2030 General Plan requires that each project within the City prepare a site-specific geotechnical investigation that addresses a range of geologic and soils considerations, with specific reference to expansive soils and subsidence, among others. Soil samples must be collected from the project site and analyzed for specific chemical and physical characteristics. The City requires that the site-specific geotechnical report be conducted by registered soil professionals, and measures to eliminate inappropriate soil conditions must be applied, depending on the soil conditions. The results of soil sampling and laboratory analysis prepared as part of the geotechnical investigation required to ensure conformance with Policy EC 1.1.2 would be used to provide the design parameters of foundation and excavation-wall support to ensure conformance with criteria set forth in the 2010 California Building Code (CBC), Chapters 16, 18, 33, and the appendix to Chapter 33. Adherence to the CBC requirements and City policies contained in the 2030 General Plan would ensure expansive soil hazards are properly mitigated.

Compliance with Chapter 15.88 of the Sacramento Municipal Code, also known as the Land Grading and Erosion Control Ordinance, requires that an Erosion and Sediment Control Plan be prepared for any project where 350 cubic yards or more of soil is excavated and/or disposed. It also requires best management practices (BMPs) that must be approved by the City. The ordinance would apply because more than 350 cubic yards of soil would be disturbed. An erosion control professional, landscape architect, or civil engineer specializing in erosion control must design the Erosion and Sediment Control Plan and be on the project site during the installation of erosion and sediment control measures, and supervise implementation of the installation and maintenance of such facilities throughout the site clearing, grading and construction periods. In addition, Policy ER 1.1.7 of the City of Sacramento 2030 General Plan reinforces these requirements by directing that construction contractors comply with the City's erosion and sediment control ordinance. With implementation of these requirements, there would be no additional significant environmental effects over those identified in the Master EIR.

For these reasons, erosion and seismically induced groundshaking and secondary effects would not be a substantial hazard on the project site and will not be discussed further in this EIR. A discussion of the potentially contaminated soils is included in Section 5.6, "Hazards and Hazardous Materials."

MINERAL RESOURCES

Under the State Mining and Reclamation Act, areas containing economically significant mineral deposits are classified and mapped. These mineral resource zones (MRZs) are used in land use planning to show the likelihood of the occurrence of mineral resources in a particular area. Areas classified as MRZ-2 are considered to have the likelihood of significant mineral deposits that could be economically beneficial to society. Areas classified as MRZ-1 or MRZ-3 are not considered to contain significant mineral deposits.

The *City of Sacramento 2030 General Plan MEIR* (2009) indicates that the project area is classified as MRZ-3. The project area is not located within or near an area of significant mineral deposits; therefore, no loss of availability of a known mineral resource would occur, and this issue is not discussed further in this EIR.

HYDROLOGY AND WATER QUALITY

Construction activities (e.g., grading and trenching) could expose soil to increased rates of erosion, which could result in increased deposition of sediments, potentially degrading receiving water quality. Another potential source of water quality degradation during project construction is the inadvertent release of petroleum-based fluids and/or heavy metals used in heavy equipment. Construction projects are required to comply with the City's Erosion and Sediment Control, and with the City's National Pollutant Discharge Elimination System permit. Both of these regulations require that the City employ best management practices (BMPs) before, during and after construction. Temporary construction BMPs could include concrete washouts, silt fences, inlet protection, stabilized construction entrance/exits, and fiber rolls.

Improvements to the project site would be required to comply with regulations involving the control of pollution in stormwater discharges under the City's Stormwater Management and Discharge Control Code (Title 13, Chapter 13.16). This code requires all development to prevent pollutants from entering the stormwater conveyance system and the preparation of a stormwater pollution prevention plan (SWPPP). The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and BMPs monitoring and maintenance schedule to determine quantities of pollutants leaving the site. SWPPP BMPs are recognized as effective methods to prevent or minimize the potential releases of pollutants into drainages, surface waters, or groundwater. Strict SWPPP compliance coupled with using the appropriate BMPs would reduce potential water quality impacts.

For these reasons, the proposed project would not degrade water quality and this topic will not be discussed further in this EIR. The discussion of the possible discovery of contaminated groundwater during construction or dewatering activities is included in Section 5.6, "Hazards and Hazardous

Materials." A discussion of drainage and stormwater conveyance is included in Section 5.10, "Utilities and Service Systems."

1.3.3 ORGANIZATION OF THE DRAFT EIR

This report includes six principal parts: Project Description, Summary of Impacts and Mitigation Measures, Land Use, Population, and Housing, Environmental Analysis (Setting, Impacts, and Mitigation Measures), Other CEQA Considerations, and Alternatives.

The **Summary of Environmental Effects** (Chapter 2) presents an overview of the results and conclusions of the environmental evaluation. This section identifies impacts of the proposed project and available mitigation measures.

The **Project Description** (Chapter 3) describes the location of the project, the project background, existing conditions on the project site, and the nature and location of specific elements of the proposed project that are proposed for construction.

Land Use and Planning/Population and Housing (Chapter 4) addresses the land use and planning implications of the project and discusses consistency with land use policies. This chapter also describes existing levels of and trends in population and housing in the City of Sacramento. It identifies the proposed project's development assumptions and analyzes projected population and housing growth in relation to City projections.

The **Environmental Analysis** (Chapter 5) includes a topic-by-topic analysis of impacts that would or could result from implementation of the proposed project. The analysis is organized in 10 topical sections. Each section is organized into two major subsections: Setting (existing conditions), and Impacts and Mitigation Measures, including cumulative impacts.

CEQA Considerations (Chapter 6) discusses issues required by CEQA: unavoidable adverse impacts, irreversible environmental changes, growth inducement, and a summary of cumulative impacts.

Alternatives (Chapter 7) includes a description of the project alternatives. An EIR is required by CEQA to provide adequate information for decision makers to make a reasonable choice between alternatives based on the environmental aspects of the proposed project and alternatives. As demonstrated in Table 7-1, this chapter provides a comparison of the impacts of the alternatives compared to those of the proposed project. This chapter also identifies the environmentally superior alternative.

The **References** (Chapter 8) used throughout the Draft EIR are included in this chapter.

Report Preparation (Chapter 9) includes a list of preparers of the Draft EIR.

The **Appendices** contain a number of reference items providing support and documentation of the analyses performed for this report.

1.4 DEFINITION OF BASELINE

According to Section 15125 of the State CEQA Guidelines, baseline conditions are normally defined as the physical environmental conditions in the vicinity of the project as they exist at the time that the NOP is published. Therefore, for the purposes of this document the baseline conditions are defined as the conditions that existed in the project vicinity as of November 14, 2012. This baseline condition was used as the basis for determining the level of significance of impacts of the proposed project.

The baseline setting includes the operation of Sutter Memorial Hospital and the associated medical and office uses on the Sutter Memorial Hospital site. These uses will be transferred to the expanded Sutter Medical Center, upon completion of the Women's and Children's Center (please see Chapter 3, "Project Description," for full description).

The 2005 Sutter Medical Center Project and the Trinity Cathedral Project Draft EIR analyzed the potential impacts (including those related to transportation, utilities, and public service) of operation of the proposed Women's and Children's Center. The EIR assumed that Sutter Memorial Hospital would be reused or retrofitted in some fashion, but the reuse was not known and was not evaluated. Therefore, this EIR analyzes the impacts of the proposed project (transportation, services, and utilities) in comparison to the existing uses on the project site (see Sections 5.2, "Air Quality"; 5.4, "Climate Change"; and 5.8, "Transportation and Traffic"). Please also see Chapter 7, "Alternatives," for a discussion a comparison between the impacts of the proposed project and an empty project site.

1.5 SIGNIFICANCE CRITERIA

The City of Sacramento's established significance standards, in conjunction with the environmental checklist in Appendix G of the State CEQA Guidelines, were the primary sources of environmental questions considered in developing significance criteria for this EIR. Significance criteria for each resource area are listed under the impacts heading in Sections 1 through 10 of Chapter 5, Environmental Analysis.

1.6 DEFINITION OF TERMS

To assist in the understanding of this report, the following descriptions, as found in Article 20 of the State CEQA Guidelines, are provided:

- "Project" means the whole of an action, which has the potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment directly or ultimately.
- "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment.

A social or economic change related to a physical change may be considered in determining whether the physical change is significant.

- "Environment" means the physical conditions that exist within the area which will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions.

- "Effects" and "impacts" as used in this document are synonymous. Effects analyzed under CEQA must be related to a physical change. Effects include:
  - direct or primary effects that are caused by the project and occur at the same time and place, and
  - indirect or secondary effects that are caused by the project and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.

- "Mitigation" includes:
  - avoiding the impact altogether by not taking a certain action or parts of an action;
  - minimizing impacts by limiting the degree or magnitude of the action and its implementation;
  - rectifying the impact by repairing, rehabilitating, or restoring the impacted environment;
  - reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; or
  - compensating for the impact by replacing or providing substitute resources or environments.

- "Cumulative impacts" refers to two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts:
  - The individual effects may be changes resulting from a single project or a number of separate projects.
  - The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

This Draft EIR uses a variety of terms to describe the level of significance of adverse impacts identified during the course of the environmental analysis. These terms are defined below.

- A "less-than-significant impact" is an impact that is adverse but that does not exceed the defined standards of significance. Less-than-significant impacts do not require mitigation.

- A “significant impact” is an impact that exceeds the defined standards of significance and would or could cause a substantial adverse change in the environment. Mitigation measures are recommended to eliminate the impact or reduce it to a less-than-significant level.
- A “potentially significant impact” is an impact for which there is not enough information to definitively conclude the impact would be significant, but based on reasonable expectations, the impact is considered significant. A potentially significant impact is equivalent to a significant impact and requires the identification of feasible mitigation measures or alternatives.

A “significant and unavoidable impact” is an impact that exceeds the defined standards of significance and that cannot be eliminated or reduced to a less-than-significant level through the implementation of mitigation measures.

1.7 CEQA PROCESS

In accordance with the CEQA Guidelines, a Notice of Preparation (NOP) was distributed November 14, 2012 for a 30-day agency and public review period. The NOP was distributed to responsible agencies, interested parties, business owners, residences, and landowners within 500 feet of the project area. The purpose of the NOP was to provide notification that an EIR for the project would be prepared and to solicit guidance on the scope and content of the document. A summary of the comments received on the NOP is included in each technical chapter. Appendix A contains a copy of the NOP, and comment letters received on the NOP are included in Appendix B. Table 1-1 below lists the NOP comments received and the location of the response in this EIR.

Table 1-1 Comment Letters and Discussion Location in Draft EIR

NOP Comment Letter	Comment/Topic	Addressed on Draft EIR Page
Letter 1 California Department of Fish and Game	Biological Resources 1. Comment regarding no “natural” habitat on the project site, and recommendation to address the timing and removal of mature trees on the project site that could provide nesting habitat for birds	1. 5.3-10 through 5.3-13
Letter 2 Sacramento Regional County Sanitation District	Utilities and Service Systems 1. Need for sewer studies, including points of connection and phasing information, to fully assess the project’s potential to increase existing or future flow demands. Identification of all onsite and off-site effects associated with constructing sanitary sewer facilities to provide service to the project.	1. 5.10-6 through 5.10-10
Letter 3 City of Sacramento Fire Department	Public Services and Recreation 1. Fire protection	1. 5.9-11 through 5.9-12
Letter 4 Environmental Council of Sacramento	Alternatives 1. Recommends that the Draft EIR include a higher density alternative.	1. 3-11 and 7-3

Table 1-1 Comment Letters and Discussion Location in Draft EIR

NOP Comment Letter	Comment/Topic	Addressed on Draft EIR Page
Letter 5 Sacramento Area Bicycle Advocates	Transportation/Traffic; Land Use, Population and Housing 1. Requests that the EIR address compliance with City of Sacramento's "Pedestrian Friendly Street Standards" Policy; 2. City of Sacramento's 2030 General Plan goals M 1.3, M 4.2, and M 5.1; 3. Adequacy of bicycle parking facilities; 4. Adequacy of pedestrian and bicyclist safety features.	1. 5.8-50 2. 4-12 3. 5.8-50 4. 4-12
Letter 6 Thomas Meyer	Land Use, Population and Housing; Noise; Air Quality; Project Description 1. Property value; 2. Noise; 3. Pollution; 4. Timing of the Notice of Preparation of an EIR and scoping meeting (before the City holds public hearings to amend the 2030 General Plan).	1. 4-7 through 4-8 2. 5.7-17 through 5.7-25 3. 5.2-17 through 5.2-24 4. 3-28 through 3-29
Letter 7 Kathryn Karrer	Suggestion that those who worked at Sutter over the years might want a "reunion" occasion.	Comment forwarded to project applicant for consideration
Letter 8 Jess Muss	Noise; Transportation/Traffic; Air Quality 1. Noise, traffic and dust associated with demolition of the current site, and traffic and noise associated with the redevelopment of the site, including potential prolonged effects associated with extended buildout of the site.	1. 5.7-17 through 5.7-25 2. 5.8-49 through 5.8-53 3. 5.2-17 through 5.2-24
Letter 9 Tom Sisterson	Hazards and Hazardous Materials; Noise; Transportation/Traffic; Project Description 1. Potential release of lead-based paint and asbestos-containing materials during demolition of the hospital buildings and construction runoff and soil contamination; 2. Potential noise and vibration levels that could occur in the nearby community during construction activities; 3. Potential road closure; 4. Damage to roads by construction equipment; demolition; 5. Effects on homes closest to the project site.	1. 5.6-17 through 5.6-22 2. 5.7-19 through 5.7-24 3. 5.8-51 through 5.8-53 4. 3-27 5. 5.7-19 through 5.7-24
Letter 10 Tim Gaffney	Air Quality/Noise 1. Construction noise, dust, etc.	1. 5.2-17 through 5.2-23 2. 5.7-19 through 5.7-24
Letter 11 Maureen Daly Pascoe	Introduction; Project Description; Transportation/Traffic 1. Process for public participation between conclusion of NOP and Draft EIR publication; 2. Original permits for hospital cannot be located therefore assumptions included are unknown; 3. Demolition permit; 4. Inclusion of adjacent medical building in General	1. 1-12 through 1-13 2. 5-2 3. 3-29 4. This building is not part of the

Table 1-1 Comment Letters and Discussion Location in Draft EIR

NOP Comment Letter	Comment/Topic	Addressed on Draft EIR Page
	Plan amendment; 5. Thresholds of significance; 6. Potential effect on neighborhood businesses and identification by the City of ways to assist businesses through the transition; 7. PUD should contain wide variety of housing types and any lots designated for commercial use should be able to be developed as residential; 8. Site should be designed to weave it into the existing fabric; 9. Impacts from haul trucks during demolition; 10. Traffic and parking impacts during construction; 11. Recommends that project correct some of the problems and deficiencies in the surrounding area: inadequate sidewalks, street lighting, drainage, rolled curbs, utility undergrounding, etc.; 12. Designation of F Street, 53rd Street, or any other street as a neighborhood collector; 13. Distribution of traffic throughout the existing area; 14. Requests removal of traffic signal at 53rd and H Streets; 15. Speed control on 53rd; 16. Immediate conversion of the neighborhood parking limits to one hour on 53rd; 17. Request for enforceable deadlines for progress on demolition, cleanup, and rebuilding of the site.	proposed project. 5. 1-7 and 5-3 6. 4-7 through 4-8 7. 3-20 through 3-25 8. 3-11 and 4-8 9. 3-27 10. 5.8-51 through 5.8-53 11. 3-26 through 3-27 12. Table 5.8-5 13. Exhibit 5.8-10 14. 5.8-13 through 5.8-15 15. 5.8-21 16. Exhibit 5.8-4 17. Table 3-2
Letter 12 Katie Hansen	Aesthetics 1. Potential spillover light that could occur in the nearby community during construction activities.	1. 5.1-21 through 5.1-22
Letter 13 Andy Carey	Public Services and Recreation/Project Description 1. Shape and scale of the proposed neighborhood park.	The design of the park will be coordinated through the City Department of Parks and Recreation park master planning process.
Letter 14 Thomas Meyer	Land Use, Population and Housing 1. Loss of value to house due to potential project.	1. 4-7 through 4-8
Letter 15 Thomas Meyer	Land Use, Population and Housing; Public Utilities; Hazards and Hazardous Materials 1. Site not zoned residential and not listed on the current General Plan's Opportunity Areas list for East Sac Housing. Consistency with the Senior Housing, Low Income Housing or Mixed Income Housing Core Elements; 2. Existing sewer system flooding; 3. Release of toxins during demolition; 4. Housing values of adjacent homes, integrity of the area, effects to the recent recovery of the housing market.	1. 4-8 through 4-9 2. 5.10-13 through 5.10-14 3. 5.6-17 through 5.6-22 4. 4-7 through 4-8

A public scoping meeting was held on December 6, 2012. Responsible agencies and members of the public were invited to attend and provide input on the scope of the EIR. Public or agency comments submitted at the scoping meeting included general questions about the CEQA process, questions about the proposed project (e.g., types of residential units, number of residential units, whether the project would include affordable housing), effects of the proposed project on adjacent uses and vice versa, and economic impacts of the proposed project. Questions raised at the scoping meeting that are pertinent to the environmental analysis are addressed in this Draft EIR. This Draft EIR will be circulated for public review and comment for a period of 45 days. Upon completion of the public review period, a Final EIR will be prepared that will include written comments on the Draft EIR received during the public review period and the City's responses to those comments. The Final EIR will also include the Mitigation Monitoring Program (MMP). The Final EIR will address any revisions to the Draft EIR made in response to public comments or at the direction of the lead agency. The Draft EIR and Final EIR together will comprise the EIR for the proposed project.

Before the City of Sacramento can approve the project, it must first certify that the EIR was completed in compliance with CEQA, that the City Council reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City. The City Council will also be required to adopt Findings of Fact for those impacts determined to be significant and unavoidable, and adopt a Statement of Overriding Considerations.

1.7.2 PUBLIC REVIEW OF THE DRAFT EIR AND LEAD AGENCY CONTACT

Upon publication of this Draft EIR, the City will provide public notice of the document's availability for public review and invite comment from the general public, agencies, organizations, and other interested parties. Copies of the Draft EIR will be available on the City's website at
http://www.cityofsacramento.org/dsd/planning/environmental-review/eirs/
and at the following locations:

City of Sacramento Community Development Department
300 Richards Boulevard, Third Floor
Sacramento, CA 95811
(Open to the public from 9:00 am to 4:00 pm)

Sacramento Public Library
828 I Street
Sacramento, CA 95814

The public review and comment period is 45 days from October 11, 2013 to November 25, 2013. Comments on the Draft EIR must be submitted in writing to the City by November 25, 2013. All comments or questions regarding the Draft EIR should be addressed to:

Scott Johnson
Environmental Planning Services
City of Sacramento Community Development Department
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811
(916) 808-5842
srjohnson@cityofsacramento.org

1.7.3 LEAD, RESPONSIBLE, AND TRUSTEE AGENCIES

The City of Sacramento is the lead agency for preparation of the Sutter Park Neighborhood Project environmental analysis. In conformance with sections 15050 and 15367 of the State CEQA Guidelines, the “lead agency” is “public agency which has the principal responsibility for carrying out or disapproving a project.” The lead agency is also responsible for scoping the analysis, preparing the EIR, and responding to comments received on the Draft EIR. Prior to making a decision to approve a project, the lead agency is required to certify that the EIR has been completed in compliance with CEQA, that the decision-making body reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the lead agency.

The EIR prepared for the proposed project would be used by Responsible Agencies and Trustee Agencies that may have some approval authority over the proposed project (i.e. issue a permit). The project applicant would obtain all permits, as required by law. The Sacramento Metropolitan Air Quality Management District, the State Water Resources Control Board, and the Office of Statewide Health Planning & Development (“OSHPD”) have been identified as agencies that may have discretionary authority over approval of certain project elements, or alternatively, may serve in a ministerial capacity.

1.7.4 REQUIRED PERMITS AND APPROVALS

The City approvals/actions that would be considered for the proposed project include, but are not limited to:

- General Plan Amendment [Public/Quasi-Public to Traditional Neighborhood Low (19.36± acres)];
- Rezone 18.56± net acres of H to R-1A (PUD), .23± net acres of H to RMX (PUD), .57± net acres of H to R-3 (PUD);
- Tentative Subdivision Map and associated Subdivision Modifications (as detailed on the Tentative Map); and
- PUD Establishment and PUD Schematic Plan.

Review of the proposed project by the Preservation and Planning and Design Commissions would be conducted as a part of the EIR review and entitlements process. The project entitlements would ultimately require approval by the City Council.

State approvals/actions that would be considered for the proposed project include, but are not limited to:

- Office of Statewide Health Planning & Development ("OSHPD") Decommissioning of Onsite Hospital Facilities.

2 SUMMARY OF ENVIRONMENTAL EFFECTS

2.1 INTRODUCTION

This section summarizes the proposed project, impacts of the proposed project, comments received in response to the Notice of Preparation (NOP), and the proposed project impacts and applicable mitigation measures (see Sections 5.1 through 5.10 of this Draft EIR).

2.2 PROJECT UNDER REVIEW

The Sutter Park Neighborhood Project (proposed project) would establish a Planned Unit Development (PUD) on the property on which Sutter Memorial Hospital and its associated offices and related-care facilities are located. The area is comprised of approximately 19 acres located in the Coloma Terrace neighborhood of East Sacramento in the City of Sacramento. The proposed project site is bordered by 51st Street to the north, single-family homes to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east (see Exhibit 3-2 in Chapter 3, “Project Description”). Following the transfer of the medical uses to other Sutter facilities and the decommissioning of Sutter Memorial Hospital, the proposed project would demolish the existing hospital and related structures and reintroduce mixed-residential uses to reflect the historic look and feel of East Sacramento’s residential neighborhoods and to facilitate walking and biking. The proposed PUD would provide for construction of up to a total of 125 residential units within a mixed-residential community. There would also be a 5,000 square foot commercial retail use on a residential mixed use parcel that would allow for limited neighborhood commercial uses. The proposed project is described in detail in Chapter 3, “Project Description,” of this EIR.

2.3 SUMMARY OF IMPACTS

The Draft EIR addresses the following technical issue areas:

- Aesthetics,
- Air Quality,
- Biological Resources,
- Climate Change,
- Cultural Resources,
- Hazards and Hazardous Materials,
- Noise,
- Transportation and Traffic,
- Public Services and Recreation, and
- Utilities and Service Systems.

The specific topics evaluated are described in each of the technical sections presented in Chapter 5. Table 1 in the Executive Summary summarizes the impacts identified in the technical sections of this EIR. The proposed project impacts are identified for each technical section. The level of significance of each impact, any mitigation measures required for each impact, and the resultant level of significance after implementation of mitigation measures, are given within the table.

2.3.1 EFFECTS FOUND TO BE LESS THAN SIGNIFICANT

A number of project impacts identified in the Draft EIR were found to be less than significant, requiring no mitigation. These impacts can be found in sections 5.1, “Aesthetics”; 5.2, “Air Quality”; 5.4, “Climate Change”; 5.9, “Public Services and Recreation”; and 5.10, “Utilities and Service Systems.”

CEQA Guidelines Section 15126.4 requires that an EIR describe feasible mitigation measures that could minimize significant adverse impacts. Implementation of mitigation measures would either reduce the impact to a less-than-significant level or leave the impact as significant and unavoidable. In the course of drafting the EIR for this project, it was determined that numerous identified impacts could be reduced to a less-than-significant level with implementation of proposed mitigation measures described herein (see also Chapter 6, “Other CEQA Considerations”). These impacts can be found in sections 5.3, “Biological Resources”; 5.5, “Cultural Resources”; 5.6, “Hazards and Hazardous Materials”; 5.7, “Noise”; and 5.8, “Transportation and Traffic.”

2.3.2 ENVIRONMENTAL IMPACTS AND MITIGATION

Under CEQA, a significant effect on the environment is defined as a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project, including air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (CEQA Guidelines section 15382). Implementation of the proposed project would result in significant impacts to some of these resources, which are analyzed in Sections 5.1 through 5.10 of this document and summarized in Table 1 of the Executive Summary.

This Draft EIR discusses mitigation measures that could be implemented by the City and/or the project applicant to reduce potential adverse impacts to a level that is considered less than significant. Such mitigation measures are noted in this document and are found in the following sections: 5.3, “Biological Resources”; 5.5, “Cultural Resources”; 5.6, “Hazards and Hazardous Materials”; 5.7, “Noise”; and 5.8, “Transportation and Traffic.” An impact that remains significant after mitigation is considered an unavoidable adverse impact of the proposed project. One project-specific significant and unavoidable impact is identified in Section 5.7, “Noise.”

2.4 ALTERNATIVES TO THE PROPOSED PROJECT

The following summary describes the alternatives to the proposed project that are evaluated in this EIR. For a complete discussion of project alternatives, see Chapter 7, “Alternatives.”

2.4.1 ALTERNATIVES CONSIDERED BUT DISMISSED

This Draft EIR includes a discussion of three alternatives to the project that attempt to reduce the environmental impacts of the proposed project. In addition to the alternatives listed below, several alternatives were considered, but dismissed. These include the following:

- **Seismic Upgrade and Continued Hospital Use.** To address the need to comply with SB 1953, the option of upgrading Sutter Memorial Hospital was considered. However, due to costs associated with retrofitting the existing facility and the planned transfer of Sutter Memorial's uses to the new Women's and Children's Center, this alternative was determined to be infeasible.

- **Resale and Reuse of Property**
  - **Adaptive Residential Re-Use Alternative.** Under this alternative, a portion of the existing medical facilities at Sutter Memorial Hospital would be converted to multi-family residential. The project applicant performed a preliminary screening of on-site buildings for potential repurposing and concluded the North Wing was the only building warranting further evaluation. This decision was largely supported by a structural assessment of the buildings initiated by Sutter in 1997 and an evaluation of floor plate heights, exterior precast paneling, and column spacing. An architect and contractor were hired to assess the feasibility of repurposing the North Wing for multi-family residential uses. That assessment determined that the renovation costs made repurposing the North Wing infeasible.

  - **Adaptive Commercial Re-Use Alternative.** Under this alternative, a portion of the existing medical facilities at Sutter Memorial Hospital would be converted to other commercial uses such as retail or office uses. However, an evaluation of costs and the viability of sale of the existing property revealed this option was infeasible, for the same reasons discussed above.

- **Off-Site Alternative.** The proposed project is a redevelopment project, and off-site alternatives were not considered for further evaluation because an off-site alternative would not meet the project objective of redeveloping the project site. Because the uses on the project site would be discontinued, leaving the need for redevelopment of the site, a feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist.

2.4.2 ALTERNATIVES EVALUATED

This Draft EIR analyzes the following alternatives to the proposed project:

- **Alternative 1: No Project/No Development (Vacant Site).** This alternative assumes that the proposed project would not be built and there would be no new development of the site. Under this alternative, Sutter Memorial Hospital would be demolished and the site would remain vacant.

- **Alternative 2: No Project/No Action (Vacant Hospital).** This alternative assumes that Sutter Memorial Hospital operations would be transferred to other facilities but the existing buildings would not be demolished, and the proposed project would not be built.
- **Alternative 3: No 53rd Street Extension.** With this access alternative, the proposed project access at 53rd Street would not occur, but the project would include four other access locations similar to the proposed project. The north leg of the 53rd Street and F Street would continue to provide inbound-only movement to the adjacent medical building.

The relative effects of the alternatives are identified by impact area in Chapter 7, "Alternatives."

2.4.3 COMMENTS ON THE NOTICE OF PREPARATION

The City received 15 comment letters during the NOP public review period. The comment letters are included in the Draft EIR in Appendix B. The City received additional comments following the close of the public review period. The additional correspondence has also been included in Appendix B. The comments addressed the following issues of concern: aesthetic impacts associated with light and glare from street lights; potential air quality impacts, including dust from demolition and construction; potential biological impacts including tree removal and nesting birds; potential noise impacts associated with demolition and construction; potential traffic impacts on roadways including parking associated with the demolition and construction process and traffic distribution; potential impacts associated with vibration; adequacy of bicycle and pedestrian features; design and scale of parks; damage to roads from construction vehicles; underutilization of an infill site; and hazardous materials that may be encountered during demolition. Please see Table 1-1 in Chapter 1, "Introduction," for a table summarizing the NOP comments and the location of the appropriate Draft EIR chapter in which each comment is addressed.

Based on a review of the potential effects of the proposed project, the City determined that certain topics would not require further consideration in the Draft EIR (see Chapter 1, "Introduction"). Those topics include:

- Land Use (Note: for a discussion of consistency with applicable land use plans and policies, please see Chapter 4, "Land Use, Population, and Housing"),
- Agricultural and Forestry Resources,
- Geology and Soils,
- Mineral Resources, and
- Hydrology and Water Quality (Note: potential impacts due to discovery of groundwater contamination and drainage/stormwater conveyance are addressed in Sections 5.6 and 5.10, respectively).

3 PROJECT DESCRIPTION

3.1 INTRODUCTION

The Sutter Park Neighborhood Project (proposed project)[1] would establish a Planned Unit Development (PUD) on approximately 19 acres located in the Coloma Terrace neighborhood of East Sacramento in the City of Sacramento (see Exhibit 3-1, Project Location), a predominantly traditional residential neighborhood dominated by single family homes built in the late 1930s to the 1950s, parks, and limited neighborhood-serving commercial uses and medical related facilities that were built up as a result of the site's long-term hospital use. The proposed project site is bordered by 51st Street to the north, single-family homes on E Street and Coloma Way to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east (see Exhibit 3-2, Project Vicinity). The proposed PUD would provide for construction of up to a total of 125 residential units within a mixed-residential community. There would be approximately 5,000 square feet of commercial retail on a residential mixed-use parcel that would allow for limited neighborhood commercial uses.

The project site is currently developed and contains the Sutter Memorial Hospital and its associated offices and related-care facilities. The proposed project would include decommissioning and demolition of the existing hospital and related structures and mixed-residential uses to reflect the historic look and feel of East Sacramento's residential neighborhoods and to facilitate walking and biking. The project would create a neighborhood consisting of a mixture of land uses including single-family, attached, and mixed-use housing, community gardens, parks and open spaces.

3.2 PROPOSED PROJECT

3.2.1 PROJECT SITE

EXISTING BUILDINGS

There are 12 buildings on the Sutter Memorial Hospital campus (see Exhibit 3-3, Sutter Memorial Hospital Site) totaling 476,452 square feet (Table 3-1). The original building, the Old Maternity Hospital, was completed in 1937. Expansions began in 1950 with the addition of the Main Hospital, located adjacent to and northeast of the Old Maternity Building and connected to the Old Maternity Building via the northern and eastern wings of the Old Maternity Building. Major development activities continued at Sutter Memorial Hospital until approximately the early 1980s. By 1987, the 50 year old hospital had grown into a 378 bed, tertiary-care facility with specialized centers in cardiology, perinatology, oncology, and pediatrics.

[1] Note: In the Notice of Preparation for the proposed project, the project was called the Sutter Memorial Site Project.

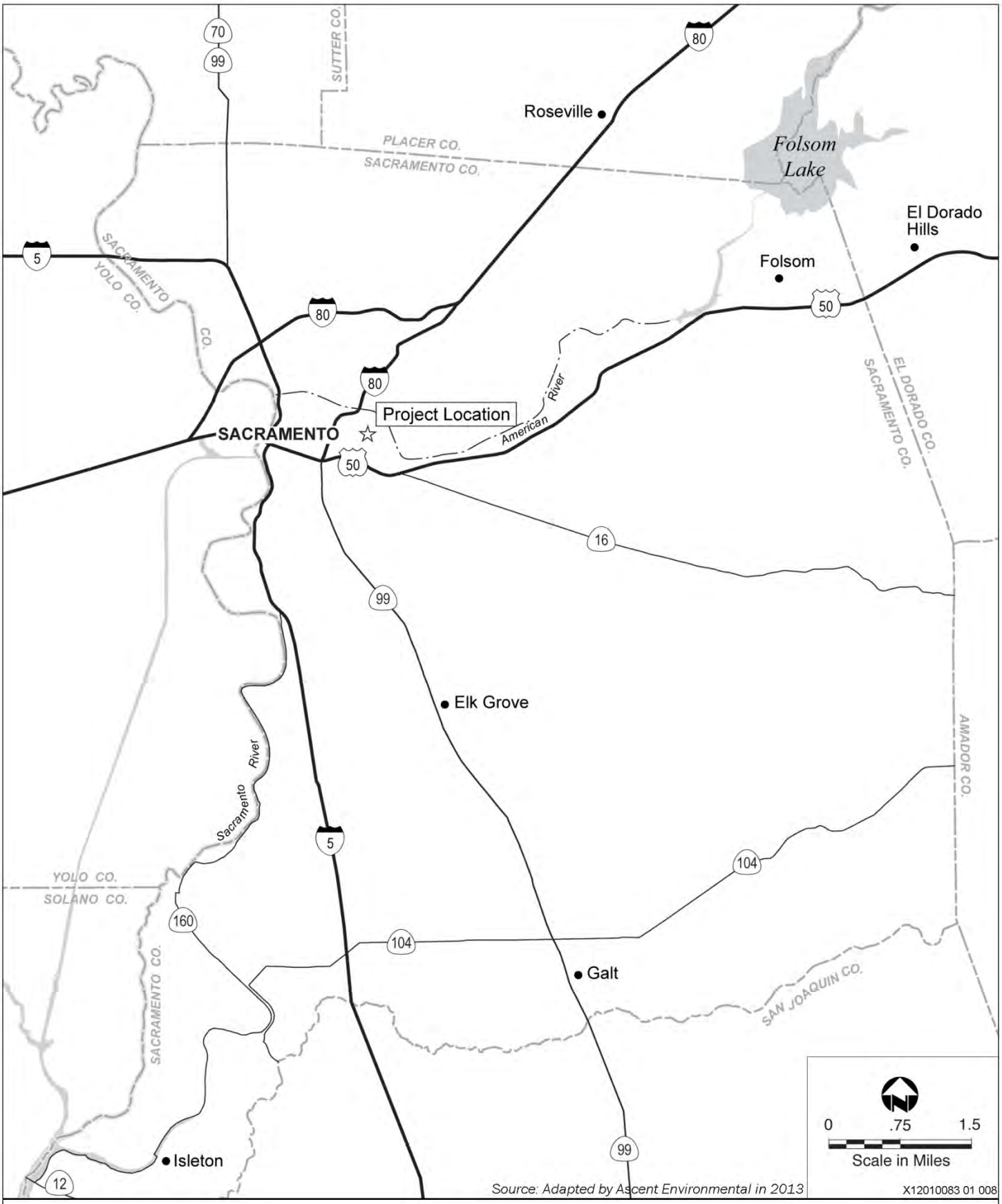
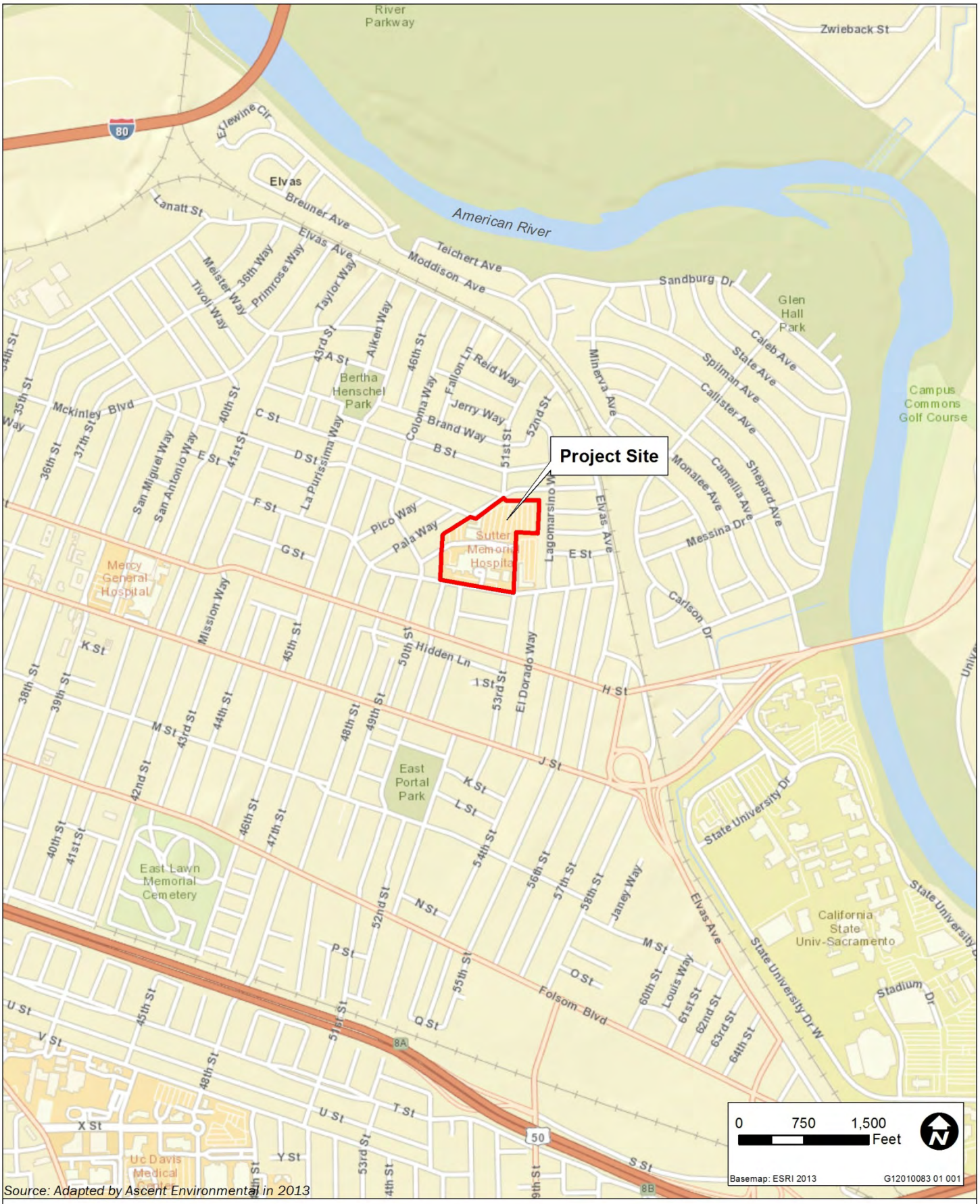
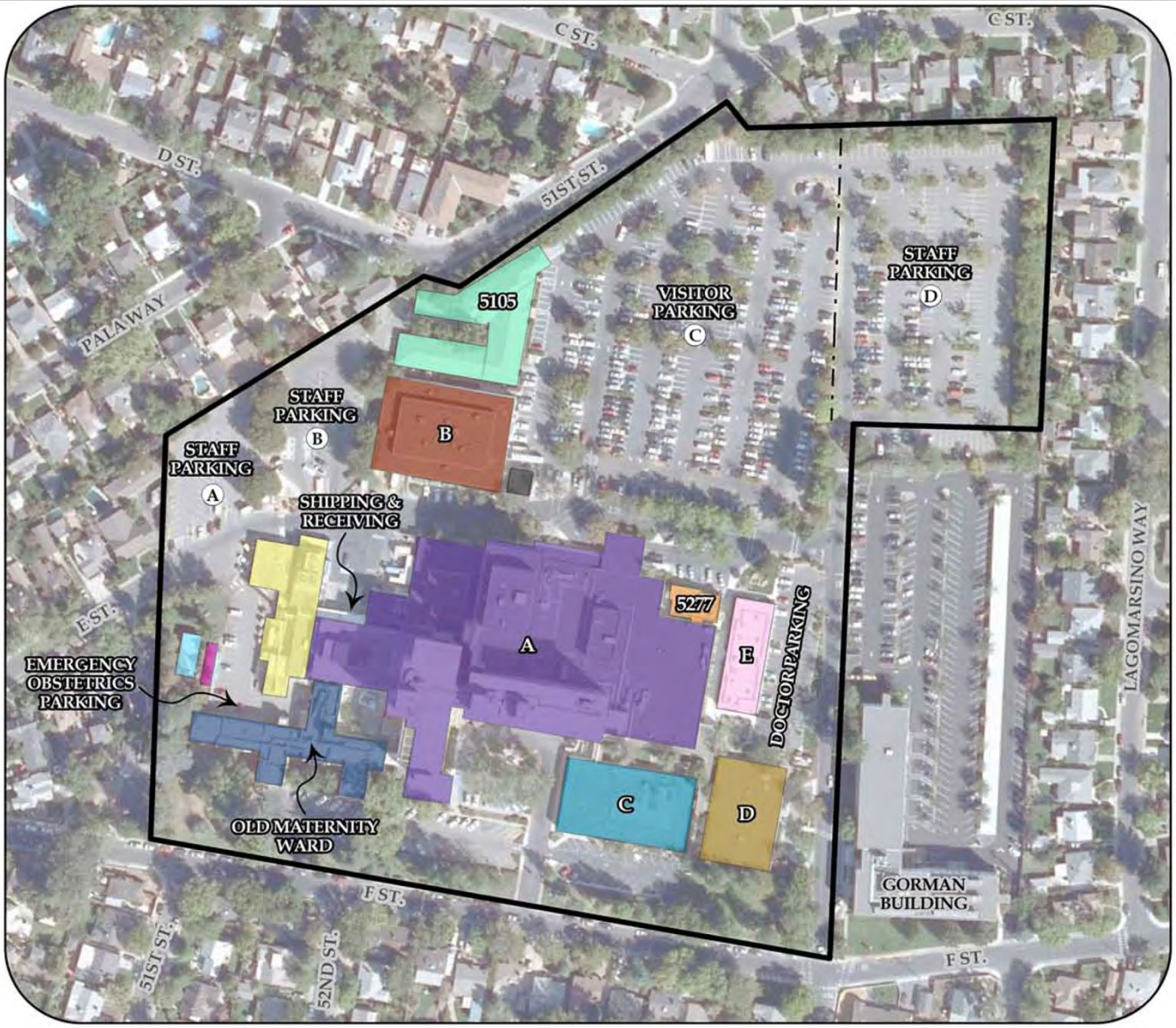


Exhibit 3-1 **Project Location**



Source: Adapted by Ascent Environmental in 2013

Exhibit 3-2 **Project Vicinity**



LEGEND:

Building A: Main Hospital
- Registration
- Maternity Admissions
- Stroke and Heart Center
- Surgery Center

Building B: Clinical Equipment Management Program
- Biomedical Engineering Center
- Medical Physician Center
- Sutter Health Maintenance Management Program
- Clinical Asset Management Program

Building C:
- Childrens Outpatient
- Cystic Fybrosis Center
- Childbirth Education
- Lactation Station
- Diabetes Care Center

Building D:
- Childrens Specialist Surgery
- Pediatric Hematology
- Pediatric Oncology
- Pediatric Surgery
- Pediatric Heart Surgery

Building E:
Adult Diabetes
Pediatric Audiology
Rehab Services Center

5105: The Sharing Place
Lodging for out of town pediatric and adult cancer patients and their families, in addition to other families receiving medical care at any Sacramento Hospital.

Old Maternity Ward

5277: MRI Center

Speciality Services Trailer

Conference Room Trailer

Generator Building

Plant Operations and Maintenance
- Paint Shop
- Boilers
- Chillers

Orthophoto Provided by Digital Globe (Sept. 2008)

0 100 200 Feet

DISCLAIMER:

The data was mapped for assessment purposes only. No liability is assumed for the accuracy of the data shown.

STONEBRIDGE PROPERTIES, LLC

Source: Received from Stonebridge Properties in 2013

X12010083 01 013

Exhibit 3-3 **Sutter Memorial Hospital Site**

EXISTING LANDSCAPING

The project site is completely developed and situated within an urban setting. The western and southern portions of the site is comprised of existing Sutter Memorial Hospital buildings, and the northern and eastern portions of the site are predominately parking lots. A variety of native and non-native trees such as Valley oak (*Quercus lobata*), interior live oak (*Q. wislizenii*), Australian pine (*Casuarina equisetifolia*), Italian cypress (*Cupressus sempervirens*), and coast redwood (*Sequoia sempervirens*) are located along sidewalks, between buildings, and bordering parking lanes. The hardscape is broken up by scattered small manicured lawns and landscaping adjacent to buildings, sidewalks/pathways, and parking lots.

Table 3-1 Existing Sutter Memorial Hospital Buildings and Departments

Building Designation	Description	Gross square feet
Building A: Main Hospital	Registration Maternity Admissions Stroke and Heart Center Surgery Center Emergency Room	379,841
Building B: Clinical Equipment Management Program	Biomedical Engineering Center Medical Physician Center Sutter Health Maintenance Management Program Clinical Asset Management Program	20,480
Building C	Children's Outpatient Cystic Fibrosis Center Childbirth Education Lactation Station Diabetes Care Center	16,583
Building D	Children's Specialist Surgery Pediatric Hematology Pediatric Oncology Pediatric Surgery Pediatric Heart Surgery	14,280
Building E	Adult Diabetes Pediatric Audiology Rehab Services Center	7,000
Plant Operations and Maintenance	Paint Shop Boilers Chillers	N/A
Building 5105: The Sharing Place	Lodging for out of town pediatric and adult cancer patients and their families in addition to other families receiving medical care at any Sacramento Hospital.	12,875
Old Maternity Ward	N/A	23,208
5277: MRI Center	MRI Services	2,185
Specialty Services Trailer	N/A	N/A
Conference Room trailer	Conference room	N/A
Generator Building	Generator	N/A

Source: Stonebridge 2013

EXISTING LAND USE DESIGNATION AND ZONING

The City of Sacramento 2030 General Plan land use designation for the project site is Public/Quasi-Public (see Exhibit 3-4, Proposed General Plan Amendment). The Public/Quasi-Public designation describes areas with unique uses and typically unique urban forms. These areas host community services and/or educational, cultural, administrative, and recreational facilities often located within a well-landscaped setting. Most of these areas provide a public function and as a result, existing buildings often include a significant amount of surface parking lots and structured parking to accommodate users of the facilities. This designation provides for the following uses: government buildings, public and private schools, schools/colleges, hospitals, cemeteries, airports, transportation and utility facilities, and other compatible public/quasi-public uses.

The existing City of Sacramento zoning is Hospital (H) (see Exhibit 3-5, Proposed Rezone). This zone is designed primarily for medically related services such as hospitals and convalescent homes, and for group care facilities for the physically and mentally handicapped. In addition, medical offices, laboratories, and pharmacies are also permitted.

ADJACENT USES

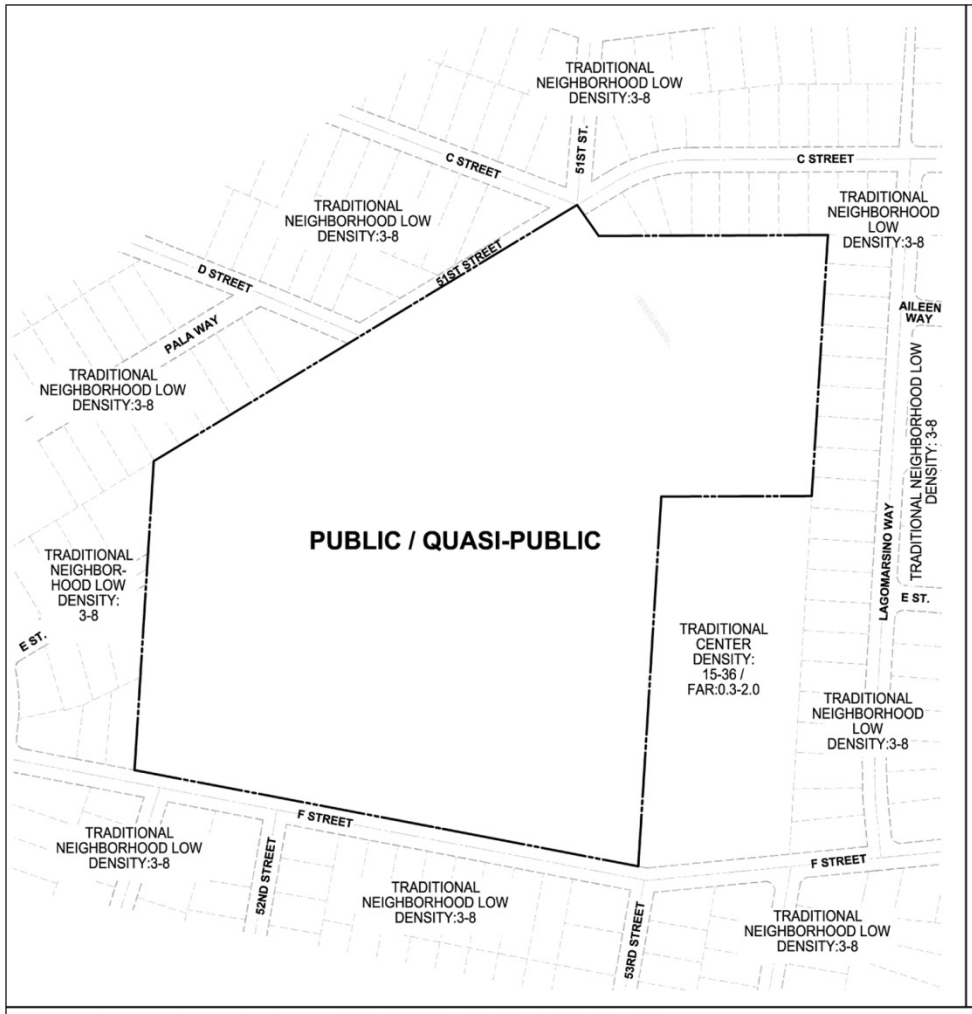
East Sacramento is primarily characterized as a residential area in the City of Sacramento. The immediate vicinity of the project site includes a mix of uses, such as residential, educational, religious, retail, medical office, and health-care related properties. Buildings on most of the surrounding properties are one- to two-story homes. An existing medical office building and associated parking is located to the east, adjacent to the proposed project site. The area around and adjacent to the project site also includes mature trees and landscaping.

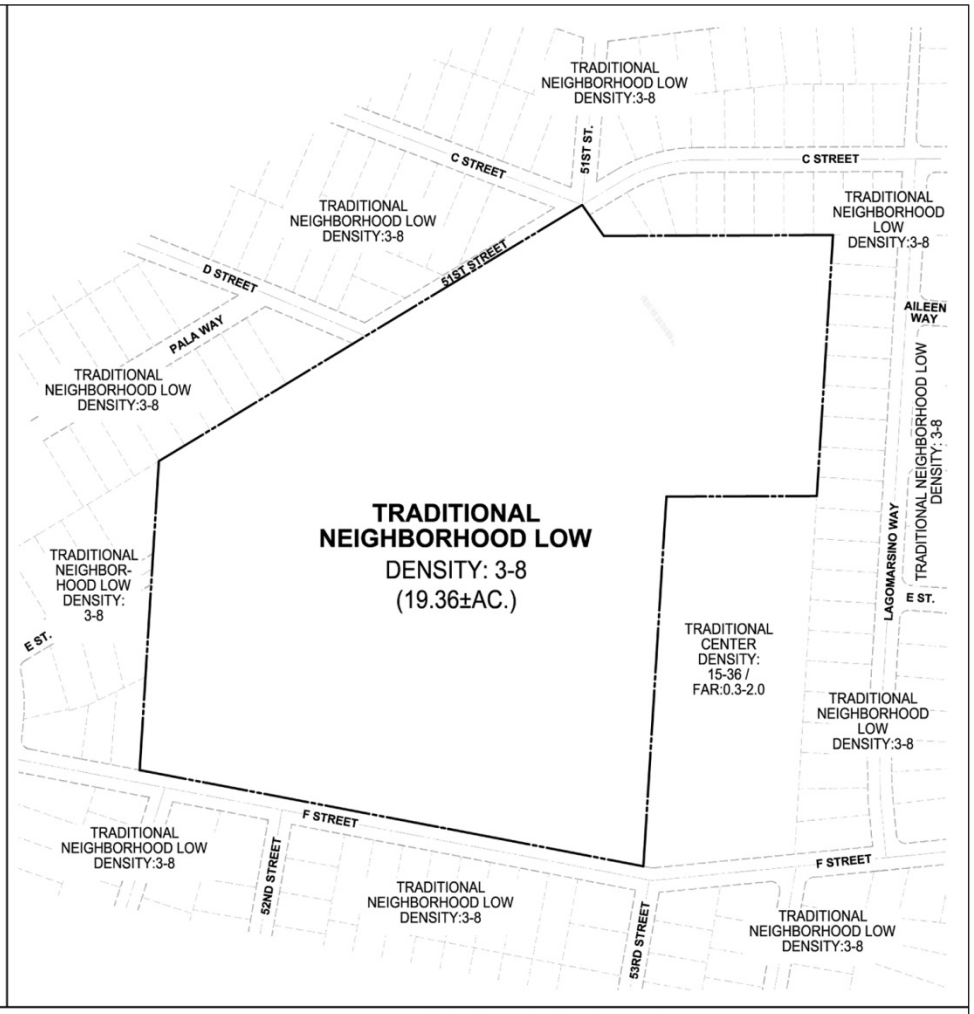
3.2.2 PROJECT BACKGROUND

PROJECT SITE HISTORY

On June 24, 1936, the president of the Sutter Hospital board of trustees announced the purchase of land at 52nd and F Streets for a maternity hospital. This neighborhood was a mix of vacant farmland and small residences at the time of the hospital's construction in 1936, but developed fairly quickly after the construction of the hospital. The construction of the Maternity Hospital was completed in 1937, and in 1939 the west wing was added to the building, adding twenty-two beds to the hospital. The hospital was expanded in the early 1950s, with a large expansion by 1956. These expansions included renaming the hospital to Sutter Memorial Hospital, and the addition of a variety of new medical departments, such as psychiatric and diagnostic units, in addition to the original maternity focus.

In 1967-69, a seven story East Wing was added. In 1975, a Pacemaker Clinic and the Radiation Oncology Center were established at the hospital. In 1985, a north wing with approximately 100,000 feet was added at the rear of the hospital. By 1987, the 50-year old hospital had grown into a 378 bed facility with specialized centers in cardiology, perinatology, oncology, and pediatrics.





EXISTING GENERAL PLAN

12010083 01 002

SUMMARY TABLE

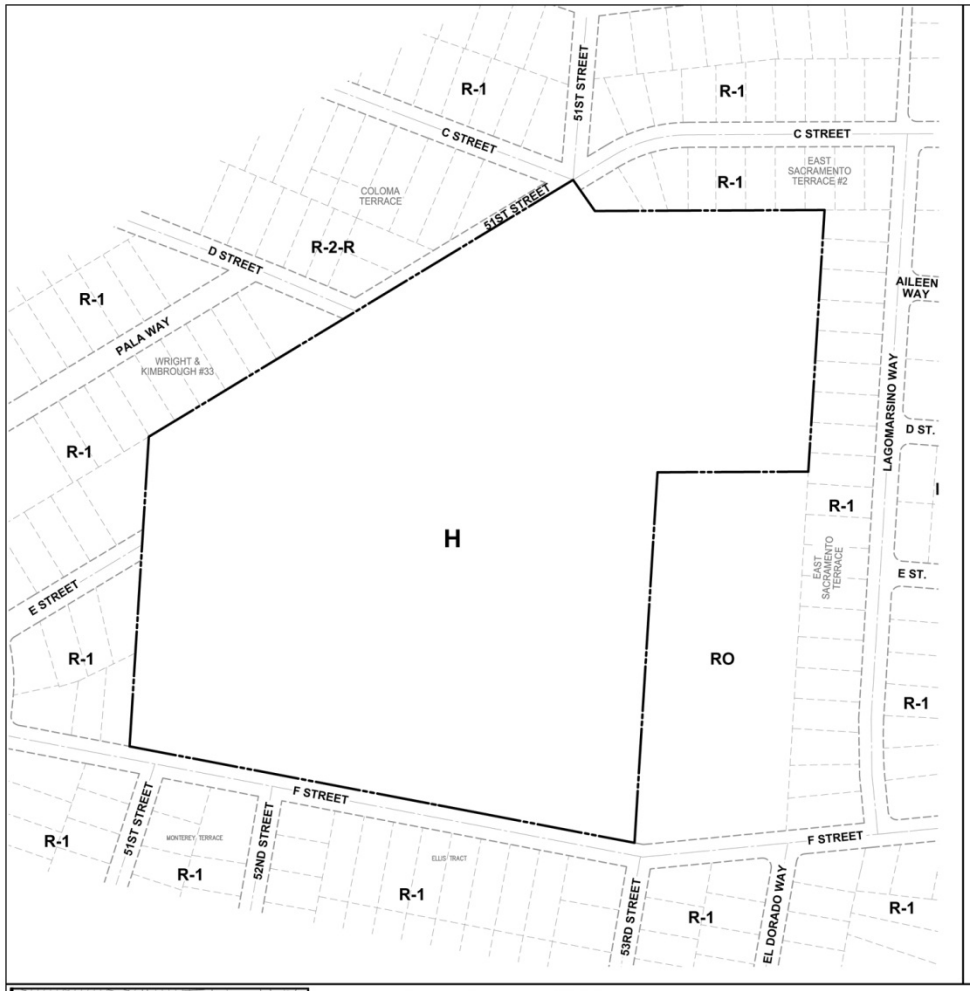
DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
PUBLIC/ QUASI-PUBLIC	HOSPITAL	19.36 AC.	-	- 19.36 AC.
TRADITIONAL NEIGHBORHOOD LOW DENSITY (3-8)	LOW-DENSITY RESIDENTIAL	-	19.36 AC.	+ 19.36 AC.
		19.36 AC.	19.36 AC.	

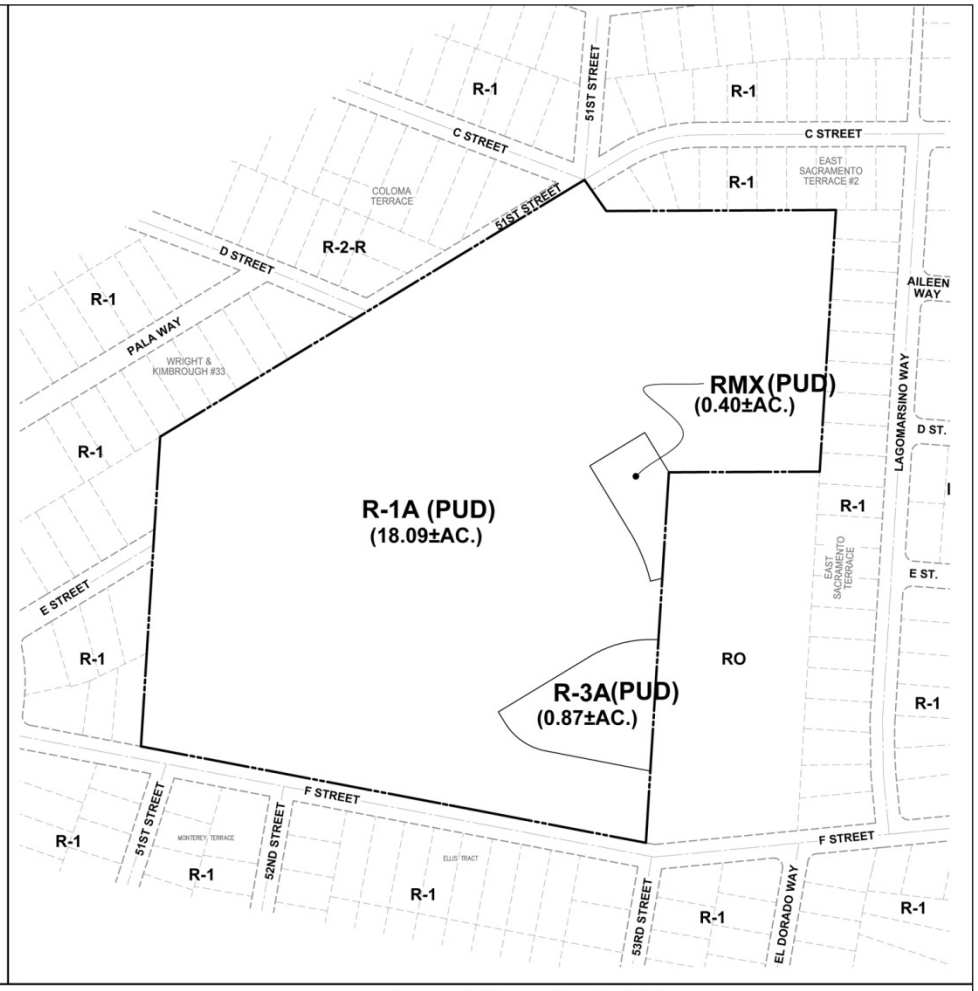
PROPOSED GENERAL PLAN

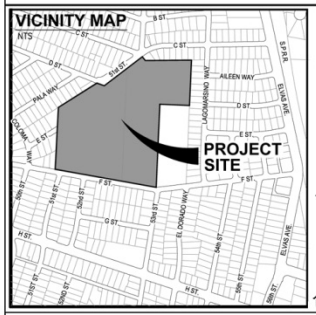
100 50 0 100 200

Source: Received from StoneBridge Properties and Cunningham Engineering in 2013; Adapted by Ascent Environmental in 2013

Exhibit 3-4 **Proposed General Plan Amendment**







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EXISTING ZONING

PROPOSED REZONING

SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
H	HOSPITAL	19.36 AC.	-	- 19.36 AC.
R-1A (PUD)	SINGLE FAMILY RESIDENTIAL	-	18.09 AC.	+ 18.09 AC.
R-3A (PUD)	MULTI-FAMILY RESIDENTIAL	-	0.87 AC.	+0.87 AC.
RMX (PUD)	RESIDENTIAL MIXED USE	-	0.40 AC.	+0.40 AC.
		19.36 AC.	19.36 AC.	

100 50 0 100 200

Source: Received from StoneBridge Properties and Cunningham Engineering in 2013; Adapted by Ascent Environmental in 2013

Exhibit 3-5 **Proposed Rezone**

The project owner is Sutter Community Hospitals of Sacramento (SCHS), which also owns the Sutter Medical Center, Sacramento (SMCS). SMCS is a component of the Sutter Health System, a not-for-profit community-based health care system that operates hospitals, specialized facilities, clinics, and related facilities throughout Northern California.

SENATE BILL 1953

California Senate Bill (SB) 1953 became law in 1994 as an amendment to the Alfred E. Alquist Hospital Facilities Seismic Safety Act of 1983. SB 1953 is now chaptered into statute in Sections 130000 through 130070 of the California Health & Safety Code. The goal of the Alquist Act is to ensure all general acute care hospital buildings are not only 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. As a result of SB 1953, hospitals in California evaluated and rated their buildings according to how they would perform in a strong earthquake. The structural performance categories (SPC) rate the buildings actual structure. The non-structural performance categories (NPC) rate a building's capability to ensure position retention of equipment, utilities and major furnishings within the building.

All of the Sutter Memorial Hospital buildings received the lowest possible rating in the nonstructural performance category (NPC-1) and the majority of the buildings received the lowest possible rating in the structural performance category as well (SPC-1). Only the north wing of the Main Hospital and the corridor outside of the east wing received a rating of SPC-3, and only the Central Plant and the radiology portion of the Emergency Room received a rating of SPC-4. The ratings that pertain to Sutter Memorial Hospital are defined as follows:

Structural Performance Categories

SPC-1 These buildings pose a significant risk of collapse and a danger to the public after a strong earthquake. These buildings must be retrofitted, replaced or removed from acute care service by January 1, 2008. A 5-year extension to 2013 may be granted.

SPC-3 These buildings are in compliance with the structural provisions of the Alquist Hospital Facilities Seismic Safety Act. In a strong earthquake, they may experience structural damage that does not significantly jeopardize life, but may not be repairable or functional following strong ground motion. Buildings in this category will have been constructed or reconstructed under a building permit obtained through the Office of Statewide Health Planning and Development (OSHPD). They can be used to 2030 and beyond.

SPC-4 These are buildings in compliance with the structural provisions of the Alquist Hospital Facilities Seismic Safety Act that may experience structural damage which could inhibit the building's availability following a strong earthquake. Buildings in this category will have been constructed or reconstructed under a building permit obtained through OSHPD. They may be used to 2030 and beyond.

Non-Structural Performance Categories

NPC-1 Equipment and systems do not meet any bracing requirements of any other NPC rating.

PROJECT EVOLUTION

In June 2000, SMCS commissioned an internal planning process that resulted in a decision to consolidate services presently provided by Sutter Memorial Hospital in East Sacramento into Sutter General Hospital and to build new hospital facilities to create a "Campus." It was determined that Sutter Memorial Hospital was non-compliant in several key areas with regard to the requirements of SB 1953 and that the facility could not be cost-effectively renovated to meet current standards. Therefore, the decision was made to close Sutter Memorial Hospital and create a medical campus around SMCS-owned land including the existing Sutter General Hospital and Buhler Building (Sutter Cancer Center). The City of Sacramento approved the SMCS Project on December 6, 2005, following its certification of the SMCS Project EIR (July 19, 2005). The EIR was challenged, and, following a Sacramento County Superior Court ruling that directed the City to void its certification of the EIR and approval of the project, a Revised EIR was prepared in September 2006. The City Planning Commission certified the Revised EIR on November 20, 2006, and the City Council approved the project on December 12, 2006.

As part of the previously-analyzed SMCS Project, Sutter Memorial Hospital's services will be consolidated into new, expanded facilities that are currently under construction at 28th and L Streets. The 395,241-square-foot, eight-story Anderson Lucchetti Women's and Children's Center is being built as part of the Sutter General Hospital complex. Existing operations at Sutter Memorial Hospital will be transferred to the new Women's and Children's Center, which is scheduled to open fall 2014. Operations at the Women's and Children's Center were analyzed in the 2005 SMCS EIR and therefore do not need to be addressed in this EIR.

Following the transfer of hospital operations out of Sutter Memorial Hospital, the hospital would be decommissioned, and the existing buildings on the project site would be demolished. On behalf of the property owner (SCHS), the project applicant (Stonebridge Properties) is proposing the Sutter Park Neighborhood (PUD) project. The hospital demolition and the proposed Sutter Park Neighborhood project are the subject of this EIR.

Prior to the submittal of the project application in July of 2012, the applicant engaged in a lengthy public outreach process beginning in the fall of 2011. The purpose of the applicant's public outreach effort was to develop a feasible proposal for redevelopment of the project site that was responsive to public concerns and environmental constraints. This outreach consisted of numerous neighborhood meetings, including meetings with individual property owners and the East Sacramento Improvement Association, East Sacramento Preservation, the McKinley East Sacramento Neighborhood Association, and the Riverpark Neighborhood Association. In addition, the applicant met with the East Sacramento Chamber of Commerce, Sacramento Rotary, two realtor offices, and the Urban Land Institute Young Leaders Forum. This public outreach process was also facilitated by two articles in *The Sacramento Bee* and articles in *Inside East Sacramento* and *The Sacramento Business Journal*.

During this process, the applicant discussed with the community a number of land use concepts ranging from predominantly retail or office uses to various residential concepts, including single-family detached residential, a mixture of detached and attached single-family residential, and mixed residential with a dedicated senior housing facility. Based on feedback obtained during this process, the applicant eliminated predominantly retail or office uses, as well as a dedicated senior housing facility from further consideration as a result of the lack of community support and consensus for such land use types. Also, among the various predominantly residential concepts, public consensus favored a mixture of attached and detached single-family residential with a small residential mixed-use component. The public process led to the applicant's development and submittal of the project application under consideration in this EIR.

3.2.3 PROJECT OBJECTIVES

The project objectives are as follows:

1. To decommission the existing hospital and related-care facilities and successfully prepare the site for subsequent redevelopment.

2. To utilize this infill location and its proximity to the urban core for the construction of a residential development, thereby improving the jobs/housing balance and reducing vehicle miles travelled within the City of Sacramento.

3. To contribute to the overall character and livability of the surrounding neighborhood by facilitating the residential reuse of the property in a manner that preserves, protects, and enhances the existing traditional neighborhood.

4. To create a pedestrian-friendly, walkable neighborhood that includes varied streetscapes, well designed and safe alleys, abundant tree canopy, and sensitive transitions from the existing neighborhood.

5. To connect the existing grid network by extending existing street patterns and selectively introducing new street connections that improve vehicular and pedestrian connectivity.

6. To maintain an overall residential density that respects and responds to the surrounding neighborhood and is appropriate for the site's physical and environmental conditions.

7. To provide unique, varied, and high-quality housing opportunities consistent with and complementary to the overall character of the adjacent neighborhood in its design.

8. To creatively address generational needs by including a range of unit sizes and incorporating universal design features, features designed to be usable to the greatest extent possible by everyone, regardless of their age or ability, where appropriate.

9. To provide a diverse mixture of open space areas and parks that are easily accessible to pedestrians and that complement existing neighborhood parks and provide multi-generational recreational opportunities.

3.2.4 PROJECT ELEMENTS

DECOMMISSIONING AND DEMOLITION

As discussed above, after the existing operations at Sutter Memorial Hospital are transferred to the new Women's and Children's Center, Sutter Memorial Hospital would be decommissioned and the existing buildings on the project site would be demolished. The operations at the Women's and Children's Center were analyzed in the 2005 SMCS EIR. The construction of the Sutter Park Neighborhood (PUD) project is the subject of this EIR.

DECOMMISSIONING

The decommissioning process would include three steps: 1) Implementation of the transition plan; 2) OSHPD status change; and 3) Abatement and demolition with permits issued by the appropriate jurisdictions.

Implementation of the transition plan would include formulating an asset management system, controlling access to the building, removing large mechanical equipment and large medical equipment, and hazardous materials removal. Hazardous materials stored and used at the Sutter Memorial Hospital (e.g., drums of flammable liquid, biohazardous wastes, radioactive medical wastes) would be removed by Sutter Hospital prior to initiation of pre-demolition and would follow the regulations that currently regulate their disposal, including the Resource Conservation and Recovery Act, the California Medical Waste Management Act, the Nuclear Waste Policy Act, and Sutter's Hazardous Materials Waste Management Plan.

The removal of acute care services and beds from a hospital can result in a change of the use, change of occupancy, change in function, change in licensure, or a combination thereof for all or a part of the building. In addition, removal of acute care service can also involve a change of the authority having jurisdiction, from OSHPD to the local enforcement agency. In the case of Sutter Memorial Hospital, after implementation of the transition plan, jurisdiction would revert back to the City of Sacramento. The final step in the decommissioning process is abatement and demolition, with permits issued by the appropriate jurisdiction.

DEMOLITION

A conceptual demolition plan has been developed that provides guidelines on the demolition process. The timing for the conceptual demolition is shown in Table 3-2. It is expected that demolition would last for up to 180 days. While this plan may not be implemented exactly as proposed, it is likely that the following 10 steps would occur:

1. Pre-Demolition
2. Soft Demolition/Recycling
3. Above Grade Building Demolition
4. Slab on Grade Demolition
5. Below Grade Footing/Foundation Demolition
6. Asphalt Paving/Site Concrete Removal
7. Underground Utility Removals/Underground
8. Tree Removal/Grubbing
9. Onsite Concrete Crushing/Recycling (optional)
10. Demobilization

Pre-Demolition. The following pre-demolition activities have been identified: Submittals/Permits, Storm Water Pollution Prevention (SWPP), and Utility disconnects. Initial permits would include the demolition notification to the Sacramento Metropolitan Air Quality Management District. The demolition contractor would obtain OSHA permits as required/needed. The demolition contractor would also provide the necessary documents to further expand on safety and process before the project begins with a full safety assessment being completed to include pre-demolition plans that include: Project Hazard analysis, Project Clinic Location, Dust Control Plan, Fall Protection Plan, Recycling Plan, Noise Control Plan, Respiratory Plan, Injury and Illness Prevention Plan (IIPP), Utilities Policy, Hazard Communication, and Compliance Agreement.

Soft Demolition/Recycling. The removal of interior finishes would be contained inside the buildings. Recycling of interior materials would occur when feasible. Site fencing would be placed at the exteriors of the property with a primary designated and controlled entrance to minimize construction traffic effects on surrounding streets. SWPP measures would be set in place during this first phase and with the onsite asphalt and concrete still intact. Minimal street sweeping would be necessary during this phase. Site fencing would be placed at the exteriors of the property with a primary designated and controlled entrance to minimize construction traffic effects on surrounding streets.

Above Grade Building Demolition. Above-grade demolition would include mass wrecking and materials recycling. Dust would be controlled directly with hoses, misters, and off-road water equipment. Street sweeping and truck tire cleaning would be utilized to a larger extent during these phases. A primary access point for trucks would be used, and the SWPP measures that keep silt and dirt from entering the storm water system would be checked and maintained on a daily basis. As demolition debris is generated either through the soft demolition process or through mass wrecking, high side trucks would come as needed onto the site, be loaded, and then off-haul the material. Continual off-haul would minimize debris stockpiles. All trucks would use designated truck routes to and from their respected disposal locations. A potential haul route has been identified, with a primary route that would divert trucks directly to commercial areas by accessing Elvas Avenue from F Street. Elvas Avenue could be taken directly to 65th Street to access the US 50 or could be driven to Folsom south to access numerous South Sacramento recycling facilities.

The one and two story buildings would be demolished, sorted, separated, and completed using heavy equipment. Demolition of taller buildings that are four stories and greater would be completed using two different methods, floor by floor demolition or mass wreck. In a “floor by floor” demolition, mini-excavators with hydraulic hammers would be placed on the top deck of the uppermost structure. The exterior walls and decks would then be broken in place working material onto the existing deck. This

process continues working from floor to floor with use of mini-excavators attached with breakers in a “top-down” method. In a “mass wreck” demolition, a four-story story or taller building is prepared for demolition with interior small equipment (bobcats/skidsteers) and labor removing the interior finishes. Once the building is only concrete and steel, a specialty long-reach excavator would be used to process the material from the ground level working with spotters utilizing dust control measures to maximize equipment movement. The building would be processed in place using hydraulic pulverizors and shears. Debris would be mechanically pulled off of the exterior using the heavy demolition equipment. Tarps would be placed near the work area to control potential debris at any street elevation close to the building structure, if required. Machines would move the materials, once on the ground, from the building exterior into stockpiles. This process would continue at all floor levels, starting from the top of the structure and working toward ground level. The work would continue with the same heavy demolition equipment demolishing the slabs and below grade footings.

Slab on Grade Demolition. The existing buildings slab on-grade foundations would be fractured using specialty demolition equipment called an impactor. The impactor is a small tractor pulling a three-sided steel oblong “wheel” behind it fracturing the slab on each rotation. The concrete material would then be loaded with heavy equipment into trucks for transport to recycling areas for processing and sorting.

Below Grade Footing/Foundation Demolition. Below-grade concrete footings and foundations would be removed using an excavator with specialized attachments such as buckets, hydraulic breakers and pulverizors. The soil around the footings would be excavated for extraction of the pad and perimeter footings. The concrete footings would then be processed to the appropriate size and loaded into trucks for recycling. Steel would be removed from the footings and recycled.

Asphalt Paving/Site Concrete Removal. Asphalt paving is removed by either “winrowing” or grinding and stockpiling. With the first method, a loader places the bucket of the machine under the existing asphalt and pushes it into piles. This asphalt is then loaded into trucks for recycling. If the material is going to be re-used onsite, a second method employing a pulverizor minimizes the amount of time it takes to process the materials. This piece of equipment grinds the asphalt material leaving an 8-inch to 1-foot section of grinded asphalt or blended combination of asphalt with aggregate base.

Underground Utility Removals/Underground. Designated underground utilities would be removed back to the property line and capped for re-use during new construction. Excavators would be used to remove the piping while the site asphalt is ground and stockpiled along with aggregate base with use of track and rubber tire loaders.

Tree Removal/Grubbing. A specialized tree contractor would remove the trees, leaving the stumps in place. Any necessary permits would be obtained prior to removal of any trees. The stumps would be ground down two feet below existing grade with a stump grinder. The tree contractor would then process the materials with chippers to create mulch material for re-use. Grubbing would take place with heavy equipment removing any shrubs, bushes, and sod.

Onsite Concrete Crushing/Recycling (optional). Depending on feasibility, a mobile crushing unit, conveyors, and loading equipment may be placed onsite near stockpiled concrete and asphalt. The material would be crushed into the appropriate mix for re-use onsite.

Demobilization. A final punchlist would be completed before demobilization is finalized. After project completion, all equipment, office trailers, personnel, and tools and supplies would be removed from the site. The site would be left at a rough grade matching adjacent grades.

Timing

The overall duration of the demolition of the buildings and associated structures on the project site would be approximately 180 calendar days (see Table 3-2). This timeline does not take into consideration any hazardous material remediation. Should any hazardous material be identified during Phase 2 investigations prior to demolition, this schedule would be modified accordingly.

Table 3-2 Demolition Phases and Timing

Demolition Phase	Estimated Duration
Pre-Demolition	15 days
Soft Demolition/Recycling	35 days
Above Grade Building Demolition (concurrent with soft demolition)	60 days
Slab on Grade Demolition	15 days
Below Grade Footing/Foundation Demolition	15 days
Asphalt Paving/Site Concrete Removal (concurrent with below-grade and foundation demolition)	10 days
Underground Utility Removals/Underground	15 days
Tree Removal/Grubbing (concurrent with utility removal)	15 days
Onsite Concrete Crushing/Recycling (concurrent with demolition) (optional)	50 days
Demobilization	10 days
Total Estimated Duration	**180 days***

Note: *The total estimated duration is less than the sum of the individual demolition phases because some of the phases would overlap.
Source: Cleveland Wrecking Company, Conceptual Demolition Work Plan for Sutter Memorial Hospital, Sacramento. Prepared for Stonebridge. March 2013.

The demolition contractor would operate onsite with general normal working hours between 8:00 AM – 4:30 PM Monday through Friday. The hours of operation may vary depending on type of work, but would be consistent with all applicable City of Sacramento codes, including Title 8 Health and Safety City Code - Noise Control. While there are no specific regulations regarding construction-related noise, generally, the noise restrictions in effect between the hours of 10:00PM and 7:00AM of the following day would prohibit most construction work. Please see “Noise Control” below for more details.

STAGING

Construction equipment and materials would be staged onsite during project construction. The site would be secured with fencing. According to the conceptual demolition plan, the primary access point to haul materials would be from F Street, near the two-story medical office building located to the east of the site that is to remain, giving access to both the demolition area and to the operating building at the

southeast corner of the site. Additional secondary construction routes may leverage the existing entrances to the hospital site including the main hospital entrance off F Street and the entrance on E Street. The processing of the materials would take place at the former building footprints during demolition. The loading areas would be located near the perimeter of the building footprint to reduce the amount of time materials are moved. The concrete and asphalt would then be hauled to a recycler off site, or to a location onsite for onsite crushing. If the materials are crushed into aggregate base onsite, the stockpile would be centrally located. The intent of the construction staging plan in the conceptual demolition plan is to keep the majority of the potential onsite concrete and asphalt crushing towards the interior of the site to use both distance and blockage from existing buildings to reduce construction noise levels at offsite locations. The processing of the materials would generally take place at the former building footprints during demolition.

Site Materials and Recycling

An initial site assessment has been completed on the amount of building materials and site materials generated on the current Sutter Memorial site. Building and site observations and historical data from previous hospital demolition projects have been used to compile a breakdown of the materials that would be recycled and processed during demolition. Building material to be recycled and processed is estimated as: construction and demolition debris, 6,800 tons; concrete, 89,000 tons; and metal, 5,200 tons. Site material to be recycled and processed is estimated as: green waste (Trees / Sod / Bushes), 3,700 tons; asphalt, base materials and site concrete, 14,000 tons.

The demolition plan contemplates both off- and onsite recycling. Should onsite crushing and recycling of concrete and asphalt occur, there would be reduced trucking trips during the demolition process, but possibly a slight increase in demolition related noise (evaluated in this EIR). Should off-site crushing and recycling be pursued, there would be increased trucking trips and possibly a reduction in demolition related noise. In addition, there may be additional truck trips required to bring fill material back to balance the property. This EIR includes an analysis of both options. The noise section (see Section 5.7) includes an analysis of potential impacts from onsite crushing equipment. The transportation and traffic section (see Section 5.8) analyzes the upper limit of estimated truck trips per day from the conceptual demolition plan for the most conservative traffic impact estimates.

For re-use purposes, aggregate base material can be used for backfill of existing basements, and can be placed under new roads, sidewalks, curbs, gutters, and alleys. Concrete and asphalt are processed into roughly 2x2-foot sized sections and stockpiled for loading and/or for relocation to a crushing and processing area located onsite. Source separation further allows recognition and segregation of any organic or cellulose from the concrete so that it would meet requirements for fill material. Any wood/cellulose debris are ground up and sent to the landfill. Metal recyclable materials would include ferrous and non-ferrous metals. Carbon steel is also often generated during the demolition operations. The majority of carbon steel generated during mechanical demolition would usually not require additional preparation for transportation off site.

NOISE CONTROL

During demolition, much of the work to prepare the buildings for demolition would occur inside the buildings with smaller pieces of equipment and labor. Access would be gained through existing building fronts and loading docks to mobilize labor and equipment into the buildings. The interiors would be demolished and stockpiled for recycling while the exterior of the building remains largely intact. Once the heavy equipment begins processing the building shells, noise could be minimized by working at the interior property sections using the existing larger buildings as noise barriers.

To minimize noise sources to the extent possible, the following noise controls would be considered:

- addition or replacement of intake and exhaust mufflers on motorized equipment;
- addition of mufflers to air exhaust on pneumatic equipment;
- following equipment maintenance procedures to lubricate dry bearings;
- isolation of loud equipment such as compressors and generators from employee work areas, site employee work areas and adjacent neighborhoods;
- replacement of older noisy equipment with newer and quieter models;
- shielding of equipment, machinery, compressors, generators, etc.;
- noise generating activities are generally between 8:00 a.m. and 4:30 p.m. Monday through Friday;
- utilize “quiet” air compressors and other stationary noise sources where reasonable technology exists;
- all internal combustion engine equipment is equipped with intake and exhaust mufflers that are in good condition and are appropriate for the equipment; and
- when feasible and permitted by construction safety orders, reduce the use of automatic warning devices when backing up. This may be accomplished by establishing onsite haul routes that loop, employing spotters that can remain in clear view of the operator, and reducing the usage of equipment that uses automatic warning devices (e.g. reducing the use of a loader by grinding asphalt in place).

Under 8.68.080 of the City of Sacramento’s Title 8 Health and Safety City Code - Noise Control:

> Noise sources due to the erection (including excavation), demolition, alteration or repair of any building or structure between the hours of seven a.m. and six p.m., on Monday, Tuesday, Wednesday, Thursday, Friday and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however, that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspection may permit work to be done during the hours not exempt by this subsection in the case of urgent necessity and in the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.

CONSTRUCTION-RELATED AIR QUALITY

The demolition contractor would use a metered City water source for application of dust control measures while removing building structures. Water would be used during all operations to provide for dust control at the working areas. At the same time, water would be dispersed in such a manner as to control dust but not to generate excessive pooling, slipping hazards, or erosion. The control and evaluation of potential dust hazards would be accomplished through observance by experienced demolition personnel. Dust control measures for project demolition and construction would include:

- Water or stabilize all exposed surfaces two times daily or as needed. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered or maintain at least two feet of free board.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day or as needed Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour.
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible where feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.
- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. Prior to the beginning of the job, the equipment must be checked by a certified mechanic and determined to be running in proper condition.

Per the City of Sacramento Title 15 Building and Construction – Chapter 15.40 Construction site regulations – article II Proper maintenance of job site:

> "Any person who has been issued a permit for any work covered by this code shall take reasonable precautions to prevent and control the movement of dust created by work activities to adjoining public or private property. Such dust is immediately settled by wetting the same. Work activities are stopped during periods of high winds that may carry dust from the job site before it can be settled by wetting.
>
> The permittee is responsible for maintaining clean public streets, sidewalks and alleys in the immediate vicinity of the job site during and after the period of work activity. The permittee shall remove all mud and dust from any public property which was deposited there by any activity related to the work. In order to prevent mud and other material from entering any public sewer, the permittee shall properly pond any affected gutter to permit such material to settle and shall remove such material from public property. This procedure is in accordance with the

> requirements and policies of the city water and sewer division. The permittee shall obtain any necessary permits for water from the manager of said division. See Section 15.44.170 of this title for additional requirements."

Per the City of Sacramento Title 15 Building and Construction – Chapter 15.44 Wrecking and Demolition of Buildings:

> All dust resulting from wrecking or demolition operations are immediately settled by wetting the same with water of sufficient quantity to prevent the dust from leaving the site of the demolition or wrecking project. Demolition is stopped during periods of high winds that carry the dust from the site before it can be settled by wetting. The permittee is responsible for maintaining clean public streets during such operation. The permittee must obtain the necessary permits for water from the manager of the division of water and sewers and pay for such permits and for water used.
>
> The permittee shall wash off public property to remove all silt and dust. In order to prevent such material from entering any public sewer, the permittee shall properly pond the gutter in order to permit such material to settle, and it is then cleaned up and hauled away. This procedure is followed in accordance with the requirements and policies of the water and sewers division. This section shall also apply to Section 15.40.050 of this title.

STORM WATER PREVENTION PLAN CONTROL

The demolition contractor would inspect and maintain all soil and sediment control structures during the duration of the project, in accordance with the *California Construction Site Best Management Practices (BMPs) Manual*.

Two of the potential SWPP measures to contain silt at the site would be catch basin and storm water inlet protection and stabilized construction entrances. Other methods could also include sand bags to contain run-off water and fiber rolls at the exterior fencing.

The demolition contractor would identify the location of all surrounding inlets within the perimeter of the site and surrounding locations. Catch basins and storm water inlets that may be affected by the construction activities would have inlet protection installed, using ultra drain guards, catch basin inserts, and gravel fill bags in accordance with the *California Construction Site Best Management Practices (BMPs) Manual*, or an equivalent method approved by the project engineer.

Stabilized construction entrances would be installed to prevent tracking of silt from work areas. Dirt or mud would not be tracked off site onto a public street by the demolition contractor's vehicles or equipment. Where traffic is entering and exiting the construction site, a stabilized construction entrance would be used. All employees, subcontractors, and suppliers would use the designated construction entrance.

LAND USE SUMMARY

The proposed project would require a General Plan amendment to change the land use designation from Public/Quasi-Public to Traditional Neighborhood Low (see Exhibit 3-4, General Plan Amendment).

This designation provides for moderate-intensity housing and neighborhood-support uses including: single-family detached dwellings, single-family attached dwellings (e.g., duplexes, triplexes, townhomes), accessory second units, limited neighborhood-serving commercial on lots two acres or less, compatible public, quasi-public, and special uses.

The proposed project would also require a rezone from Hospital to approximately 18 acres R-1A (PUD), 0.4 acres RMX (PUD), and 0.87 acres R-3A (PUD) (see Exhibit 3-5, Rezone). Zone R-1A Single Family Alternative Zone: This is a low to medium density residential zone intended to permit the establishment of single family, individually owned, attached or detached residences where lot sizes, height, area and/or setback requirements vary from Standard Single Family. This zone is intended to accommodate alternative single-family designs, which are determined to be compatible with Standard Single Family areas. Maximum density in this zone is 15 dwelling units per net acre. Maximum height is 35 feet; maximum lot coverage is 40 percent. Zone RMX Residential Mixed Use Zone: This is a mixed-use zone. The zone permits multiple family residential, office and limited commercial uses in a mixture established for the area through a special planning district or adopted location standards. Minimum land area per unit is 1,200 square feet, 36 units per acre. Maximum height is 35 feet. Zone R-3A Multi-Family Zone: This is a multi-family residential zone located in the Central city and certain areas adjacent thereto. It is designed to provide development regulations that are consistent with goals for various residential areas in the Central City. Minimum land area per unit is 1,200 square feet, for a maximum density of 36 units an acre. Maximum height is 35 feet; maximum lot coverage is 50 percent.

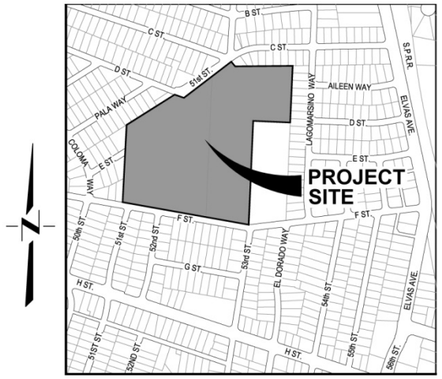
The proposed project includes the development of approximately 19 acres of mixed-use residential development. The project would include approximately 5,000 square feet of commercial retail, up to 125 residential units, and four parks totaling 1.24 acres. The project would include the necessary roadway and utilities infrastructure, which would tie into existing off-site infrastructure (see Exhibit 3-6, Tentative Subdivision).

A summary of land uses for the proposed project is included in Table 3–3 (see Exhibit 3-7, Conceptual Site Plan). Proposed project elements are described below.

Table 3-3 Project Elements Summary

Proposed Project Element	Acres	Units	Square Feet
Traditional Park Neighborhood Homes	7.79	52	
Traditional Park Neighborhood Alley Homes	1.90	17	
Garden Homes	1.31	20	
Residential Mixed Use	0.23	-	5,000
Cottage Homes	1.32	11	
Row Homes	0.56	3-17	
Park/Landscape	1.24	-	

Source: Stonebridge 2013



VICINITY MAP

NTS

MAJOR SUBDIVISION MODIFICATIONS

NO.	REASON
1	INTERSECTION SEPARATION <120'
2	TANGENT LENGTH
3	NON-STANDARD CUL-DE-SAC
4	VALLEY GUTTERS
5	STREET SECTION
6	PRIVATE ALLEY DRIVEWAY
◯	DENOTES PROPOSED SUBDIVISION MODIFICATION

NOTES:

1. THIS MAP WAS PREPARED UNDER THE DIRECTION OF CHARLES W. CUNNINGHAM, RCE 30339.
2. ALL INFORMATION ON THIS MAP IS DEEMED TO BE OF A PRELIMINARY NATURE, AND IS NOT TO BE RELIED ON FOR SURVEY OR PROPERTY LINE INFORMATION.
3. THE EXISTING BOUNDARY AND TOPOGRAPHY INFORMATION IS BASED ON A SURVEY PERFORMED BY MORROW SURVEYING, INC., DATED JULY, 2011.
4. OWNER RESERVES THE RIGHT TO FILE MULTIPLE FINAL MAPS PURSUANT TO SECTION 66456.1 OF THE SUBDIVISION MAP ACT.
5. ALL EXISTING STRUCTURES WITHIN THE PROPERTY BOUNDARY ARE TO BE REMOVED.
6. PUBLIC UTILITY EASEMENTS WILL BE ESTABLISHED ON THE FINAL MAP BASED ON SPECIFIC DESIGN OF THE DRY UTILITY SYSTEM AND ARE NOT ENVISIONED TO BE 12.5' WIDE ADJACENT TO PUBLIC ROAD RIGHT-OF-WAYS IN ALL AREAS WITHIN THIS SUBDIVISION.

X12010083 01 005

Source: Received from StoneBridge Properties and Cunningham Engineering in 2013; Adapted by Ascent Environmental in 2013

SITE MAP

OWNER :
SUTTER COMMUNITY HOSPITALS OF SACRAMENTO
2880 GATEWAY OAKS DRIVE, SUITE 220
SACRAMENTO, CA. 95833
(916) 566-4817

APPLICANT:
STONEBRIDGE PROPERTIES
3600 AMERICAN RIVER DRIVE, SUITE 160
SACRAMENTO, CA 95864-5950
(916) 484-3200

CIVIL ENGINEER:
CUNNINGHAM ENGINEERING
2120 20TH STREET, SUITE THREE
SACRAMENTO, CALIFORNIA 95818
(916) 455-2026

ASSESSORS PARCEL NO.:
004-0010-006-0000 AND 004-0010-024-0000

ZONING:
EXISTING: H
PROPOSED: R-1A (PUD); R-3A (PUD); RMX (PUD)

GENERAL PLAN LAND USE:
EXISTING: PUBLIC/QUASI-PUBLIC
PROPOSED: TRADITIONAL NEIGHBORHOOD LOW

PROJECT ADDRESS:
5105 AND 5275 F ST, SACRAMENTO, CA

SUBDIVISION AREA:
19.364± ACRES

FLOOD ZONE:
ZONE X, REFER TO MAP NO. 0602660180G DATED AUGUST 16, 2012

BENCHMARK:
HILTI NAIL AT LIGHT BASE AT THE SE CORNER OF F AND 50TH STREET.
EL=27.75', NGVD '29.

SERVICE PROVIDERS:

WATER:	CITY OF SACRAMENTO
SEWER:	CITY OF SACRAMENTO
DRAINAGE:	CITY OF SACRAMENTO
SCHOOL DISTRICT:	SACRAMENTO CITY UNIFIED SD
PARK & RECREATION:	CITY OF SACRAMENTO
FIRE PROTECTION:	CITY OF SACRAMENTO
POLICE PROTECTION:	CITY OF SACRAMENTO
ELECTRIC:	SMUD
GAS:	PG&E

LAND USE SUMMARY

USE	LOT NUMBERS	AREA (NET)	# UNITS	DENSITY (UN/AC)
TRADITIONAL PARK NEIGHBORHOOD HOMES	LOTS 1-24, 28, 43-66, 69, 82, 85	7.79 AC.	52	6.7
TRADITIONAL PARK NEIGHBORHOOD ALLEY HOMES	LOTS 26-27, 29, 40-42, 67-68, 70, 81, 83-84, 86-90	1.90 AC.	17	8.9
GARDEN HOMES	LOTS 30-39, 71-80	1.31 AC.	20	15.3
RESIDENTIAL MIXED USE	LOT 25	0.23 AC.	1-4	-
COTTAGE HOMES	LOTS F1-F12 (LOT F12 TO BE A HOA LOT)	1.32 AC.	11	8.3
ROW HOMES	LOT H	0.56 AC.	3-17	-
PARK/LANDSCAPE LOTS	LOTS A-E, G	1.37 AC.	N/A	N/A
STREETS	N/A	4.42 AC.	N/A	N/A
ALLEYS	LOTS 1A-5A	0.46 AC.	N/A	N/A
TOTALS:		19.36 AC.	104-121	

Exhibit 3-6 **Tentative Subdivision**

12010083 01 001

Source: City of Sacramento 2012; Adapted by Ascent Environmental in 2013

Exhibit 3-7 **Conceptual Site Plan**

The applicant is proposing Design Guidelines for the Sutter Park Neighborhood Planned Unit Development. The *PUD Design Guidelines* include six principles: promote wellness through "wellness inspired design"; create community; reconnect existing areas; promote sustainable practices; include a mixtures or densities; and foster a distinctive blend of architecture. By introducing the appropriate mix of iconic architecture, small neighborhood-serving mixed-use, and a human scale to the massing of buildings, these land uses and design principles would guide the transition of this former urban hospital into a neighborhood that integrates into the existing grid and embodies smart growth principles.

Central Park

The Central Park would be a central feature of the neighborhood and would be approximately 400 feet long and 70 feet wide, which is approximately 0.7 acre. Drawing from the history and design of some of Sacramento's park neighborhoods, the concept of a "boulevard" park would be utilized within the Sutter Park Neighborhood to create a "signature" street, a central recreation amenity, and social gathering place.

Pocket Park

Two pocket parks would be located at each end of Parkway B. A larger pocket park would be located at the end of Parkway B. It would provide a green terminus and focal point and a feature for the cluster of homes at the north end of the project. Although small in scale, pocket parks would provide useful functions to accommodate a range of activities and amenities. The pocket parks would accommodate active and passive uses in a garden setting, such as specimen trees, children's area, picnicking, arbors, and small shade structures.

Garden Paseos

The Garden Paseos would connect the outer streets to the Central Park. The intended design is reminiscent of traditional park neighborhood homes that front on a common green. The paseos would provide passage to other areas of the neighborhood as well as incorporate small seating places.

The Triangle and Community Gardens

The Triangle mixed-use residential building and community gardens would be located at the junction of D Street and Parkway B. This central location would be easily accessible by residents of the Sutter Park Neighborhood, as well as the surrounding neighborhoods. The mixed-use building could include residential lofts above neighborhood-serving uses. The community gardens would be placed at a central location.

The Row Homes

The row homes would be located south of the mixed-use residential and community gardens on D Street. This key location would provide a strong pedestrian relationship to the Central Park via the Paseo Park.

THE COTTAGE HOMES

The Cottage Homes would be located at the northeast junction of F Street and Parkway B and would consist of a cluster of bungalows reminiscent of the Bungalow Courts found interspersed throughout Sacramento's park neighborhoods. These cottages would be arranged around a central green and create a micro-neighborhood within the Sutter Park Neighborhood. The size of the green would be determined during the site design.

THE GARDEN HOMES

The Garden Homes would be situated along the Paseo Parks, perpendicular to the Central Park. These homes would provide an opportunity for detached townhome-style homes with a common green spine.

THE TRADITIONAL PARK NEIGHBORHOOD HOMES

The Traditional Park Neighborhood Homes would provide high quality homes, rich in architectural character, in both street and alley configurations. Homes would reinforce a strong streetscape through architectural variations as well as garage type and placement. Homes would be designed to present a strong architectural statement and frame the roadway with a stately presence, while with a combination of alley-loaded garages, recessed garages, detached garages, and accessory dwelling units above garages to enliven the neighborhood and create a diverse and dynamic streetscape.

INFRASTRUCTURE

ROADWAY AND CIRCULATION

The Sutter Park Neighborhood circulation system would consist of a grid street pattern that would connect the new development to existing neighborhoods. The planned circulation system would provide for access from surrounding neighborhoods to neighborhood amenities. The system would be designed to promote pedestrian and bicycle access to open spaces, parks, sidewalks, or other streets. The backbone of Sutter Park's circulation system would be Parkway B, a portion of which would be a divided street with a central park.

To facilitate pedestrian walkability, block lengths would typically be 500 feet or less to provide a pedestrian-scaled street pattern designed to encourage walking and increase the opportunity for interaction between neighbors. In addition, pedestrian and bicyclist use would be facilitated by an interconnected network of alleys, paseos and street crossings, to simplify alternative modes of travel within the neighborhood.

PARKWAY B

Parkway B Street would abut the southwestern edge of the neighborhood and connect to the existing 51st Street. Parkway B Street is designed with a central park for the residents of Sutter Park Neighborhood and existing nearby homes. In addition, this street would have separated sidewalks and large planters, which exceed City of Sacramento design standards, to provide areas for large canopy

trees and to minimize future maintenance issues associated with mature tree growth. The section of the street surrounding the central park would be intended to be a one-way street with parking on one side to provide access while also creating a focal point on the Central Park. The section of the street near the northeast section of Sutter Park Neighborhood would be designed with travel lanes in both directions and a separated sidewalk and planter strip. Sutter Park Place terminates into a pocket park at the northeast section of the Plan Area.

LOCAL RESIDENTIAL STREETS

Sutter A, Sutter C, Sutter D and Sutter E Streets are traditional local neighborhood streets which would provide access to individual lots and form the internal neighborhood circulation system. The proposed Sutter C Street would connect to F Street at the approximate location of the existing southern entrance to the hospital. The proposed Sutter D Street would connect to 53rd Street in the south and allow access to the parking lot for the existing medical office building. The proposed Sutter D Street terminates at 51st Street in the north. The proposed Sutter A Street would connect to the existing E Street, providing more neighborhood connectivity to the west. These streets would match adjacent existing neighborhood streets and could accommodate on-street parking on each side. Sidewalks would be adjacent to the curb.

ALLEYS

Alleys and alley-loaded housing product are included in the proposed land use plan. Alleys would be strategically located to allow for traditional park houses that front along a paseo. Alleys would be designed as welcoming spaces through the incorporation of landscaping, setbacks, and decorative fencing.

WATER SUPPLY

The proposed project would include water mains under the proposed streets that would connect to existing City of Sacramento water mains. These connections would most likely occur at 51st Street and Sutter D Street, E Street and Sutter A Street, 51st Street and Parkway B, and F Street and Sutter D Street.

STORMWATER AND WASTEWATER COLLECTION

The proposed project would use existing stormwater and wastewater utility infrastructure that is within the roadways adjoining the project site and currently provides service to the existing hospital facility. New utility infrastructure would be routed within the new roadway network. Planned utilities include sewer lines in every street and a centralized storm drain.

The *PUD Design Guidelines* describes recommended low impact development (LID) practices for landscape design to reduce stormwater runoff. These practices include:

- large canopy street trees be planted where appropriate to intercept rainwater and facilitate evapotranspiration;

- infiltration and conveyance trenches be constructed in planting strips planted with native and/or adapted vegetation to provide detention and infiltration depending on design;
- landscape with a rain garden or a vegetative strip provide on-lot detention, filtering of rainwater, and groundwater recharge;
- directly-connected impervious areas be reduced by allowing runoff to go from impervious areas to vegetated areas by disconnecting the gutters and downspouts from roofs and directing the flow to a rain garden;
- rooftop runoff be harvested in a rain barrel for later on-lot use in garden watering;
- rain gardens with grassed swales and other LID techniques be combined to create an integrated system; and
- permeable pavers be used to reduce stormwater runoff for walkways, driveways/parking areas.

ELECTRIC, GAS, TELEPHONE, AND CABLE UTILITIES

The project applicant anticipates that the following service providers would serve the proposed project:

- Electric – Sacramento Municipal Utility District
- Natural Gas – Pacific Gas and Electric

Infrastructure presently exists for these utilities on and in the vicinity of the project site. Development of the project would require the construction of an onsite distribution system to convey these services to uses on the project site.

OFF-SITE IMPROVEMENTS

The proposed project would not include the construction of offsite infrastructure. The project would tie into existing off-site infrastructure from connections on adjacent roads, as described above, and would not require improvements to existing offsite infrastructure related to public utilities such as water, wastewater, and storm drainage.

The project applicant would conduct an inventory of roadways, focused on the construction haul route, to assess the condition of roadways prior to construction. This inventory would be submitted to the City of Sacramento and made available to the public. If construction-related damage to the roadways occurs as a result of the project, the roadways would be repaired by the project applicant or construction contractor, per City of Sacramento Public Works direction and conditions.

PROJECT PHASING

The proposed project has five phases of construction. All activity, including construction equipment staging, would occur onsite.

PHASE I - Demolition: Upon decommissioning of the existing facility the site would be cleared of all buildings, pavement, utilities, select vegetation and related facilities. Existing recyclable materials would

be salvaged, sorted, crushed and/or processed for re-use onsite or transported to local recycling facilities. Impacts to select trees would be avoided where feasible. Construction traffic for this phase, and those below, would utilize the adjoining public road system currently being utilized for access to the existing hospital. If necessary, importation of clean material to balance the site may occur during this phase. Construction staging for materials and equipment would occur within the project site. The anticipated duration of this activity is approximately 180 calendar days, as discussed above.

PHASE II - Rough Grading: The site would be rough graded to elevations shown on final improvement plans. Rough grading activities include building pad preparation, grading of proposed roadways as well as erosion and sediment control features. If necessary, additional importation of clean material to balance the site may occur during this phase. Construction staging for materials and equipment would occur within the project site. The anticipated duration of this activity is approximately two months.

PHASE II - Roadway Improvements: Construct proposed public roadways. Private alleys may be included within Phase III or possibly be constructed concurrent with Phase IV below. Activities would include installation of wet utilities, dry utilities and roadway surface improvements. Sequencing of construction within the area neighboring the adjoining parcel to the southeast would take into account continued access to the existing parking utilized by that site. Construction staging for materials and equipment would occur within the project site. The anticipated duration of this activity is approximately six months.

PHASE IV - Vertical Construction: Construct new neighborhood buildings. Activities include construction of new homes, mixed use buildings, multi-family buildings, privacy fences, driveways and private landscaping Construction staging for materials and equipment would occur within the project site. The timing of this activity would be market driven.

PHASE V - Parks and Open Spaces: Construct new park and open space areas. Activities include finish grading and installation of irrigation, planting, hardscape and new park structures. Construction staging for materials and equipment would occur within the project site. It is possible that Phase V activities may occur earlier in the process.

3.3 REQUIRED DISCRETIONARY ACTIONS

The City of Sacramento requires the following discretionary actions for project approval:

- **EIR Certification.** Before the City can approve the proposed project, it must certify that the EIR was completed in compliance with the requirements of the CEQA, that the decision-making body has reviewed and considered the information in the EIR, and that the EIR reflects the independent judgment of the City of Sacramento. Approval of the EIR also requires adoption of a Mitigation Monitoring Plan, which specifies the methods for monitoring mitigation measures required to eliminate or reduce the project's significant effects on the environment. The City would also be required to adopt Findings of Fact and, for any impacts determined to be significant and unavoidable, a Statement of Overriding Considerations, as part of project approval.

- **General Plan Amendment.** The proposed project would require a General Plan amendment to change the land use designation from Public/Quasi-Public to Traditional Neighborhood Low.
- **Rezone.** The project would require a rezone of the project site to change the zoning from Hospital to approximately 18 acres R-1A (PUD), 0.4 acres RMX (PUD), and 0.87 acres R-3A (PUD).
- **Development Agreement.** The City and applicant would enter into a development agreement for allocation of infrastructure costs, park dedication requirements, and various agreements.
- **PUD Designation and Development Guidelines.** The project would require approval of a Planned Unit Development designation. A PUD controls the development of land with specific regulations related to design. The purpose of a PUD is to provide greater flexibility in the design or development standards of integrated developments than is otherwise possible through strict application of zoning regulations. PUDs can include all or a portion of a residential neighborhood, an employment center, or a mixed residential/employment development.
- **Tentative Subdivision Map.** The applicant is seeking approval of a tentative map.

3.4 OTHER PERMITS AND APPROVALS

Several agencies would be involved in the consideration of proposed project elements. As the lead agency under CEQA, the City of Sacramento is responsible for considering the adequacy of the EIR and determining if the overall project should be approved. Responsible agencies would include the Office of Statewide Health Planning and Development and Sacramento County Emergency Medical Services. State and local approvals that would be considered for the proposed project would include the following:

- City of Sacramento Tree Permit for removal of heritage trees,
- demolition permit,
- grading permit,
- building permits,
- Sacramento County EMS approval for Emergency Room Closure, and
- OSHPD Decommissioning of General Acute Care Hospital Facilities.

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4 LAND USE, POPULATION, AND HOUSING

The Land Use, Population, and Housing section provides information regarding current General Plan land use and zoning designations, as well as applicable City land use policies. This section also compares the proposed project's anticipated population increase to the planned population for the site in the City's General Plan.

Comments received on the Notice of Preparation that relate to land use, population and housing include comments related to a perceived reduction in property value, comments about the City issuance of a closure permit for the existing hospital, and a request that the medical building at 5301 F Street be included in the General Plan Amendment, that infill units be maximized on the site, and that housing variety remain a focus of the project. Comments also addressed economic issues related to the potential for loss of retail business associated with hospital closure, and design-related concerns associated with lots backing onto public streets.

4.1 ENVIRONMENTAL SETTING

The project site is located in East Sacramento and is currently developed with a seven-story hospital and associated medical buildings and associated parking lots. Surrounding land uses include single-family houses, with the exception of a three-story (plus basement) medical office building and parking lot immediately east of the project site. The project site is located in the center of a well-established large single-family residential community. The nearest commercial/retail uses are located along Elvas Avenue, approximately 0.2 mile east of the site, as well as a few retail shops somewhat closer along H Street.

4.2 CURRENT PLANNING CONTEXT

4.2.1 PROJECT SITE GENERAL PLAN LAND USE DESIGNATION

The *City of Sacramento 2030 General Plan* is the principal tool the City uses when evaluating land use proposals. The General Plan establishes policies that regulate new development projects within City limits, both directly and indirectly. Directly, General Plan policies give direction about the types and make-up of projects that can and cannot be approved. Development projects must also comply with the zoning ordinance, subdivision regulations, and design guidelines, all of which are implementation tools for General Plan policies. All land use decisions are governed by the General Plan and must be consistent with the General Plan's direction. However, the City also has latitude to amend its General Plan, which is a discretionary action.

The *City of Sacramento 2030 General Plan* (2009) land use designation for the project site is Public/Quasi-Public (see Exhibit 4-1, Proposed General Plan Amendment). The 2030 General Plan indicates (p. 2-112) that the Public/Quasi-Public designation describes areas with unique uses and

typically unique urban forms. These areas host community services and/or educational, cultural, administrative, and recreational facilities often located within a well-landscaped setting. Most of these areas provide a public function and as a result, existing buildings often include a significant amount of surface parking lots and structured parking to accommodate users of the facilities. It should be noted that many Public/Quasi-Public uses are also allowed and are located in other land use and urban form designations. Allowed uses in the Public/Quasi-Public land use designation include government buildings, public and private schools/colleges, hospitals, cemeteries, airports, transportation and utility facilities, and other compatible public and quasi-public uses.

4.2.2 PROJECT SITE ZONING

The existing City of Sacramento zoning for the project site is Hospital (H) (see Exhibit 4-2, Proposed Rezone). This zone is designed primarily for medically related services such as hospitals and convalescent homes, and for group care facilities for the physically and mentally handicapped. In addition, medical offices, laboratories, and pharmacies are also permitted. (Note that the proposed General Plan Amendment and Rezone shown in Exhibits 4-1 and 4-2 above are described in detail in Chapter 3, “Project Description” and are discussed further below in the Land Use Evaluation.)

4.2.3 ADJACENT LAND USE DESIGNATIONS

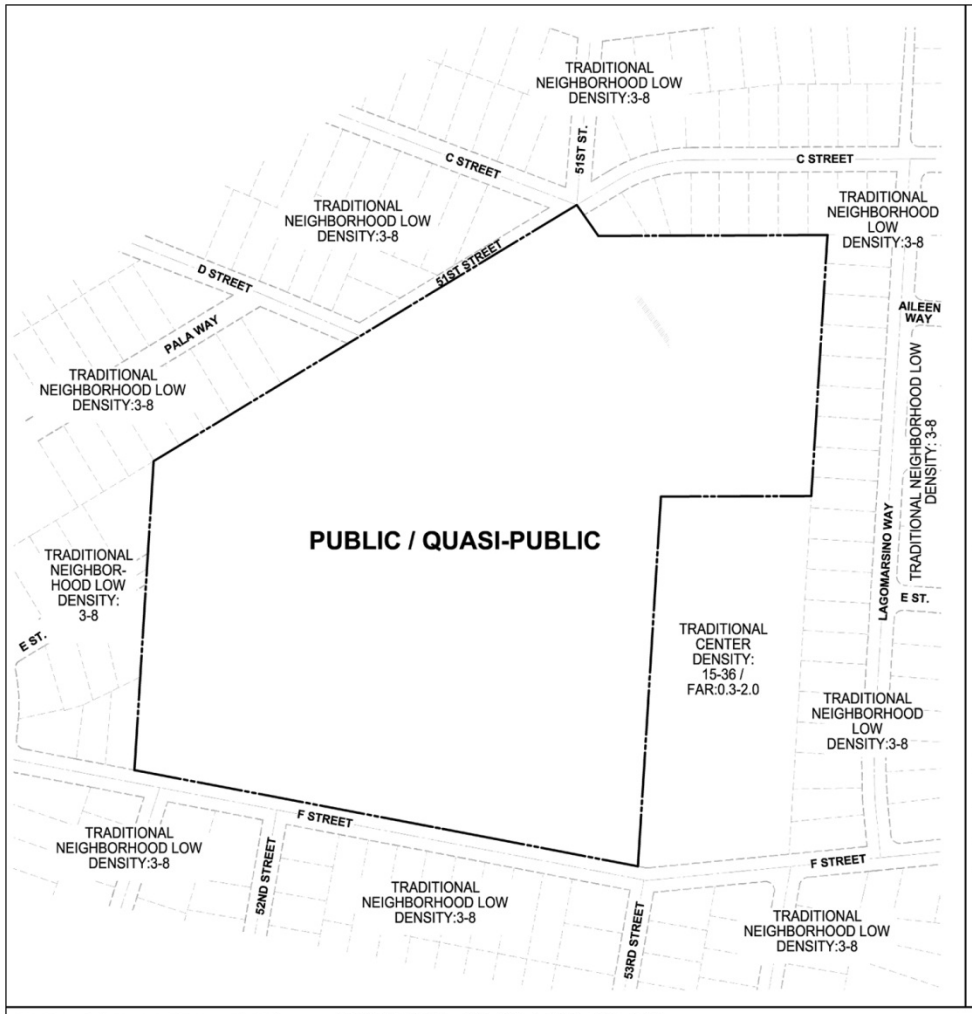
The project site is mostly surrounded by land designated in the 2030 General Plan as Traditional Neighborhood Low Density. The only exception is the parcel located immediately east of the site, which is designated Traditional Center Density 15-36 (see Exhibit 4-1).

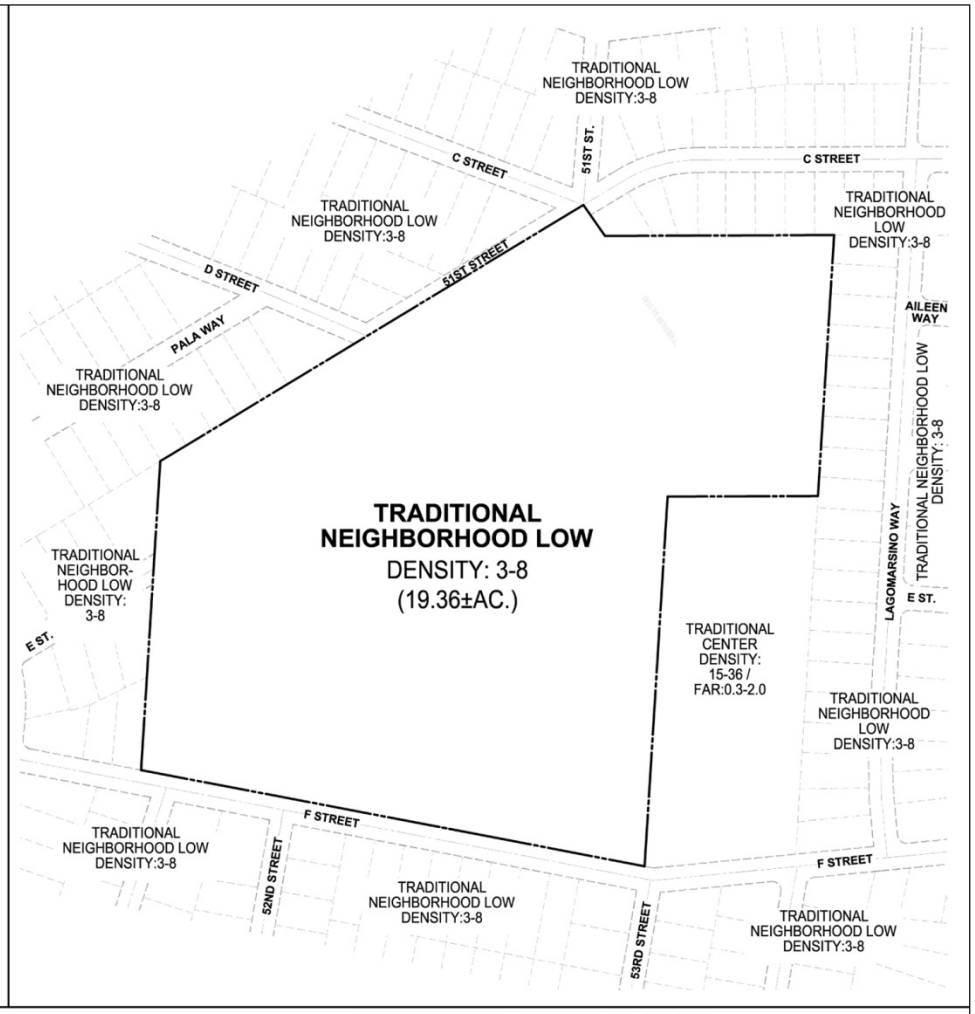
TRADITIONAL NEIGHBORHOOD LOW DENSITY

The Traditional Neighborhood Low Density designation provides for moderate-intensity housing and neighborhood-support uses and allows buildings between one and three stories and density between three and eight dwelling units per acre.

TRADITIONAL CENTER

The 2030 General Plan indicates that traditional centers are a critical element of sustainable, walkable traditional neighborhoods that provide essential daily services within walking distance of surrounding residents. Infill development in areas designated as Traditional Center can create additional character and spatial definition. Residential and office uses can also be integrated into traditional centers. This designation provides for predominantly nonresidential, moderate intensity, single-use commercial development or horizontal and vertical mixed-use development (City of Sacramento 2009). Allowed building heights range from one to four stories and lot coverage does not generally exceed 80 percent. Allowable density ranges between 0.3 and 2.0 floor-area ratio (FAR).





EXISTING GENERAL PLAN

12010083 01 002

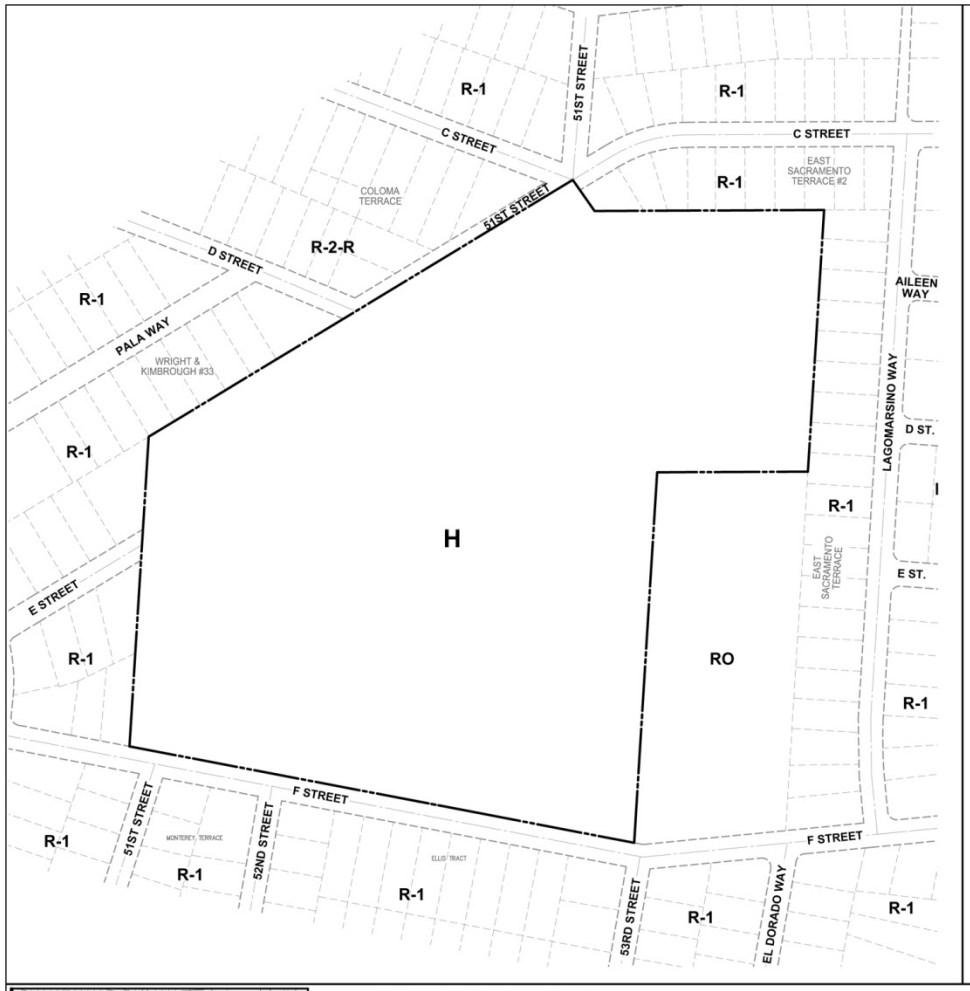
SUMMARY TABLE

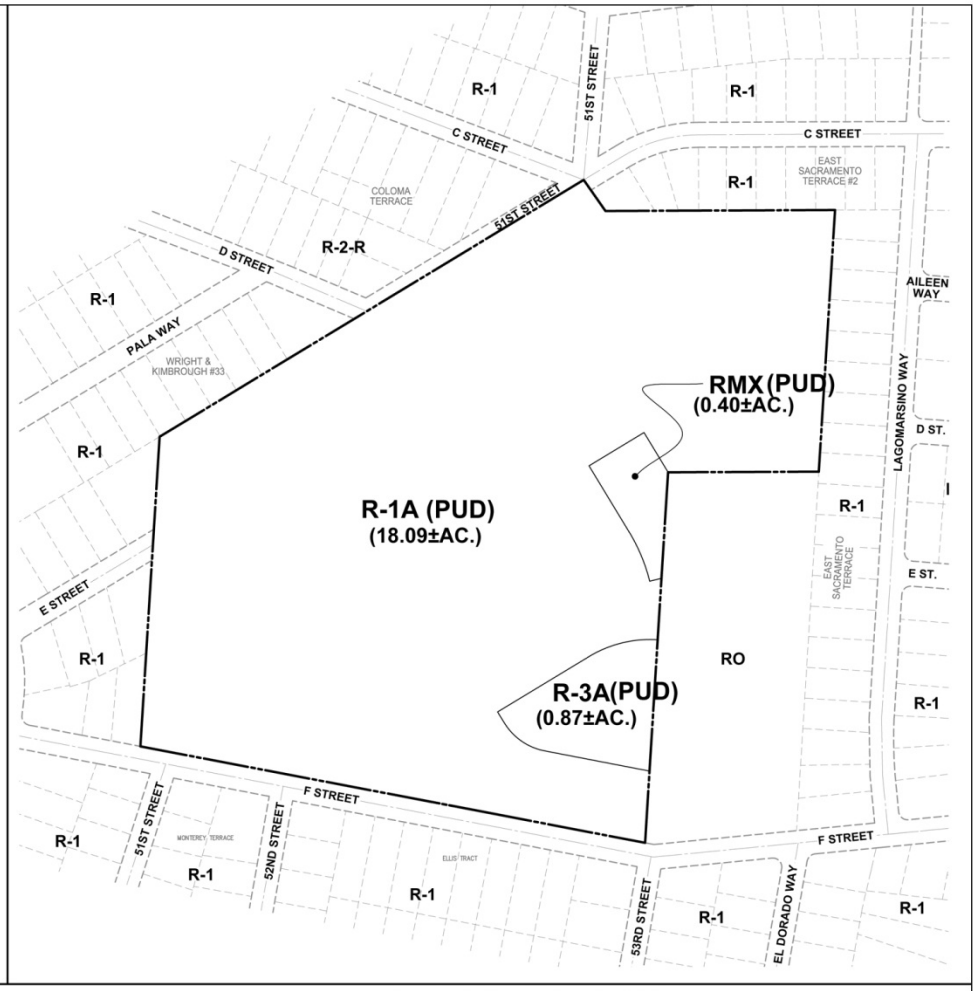
DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
PUBLIC/ QUASI-PUBLIC	HOSPITAL	19.36 AC.	-	- 19.36 AC.
TRADITIONAL NEIGHBORHOOD LOW DENSITY (3-8)	LOW-DENSITY RESIDENTIAL	-	19.36 AC.	+ 19.36 AC.
		19.36 AC.	19.36 AC.	

PROPOSED GENERAL PLAN

Source: Received from StoneBridge Properties and Cunningham Engineering in 2013; Adapted by Ascent Environmental in 2013

Exhibit 4-1 **Proposed General Plan Amendment**





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EXISTING ZONING

PROPOSED REZONING

SUMMARY TABLE

DESIGNATION	LAND USE	EXISTING	PROPOSED	DIFFERENCE
H	HOSPITAL	19.36 AC.	-	- 19.36 AC.
R-1A (PUD)	SINGLE FAMILY RESIDENTIAL	-	18.09 AC.	+ 18.09 AC.
R-3A (PUD)	MULTI-FAMILY RESIDENTIAL	-	0.87 AC.	+0.87 AC.
RMX (PUD)	RESIDENTIAL MIXED USE	-	0.40 AC.	+0.40 AC.
		19.36 AC.	19.36 AC.	

100 50 0 100 200

Source: Received from StoneBridge Properties and Cunningham Engineering in 2013; Adapted by Ascent Environmental in 2013

Exhibit 4-2 **Proposed Rezone**

4.2.4 ADJACENT ZONING

Zoning adjacent to the project site includes primarily Standard Single-Family (R-1), but also includes Two Family Review (R-2-R), and Residential Office (RO) (see Exhibit 4-2).

R-1 ZONE

The R-1 zone is a low-density residential zone composed of single-family detached residences on lots a minimum of 52 feet by 100 feet in size. A duplex or halfplex is allowed on a corner lot subject to compliance with specific restrictions. In addition, alternative ownership housing types, such as townhouses, rowhouses, and cluster housing, may be permitted with a special permit to satisfy inclusionary housing requirements. Approximate density for the R-1 zone is six to eight dwelling units per acre.

R-2-R ZONE

This is a residential zone allowing two single-family attached or detached units under one ownership. This zone is intended to provide a low density buffer between single-family and more intense land uses. Maximum density for the R-2-R zone is 14 to 16 dwelling units per acre.

RO ZONE

The RO Zone is a medium density multiple family zone, generally located inside the central city and in certain adjacent areas. The zone permits development of office uses subject to the granting of a special permit by the planning and design commission. The special permit allows city review of the project to ensure that the proposed office use is compatible with adjacent residential uses. Maximum density in the RO zone is 36 dwelling units per acre.

4.2.5 EAST SACRAMENTO COMMUNITY PLAN

The project site is located within the East Sacramento Community Plan, which was last updated with the City's General Plan in 2009. The Community Plan was adopted with and is a component of the City's 2030 General Plan. The Community Plan Area encompasses a diverse collection of traditional neighborhoods, centers, and transportation routes. Almost fully built-out, any remaining vacant land is scattered throughout the Plan Area. Four neighborhoods make up the Plan Area including East Sacramento (within which the project site is located), College/Glen, the Sacramento State campus and environs, and River Park. The majority of residential development in East Sacramento is made up of single-family homes in traditional neighborhoods (City of Sacramento 2009).

Retail and commercial centers are distributed throughout the Community Plan Area and serve neighborhood service needs. Employment within East Sacramento is primarily office, followed by retail. The public sector, comprising local, state, and federal employees (e.g., teachers at local schools and Sacramento State), is a significant employer in the East Sacramento Plan Area. Major employment

centers are Sacramento State, Mercy Medical Center, and industrial areas south of Folsom Boulevard. While industrial sectors employ the least number of people, they are still a significant source of jobs. East Sacramento has a relatively balanced jobs-to-housing ratio of 1.4 jobs for every housing unit in the Plan Area (City of Sacramento 2009).

The East Sacramento Community Plan designation for the project site is Public/Quasi Public, consistent with the General Plan land use designation described above. The surrounding land uses are also designated the same as in the General Plan as described above (Traditional Neighborhood Low Density and Traditional Center).

4.3 EXISTING POPULATION AND HOUSING

4.3.1 POPULATION

As stated in the 2030 General Plan Housing Element (City of Sacramento 2008), the city's population was 467,343 on January 1, 2007. The Housing Element indicates that the City of Sacramento's growth rate since 1990 has equaled the overall growth in the State of California, and Sacramento's share of the state population has remained approximately one percent of the state total. Based on historical trends in the region, population within the City of Sacramento was forecasted by the Sacramento Area Council of Government (SACOG) to increase by 13 percent by 2025 (City of Sacramento 2008). The 2008 Housing Element identifies a 2 percent average annual population increase, based on 2007 data from the California Department of Finance (DOF).

The City is currently preparing an updated 2013 Housing Element. According to the draft Housing Element update, Sacramento's population was 466,488 on April 1, 2010. The population within the city of Sacramento is forecasted by SACOG to increase by 1.0 percent annually from 2010 to 2020 and 1.3 percent annually from 2020 to 2035. The draft Housing Element update indicates that the City had a slightly faster growth rate from 2000-2010, which may explain the 2008 Housing Element projection of 2 percent annual growth (City of Sacramento 2013).

4.3.2 HOUSING

The City's current Housing Element (City of Sacramento 2008) states that the average household size increased in the City of Sacramento during the 1990s, but then leveled off. Sacramento's average household size in 1990 was 2.50, increasing to 2.57 in 2000 and declining slightly to 2.54 in 2006. The number of households in Sacramento increased from 144,661 in 1990 to 178,607 in 2007, a 23 percent change. The Housing Element states that the City's population is growing faster than the number of households, increasing by 27 percent during this same time. More recent California Department of Finance estimates indicate the number of households in the City in 2013 is approximately 191,380 (DOF 2013). The draft Housing Element update draws the same conclusion, indicating that the number of households in Sacramento increased by 21 percent between 1999 and 2010, while the City's population increased by 26 percent during that same time (City of Sacramento 2013).

4.4 REGULATORY SETTING

4.4.1 FEDERAL

There are no federal regulations that are directly applicable to the proposed project regarding land use, population, and housing.

4.4.2 STATE

There are no State regulations that are directly applicable to the proposed project regarding land use, population, and housing.

4.4.3 LOCAL

Applicable City of Sacramento plans, including the City of Sacramento 2030 General Plan, the City of Sacramento Zoning Code, and the East Sacramento Community Plan are described above under "Current Planning Context." Applicable City of Sacramento 2030 General Plan policies are identified in Table 4-1, included below.

4.5 LAND USE EVALUATION

4.5.1 PLANNING CONSIDERATIONS UNDER CEQA

The Environmental Checklist included as Appendix G of the State CEQA Guidelines identifies several considerations that a lead agency should normally address regarding land use, including physical division of an established community, conflicts with any applicable City general plan land use designation or policy adopted for the purpose of avoiding or mitigating an environmental effect, and conflicts with any applicable habitat conservation plan or natural community conservation plan.

There are no habitat conservation plans or natural community conservation plans associated with the project site. Therefore consistency with such plans is not discussed further.

As stated above, NOP comments raised issues associated with loss of property value associated with the proposed project, as well as potential loss of business for local retailers. Property value and issues of economics are not considered environmental issues under CEQA, unless there would be a connection between a project's economic effects and physical environmental changes (see CEQA Guidelines Section 15131). One example of this is when a discount shopping center is developed on the edge of a town and draws shoppers from a downtown shopping area, causing vacancies and eventual physical blight. Instances of direct connection between a project's economic effects and environmental impacts are unusual. Development of a new single-family residential development that is consistent with the surrounding community would not be expected to result in economic impacts such that blight or any other similar direct or indirect physical changes would occur. The proposed project would not directly or indirectly affect local economic conditions such that substantial urban-decay-

related impacts would occur. The existing hospital uses would be transferred to the new Sutter Women's and Children's Center. The issue of project-related economic impact is not discussed further.

Other NOP comments discuss issues with the City's entitlement and permit process, including issuance of a closure permit. Issues of municipal process (except as they relate to environmental review and the CEQA process) are not environmental issues under CEQA. It should be noted that, although the City's planning and permit process does not include a permit for closure in this case, the City does require issuance of a permit for demolition of the structure.

Regarding the NOP comment that identifies design issues associated with lots backing on F Street, the proposed site plan includes three through lots that would back onto 51st Street. It should be noted that the PUD Guidelines require additional architectural enhancement elements for corner and through lots, such as roof dormers, exposed rafter tails, and enhanced window embellishments. As part of the required site plan and design review process by the City of Sacramento, appropriate fencing would be required along the public street frontages of through lots to allow visibility onto the street and provide better security. In addition, issues of design, except as they relate to potential adverse physical environmental effects, are not considered environmental issues under CEQA.

4.5.2 COMPATIBILITY WITH EXISTING SURROUNDING LAND USES

The proposed single-family residential and mixed use project would replace an existing multi-story hospital in a well-established East Sacramento neighborhood. The proposed residential and mixed use development would replace the existing hospital building with homes, parks, paseos, and walkable streets. The project, designed with a modified grid layout, would increase the pedestrian, bicycle, and vehicular connectivity of the existing neighborhood. The project would also provide pedestrian connections to two new parks. Proposed PUD Guidelines include landscape and architectural design requirements to ensure compatibility with the scale and the character of the East Sacramento neighborhood. Therefore, the proposed project would not divide the established East Sacramento community, but would increase connectivity and would be more compatible with the existing surrounding land uses than the existing hospital.

4.5.3 COMPATIBILITY OF THE PROPOSED GENERAL PLAN AMENDMENT AND REZONE WITH THE LAND USE DESIGNATIONS AND ZONING OF THE PROJECT SITE AND SURROUNDING PROPERTIES

The project site is currently designated Public/Quasi Public and zoned H (Hospital). City of Sacramento planning staff have determined that the appropriate General Plan land use designations to accommodate the proposed project would be Traditional Neighborhood Low Density with Single Family Alternative (R-1A [PUD]), Multi-Family (R-3A [PUD]), and Residential Mixed Use (RMX [PUD]) zoning. The proposed project, as implemented under the proposed PUD Guidelines, would be consistent with the densities and development standards allowed within the proposed General Plan land use designations and zoning. Specifically, the Traditional Neighborhood Low designation provides for moderate-intensity housing and neighborhood-support uses including single-family detached dwellings,

single-family attached dwellings (e.g., duplexes, triplexes, townhomes), accessory second units, limited neighborhood-serving commercial on lots two acres or less, compatible public, quasi-public, and special uses. Allowed density under the Traditional Neighborhood Low designation ranges from three to eight dwelling units per acre. The proposed development of single-family residences and row homes is consistent with the types of land uses allowed within the proposed designation. Proposed density would be approximately 7.9 dwelling units per acre.

The project also includes the establishment of a PUD, which provides specific development requirements that allow for greater flexibility than the specific land use designation/zoning of the site. Once adopted, project development would be required to be consistent with the adopted PUD Guidelines consistent with the Planning and Development Code.

4.5.4 CONSISTENCY WITH EXISTING GENERAL PLAN POLICIES

Table 4-1 below evaluates, in detail, the consistency of the proposed project with all applicable City of Sacramento 2030 General Plan policies. As indicated in the table, the proposed project is consistent with all of the applicable policies. Other General Plan policies related to environmental resources and issues are discussed specifically in Sections 5.1 through 5.10 of this EIR.

Table 4-1 City of Sacramento 2030 General Plan Policy Consistency Matrix

Applicable City of Sacramento 2030 General Plan Policy	Consistent? (Y/N)	Explanation
LU 1.1.5: Infill Development. The City shall promote and provide incentives (e.g., focused infill planning, zoning/rezoning, revised regulations, provision of infrastructure) for infill development, redevelopment, mining reuse, and growth in existing urbanized areas to enhance community character, optimize City investments in infrastructure and community facilities, support increased transit use, promote pedestrian- and bicycle-friendly neighborhoods, increase housing diversity, ensure integrity of historic districts, and enhance retail viability. (RDR/MPSP)	Y	The project site is currently developed and is surrounded by an established urban neighborhood. The proposed project is a classic example of infill redevelopment and would promote pedestrian/bicycle friendly neighborhoods and increase housing diversity and would provide a mixed use retail component to serve the proposed residents and the surrounding community.
LU 2.1.2: Protect Established Neighborhoods. The City shall preserve, protect, and enhance established neighborhoods by providing sensitive transitions between these neighborhoods and adjoining areas, and requiring new development, both private and public, to respect and respond to those existing physical characteristics buildings, streetscapes, open spaces, and urban form that contribute to the overall character and livability of the neighborhood. (RDR)	Y	The proposed project would be consistent with the residential use and density of the surrounding area and appropriately responds to the existing East Sacramento neighborhood character by drawing upon the most successful examples of local and regional architecture found within Sacramento's East Sacramento and Sacramento's other park neighborhoods.
LU 2.7.6: Walkable Blocks. The City shall require new development and redevelopment projects to create walkable, pedestrian-scaled blocks, publicly accessible mid-block and alley pedestrian routes where appropriate, and sidewalks appropriately scaled for the anticipated pedestrian use. (RDR)	Y	Designed as a modified grid, the project would be highly walkable, providing new connections to neighborhood streets and access to new parks, including through alleys.

Table 4-1 City of Sacramento 2030 General Plan Policy Consistency Matrix		
Applicable City of Sacramento 2030 General Plan Policy	Consistent? (Y/N)	Explanation
LU 4.1.3: Walkable Neighborhoods. The City shall require the design and development of neighborhoods that are pedestrian friendly and include features such as short blocks, broad and well-appointed sidewalks (e.g., lighting, landscaping, adequate width), tree-shaded streets, buildings that define and are oriented to adjacent streets and public spaces, limited driveway curb cuts, paseos and pedestrian lanes, alleys, traffic-calming features, convenient pedestrian street crossings, and access to transit. (RDR/MPSP)	Y	The proposed project includes tree planting along all interior streets and within the central and pocket park. Proposed structures would be oriented to the street, and project streets would include street lighting. New parks would be connected to the neighborhood by pedestrian-friendly streets and pedestrian-only "garden paseos."
LU 4.1.4: Alley Access. The City shall encourage the use of well-designed and safe alleys to access individual parcels in neighborhoods in order to reduce the number of curb cuts, driveways, garage doors, and associated pedestrian/ automobile conflicts along street frontages. (RDR)	Y	The proposed project would include safe alley access by ensuring appropriate lighting and visibility.
LU 4.1.7: Connections to Open Space. The City shall ensure that new and existing neighborhoods contain a diverse mix of parks and open spaces that are connected by trails, bikeways, and other open space networks and are within easy walking distance of residents. (RDR/MPSP)	Y	The project would include two well-connected, centrally located parks with pedestrian-only "garden paseos" providing access to the larger central park.
LU 4.1.10: Balanced Neighborhoods. The City shall require new major residential development to provide a balanced housing mix that includes a range of housing types and densities. (RDR)	Y	The project would include a variety of housing types that would provide a balance of densities while transitioning appropriately with the lower density East Sacramento neighborhood. Proposed residential density ranges from 6.7 to 15.3 dwelling units per acre.
LU 4.3.1: Traditional Neighborhood Protection. The City shall protect the pattern and character of Sacramento's unique traditional neighborhoods, including the street-grid pattern, architectural styles, tree canopy, and access to public transit, neighborhood services and amenities. (RDR	Y	The proposed project would be generally consistent with the residential use and density of the surrounding traditional East Sacramento neighborhood and would feature a modified grid design to provide enhanced connection and to maintain the traditional street feel.
LU 4.3.5: Density Regulations for Mixed-Density Development Projects. Where a developer proposes a multi-parcel development project with more than one residential density or FAR, the applicable density or FAR range of the General Plan Land Use Designation shall be applied to the net developable area of the entire project site rather than individual parcels within the site. Some parcels may be zoned for densities/intensities that exceed the maximum allowed density/intensity of the project site's Land Use Designation, provided that the net density of the project as a whole is within the allowed range. (RDR)	Y	The project includes a proposed General Plan Amendment from Public/Quasi-Public to Traditional Neighborhood Low. The proposed density is consistent with the allowed density of the Traditional Neighborhood Low designation (see land use designation consistency discussion below).
ER 7.1.3: Minimize Removal of Existing Resources. The City shall require new commercial, industrial, and residential development to minimize the removal of mature	Y	Impacts to select trees would be avoided where feasible. The project applicant would develop guidelines to identify trees that

Table 4-1 City of Sacramento 2030 General Plan Policy Consistency Matrix		
Applicable City of Sacramento 2030 General Plan Policy	Consistent? (Y/N)	Explanation
trees, and other significant visual resources present on the site. (RDR)		could remain onsite, based on such elements as the project footprint and the health of the selected trees. The guidelines would also include potential construction strategies to minimize potential effects to the dripline of existing trees that would remain.
U 1.1.11: Underground Utilities. The City shall require undergrounding of all new publicly owned utility lines, encourage undergrounding of all privately owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines. (RDR/IGC)	Y	All proposed utilities would be installed underground.
U 3.1.3: Stormwater Infiltration Reduction. The City shall develop design standards that reduce infiltration into new City-maintained sewer pipes. (RDR/MPSP)	Y	The proposed project drainage plan would be designed consistent with City standards.
U 4.1.5: New Development. The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures to prevent on- or off-site flooding. (RDR)	Y	The applicant would submit any required drainage studies prior to issuance of grading permits.
U 5.1.16: Recycling and Reuse of Construction Wastes. The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting 85 percent to a certified recycling processor. (RDR)	Y	The proposed conceptual demolition plan includes building material recycling and re-use. See Section 2 “Project Description” for more detail.
ER 1.1.4: New Development. The City shall require new development to protect the quality of water bodies and natural drainage systems through site design, source controls, storm water treatment, runoff reduction measures, best management practices (BMPs) and Low Impact Development (LID), and hydromodification strategies consistent with the city’s NPDES Permit. (RDR/MPSP/SO)	Y	The proposed PUD Guidelines encourage the incorporation of LID features including stormwater planters (native plantings), pervious pavement, rain gardens or vegetative strips, and rooftop runoff harvesting.
ER 3.1.6: Urban Heat Island Effects. The City shall continue to promote planting shade trees with substantial canopies, and require, where feasible, site design which uses trees to shade rooftops, parking facilities, streets, and other facilities to minimize heat island effects. (RDR/PI)	Y	The proposed project includes street tree planting (maximum 40-foot spacing) along all interior roadways, except for alleys.
ER 4.2.1: Protect Agricultural Lands. The City shall encourage infill development and compact new development within the existing urban areas of the city in order to minimize the pressure for premature conversion of productive agricultural lands for urban uses. (RDR)	Y	The proposed project would be a residential and mixed use infill project consistent with the surrounding residential neighborhood.
ER 7.1.5: Lighting. The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary. (RDR)	Y	The proposed PUD Guidelines indicate that lighting would be designed to minimize ambient light levels and to minimize glare. No lighting would be of unusually high intensity or brightness. All lighting would be consistent with the City’s standards.

Table 4-1 City of Sacramento 2030 General Plan Policy Consistency Matrix		
Applicable City of Sacramento 2030 General Plan Policy	Consistent? (Y/N)	Explanation
M 1.3.1: Grid Network. The City shall require all new residential, commercial, or mixed-use development that proposes or is required to construct or extend streets to develop a transportation network that provides for a well-connected, walkable community, preferably as a grid or modified grid. (RDR)	Y	The modified grid design would provide a high level of pedestrian, bicycle, and vehicular connectivity to the surrounding transportation network.
M 1.3.4: Barrier Removal for Accessibility. The City shall remove barriers, where feasible, to allow people of all abilities to have access within and among infrastructure serving the community. (MPSP/SO)	Y	The proposed project would increase the connectivity of the neighborhood and would be consistent with all Americans with Disabilities Act requirements.
M 2.1.5: Continuous Network. The City shall provide a continuous pedestrian network in existing and new neighborhoods that facilitates convenient pedestrian travel free of major impediments and obstacles. (MPSP)	Y	Designed as a modified grid, the project would be highly walkable, providing new connections to neighborhood streets and access to new parks, including through alleys.
M 2.1.8: Housing and Destination Connections. The City shall require new subdivisions and large-scale developments to include safe pedestrian walkways that provide direct links between streets and major destinations such as transit stops and stations, schools, parks, and shopping centers. (RDR)	Y	The modified grid is designed to provide a safe and well-connected pedestrian/bicycle network. The project would not alter or eliminate the existing transit route #34. The public would continue to have the same level of access to transit as under existing conditions.
M 4.2.2: Pedestrian and Bicycle-Friendly Streets. The City shall ensure that new streets in areas with high levels of pedestrian activity (e.g., employment centers, residential areas, mixed-use areas, schools) support pedestrian travel by providing such elements as detached sidewalks, frequent and safe pedestrian crossings, large medians to reduce perceived pedestrian crossing distances, Class II bike lanes, frontage roads with on-street parking, and/or grade-separated crossings. (MPSP)	Y	The project is designed to provide abundant opportunities for walking and bicycling through the provision of short block lengths, sidewalks, alleys and paseos to shorten travel distances. The pedestrian mode is further encouraged by the proposed trail systems with tree canopied walkways and inviting architecture and lighting palettes.
M 4.2.3: Adequate Street Tree Canopy. The City shall ensure that all new roadway projects and major reconstruction projects provide for the development of an adequate street tree canopy. (MPSP)	Y	The proposed project includes street tree planting (maximum 40-foot spacing) along all interior roadways, except for alleys.
M 4.3.1: Neighborhood Traffic Management. The City shall continue wherever possible to design streets and approve development applications in such as manner as to reduce high traffic flows and parking problems within residential neighborhoods. (RDR/MPSP)	Y	The modified grid design would provide a high level of pedestrian, bicycle, and vehicular connectivity to the surrounding transportation network. The proposed residential use would result in a decrease in the traffic volumes on adjacent streets and would result in a distribution pattern more consistent with the surrounding neighborhood.

4.6 POPULATION AND HOUSING EVALUATION

4.6.1 POPULATION AND HOUSING CONSIDERATIONS UNDER CEQA

Regarding population and housing, Appendix G of the CEQA Guidelines identifies several considerations that a lead agency should normally address including the inducement of substantial population growth and the displacement of substantial numbers of existing housing or people, necessitating replacement housing elsewhere. A discussion of project-related inducement of population growth is included in Chapter 6, "Other CEQA Considerations." It should be noted that because the proposed project replaces an existing hospital, which does not provide long-term convalescent care, with new housing, displacement of existing housing or people would not result from the proposed project and this issue is not evaluated further.

4.6.2 CONSISTENCY WITH THE CITY'S GENERAL PLAN HOUSING ELEMENT

According to the City's currently adopted General Plan Housing Element (City of Sacrament 2008) Sacramento (along with all other cities and counties in the state) must plan to accommodate its share of the housing need of persons at all income levels. The fair share process began with a regional allocation from the State Department of Housing and Community Development. SACOG then determines what share of the regional allocation will be met by each of its member cities and counties, including the City of Sacramento. The City's share of regional housing need or the City's Regional Housing Need Allocation is based on SACOG's Regional Housing Needs Plan. Under this plan, Sacramento must accommodate 17,649 new housing units between 2006 and 2013.

The draft update to the General Plan Housing element (City of Sacramento 2013) includes new housing needs numbers, indicating that Sacramento must accommodate 24,101 new housing units between 2013 and 2021 (over 6,000 additional units than identified between 2006 and 2013 by the current Housing Element). In addition, the current Housing Element (City of Sacramento 2008) includes several policies. Table 4-2 includes a consistency evaluation of the project with respect to each of the applicable Housing Element policies. As shown in Table 4-2, the proposed project is consistent with all the applicable Housing Element policies.

Table 4-2 2030 General Plan Housing Element Policy Consistency Matrix

Applicable 2030 General Plan Housing Element Policy	Consistent? (Y/N)	Explanation
Policy H-1.1.1: The City shall promote sustainable housing practices that incorporate a "whole system" approach to siting, designing and constructing housing that is integrated into the building site, consume less energy, water, and other resources, and are healthier, safer, more comfortable, and durable.	Y	The proposed PUD Guidelines identify several sustainable design practices through a variety of measures including energy efficient design, functional street trees, edible landscape, drought resistant plant materials, and LID features. The modified grid layout and connectivity to the neighborhood and new parks would promote human health and safe and comfortable pedestrian and vehicular circulation.

Table 4-2 2030 General Plan Housing Element Policy Consistency Matrix

Applicable 2030 General Plan Housing Element Policy	Consistent? (Y/N)	Explanation
Policy H-1.2.1: The City shall encourage the development and redevelopment of neighborhoods that include a variety of housing tenure, size and types, such as second units, carriage homes, lofts, live-work spaces, cottages, and manufactured/modular housing.	Y	The proposed redevelopment of the Sutter Hospital site would include a range of housing types and densities from low density single-family detached units to compact higher density row houses.
Policy H-1.2.2: The City shall encourage a greater variety of housing types and sizes to diversify, yet maintain compatibility with, single family neighborhoods.	Y	The project has been designed to offer a variety of housing types and densities that would integrate into the surrounding neighborhood.
Policy H-1.2.4: The City shall actively support and encourage mixed-use retail, employment and residential development around existing and future transit stations, centers and corridors.	Y	The proposed project would include an element of mixed use retail to serve the proposed residences and the surrounding community.
Policy H-1.3.1: The City shall encourage economic and racial integration, fair housing opportunity and the elimination of discrimination.	Y	The proposed housing development would be required under federal laws enforced by the Office of Fair Housing and Equal Opportunity (FHEO) that all citizens have equal access to housing.
Policy H-1.3.4: The City shall encourage a range of housing opportunities for all segments of the community as part of the community planning and implementation process for newly annexed, newly developing, re-use and intensification areas.	Y	The proposed project would offer a variety of housing types and densities.

5 INTRODUCTION TO THE ANALYSIS

SCOPE OF THE EIR ANALYSIS

The Environmental Analysis chapter of this Draft EIR discusses the environmental and regulatory setting, impacts, and mitigation measures for each of the following technical issue areas (Sections 5.1 through 5.10):

5.1 Aesthetics
5.2 Air Quality
5.3 Biological Resources
5.4 Climate Change
5.5 Cultural Resources
5.6 Hazards and Hazardous Materials
5.7 Noise
5.8 Transportation and Traffic
5.9 Public Services and Recreation
5.10 Utilities and Service Systems

TERMINOLOGY USED IN THE EIR

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

Less-Than-Significant Impact: A project impact is considered less than significant when it does not reach the standard of significance and would therefore cause no substantial change in the environment (no mitigation required).

Potentially Significant Impact: A potentially significant impact is an environmental effect that may cause a substantial adverse change in the environment; however, additional information is needed regarding the extent of the impact to make the determination of significance. For CEQA purposes, a potentially significant impact is treated as if it were a significant impact.

Significant Impact: A project impact is considered significant if it results in a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects in the context of specified significance criteria. Mitigation measures and/or project alternatives are identified to reduce these effects to the environment where feasible.

Significant and Unavoidable Impact: A project impact is considered significant and unavoidable if it would result in a substantial adverse change in the environment that cannot be feasibly avoided or mitigated to a less-than-significant level if the project is implemented. If a lead agency proposes to approve a project with significant unavoidable impacts, it must adopt a Statement of Overriding Considerations to explain its actions.

Cumulative Impacts: According to CEQA, “cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts” (CEQA Guidelines, Section 15355). CEQA requires that cumulative impacts be discussed when the “project’s incremental effect is cumulatively considerable” (CEQA Guidelines, Section 15130 (a)).

Mitigation Measures: The CEQA Guidelines (Section 15370) define mitigation as:

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

FORMAT OF THE ENVIRONMENTAL ANALYSIS

Each section begins with a description of the project environmental setting and a regulatory setting as it pertains to a particular issue. The environmental setting provides a point of reference for assessing the environmental impacts of the proposed project and alternatives (Chapter 7). The setting description in each section is followed by an impacts and mitigation discussion. The impact and mitigation portion of each section includes impact statements, which are prefaced by a number in bold-faced type. An explanation of each impact and an analysis of its significance follow each impact statement. All mitigation measures pertinent to each individual impact follow directly after the impact statement. The degree to which the identified mitigation measure(s) would reduce the impact is also described.

ENVIRONMENTAL SETTING

According to Section 15125 of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline condition” against which project-related impacts are compared. The baseline condition is typically the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the proposed project was published November 14, 2012. At the time of the NOP publication, Sutter Memorial Hospital and the associated medical and office uses were in full operation on the Sutter Memorial Hospital site. As explained in the Project Description, these uses will be transferred to the expanded Sutter Medical Center, upon completion of the Women’s and Children’s Hospital. The 2005 Sutter Medical Center Project and the Trinity Cathedral Project Draft EIR analyzed the potential impacts (including those related to transportation, utilities, and public service) of operation of the proposed Women’s and Children’s Hospital. The EIR assumed that Sutter Memorial Hospital would be reused or retrofitted in some fashion, but the reuse was not known and was not evaluated. Therefore, this EIR analyzes the impacts of the proposed project (transportation, services, and utilities) in comparison to the existing uses on the project site.

REGULATORY SETTING

This section of each chapter provides the federal, State, and local regulations that would apply to the proposed project and that could reduce or eliminate potentially significant impacts. The impact analyses assume compliance with these regulations. This section also informs the reader of the applicable City of Sacramento General Plan policies and Community Plan policies, if any.

IMPACTS AND MITIGATION MEASURES

This section analyzes both project-specific and cumulative environmental impacts and the proposed mitigation measures. Information included in this section is described in more detail below.

METHOD OF ANALYSIS

This subsection identifies the methodology used to analyze potential environmental impacts.

STANDARDS OF SIGNIFICANCE

The CEQA Guidelines define a significant effect on the environment as “a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic and aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant” (CEQA Guidelines Section 15382). Definitions of significance vary with the physical conditions affected and the setting in which the change occurs. The CEQA Guidelines set forth physical impacts that trigger the requirement to make “mandatory findings of significance” (CEQA Guidelines, Section 15065). For all environmental issues, this EIR identifies specific standards of significance.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

The project impact and mitigation measure section analyzes the environmental impacts of the project. This subsection describes the potential environmental impacts of the proposed project and, based upon the thresholds of significance, concludes whether the environmental impacts would be considered significant, potentially significant, or less than significant. Each impact is summarized in an “impact statement,” followed by a more detailed discussion of the potential impacts and the significance of each impact before mitigation.

The impact number consists of the section of the EIR in which that impact is identified followed by a “-” to indicate the number of the impact in that section. For example, Impact 5.1-1 is the first impact identified in Section 5.1.

The impact discussion includes a description of applicable regulations and concludes with a statement regarding whether the impact would be less than significant or significant prior to mitigation. If the impact is significant and mitigation is required, the finding of significance after mitigation is also identified.

The analysis of environmental impacts considers both the construction and operational phases associated with implementation of the proposed project. As required by Section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, long-term, on-site, and/or off-site impacts are addressed, as appropriate, for the environmental issue area being analyzed. The draft EIR uses the following terms to describe the level of significance of impacts identified: Significant and Unavoidable Impact (SU), Potentially Significant Impact (PS), Significant Impact (S), and Less-Than-Significant Impact (LS).

An example of the format is shown below.

IMPACT 5.2-X	**Impact Title.** 2-5 sentence impact summary. Therefore, this impact would be **potentially significant**.

Discussion of the impacts of the proposed project is here.

Mitigation Measure 5.2-X: title.

Mitigation text…

For impacts that were found to be potentially significant or significant, feasible mitigation measures that could reduce the severity of the impact are identified. As noted above, it is assumed that the project applicant would also continue to comply with all applicable local, State, and federal laws and regulations. In many instances, the actions that are necessary to reduce a project impact are already required by local, State, or federal law; these laws and regulations are not included as mitigation because compliance is assumed in this EIR. Similarly, established design guidelines or other requirements that the City regularly recognizes and follows for development projects are also considered part of the project description. In this draft EIR, such requirements are identified and considered in the impact assessment *prior to* the identification of additional project-specific mitigation measures that would reduce the level of significance of impacts.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The cumulative context of a specific issue area is defined (e.g., a specific watershed for drainage and hydrology impacts) and the cumulative effects of the project are analyzed to determine if the project's contribution to the cumulative effect or impact are "considerable." If applicable, feasible mitigation measures are also included to reduce the severity of an impact. The Master EIR for the 2030 General Plan provides the basis for analysis of cumulative effects, growth-inducing effects, and irreversible significant effects associated with development under the general plan. In many cases, the cumulative context for the Sutter Park Neighborhood Project is similar to the cumulative context in the City's 2030 General Plan.

5.1 AESTHETICS

This section provides a description of the existing visual character in the Sutter Park Neighborhood area and evaluates changes to those conditions that would result from implementation of the proposed project.

Information used to prepare this section was obtained from a site visit in April 2013 and the Sacramento 2030 General Plan Master Environmental Impact Report, as well as project-specific information included in project materials (PUD Guidelines).

One comment pertaining to lighting and glare was received during public review of the NOP. This comment raised concerns about potential spillover light that could occur in the nearby community during construction activities. This issue is addressed in this section of the Draft EIR.

5.1.1 ENVIRONMENTAL SETTING

REGIONAL

The City of Sacramento is characterized by flat terrain in a predominately built-out environment. The average elevation is 25 feet above sea level. Long-range views within Sacramento are generally expansive because of the flat terrain throughout the City. However, due to the flat terrain, existing mature trees and buildings often block short-range views. Sacramento is located at the confluence of the American and Sacramento Rivers, both of which are primary natural scenic resources of the City. These two rivers are significant physical features which help define the community.

The project site is located within the East Sacramento Community Plan Area which encompasses approximately seven square miles. The Plan Area is bounded on the north by the American River, on the south by the Gold Line Light Rail line and Jackson Highway, on the east by Watt Avenue, and on the west by Alhambra Boulevard. The East Sacramento Community Plan Area is generally built out and is comprised of a connected group of predominantly residential neighborhoods.

LOCAL

The East Sacramento neighborhood is an established, largely-residential neighborhood with sidewalks, well maintained pre-1960s buildings, and mature trees and landscaping (Exhibit 5.1-1). The project site is bordered by single-family homes and a small multi-family apartment complex to the north, single-family homes to the west and south, and single-family homes and a professional and medical offices complex to the east.

The character of the residential neighborhood surrounding the hospital is generally of modest one- and two-story houses of essentially simple ranch or traditional design with some decorative features borrowed from earlier architectural styles. Architectural styles vary: the neighborhood includes Craftsman, Tudor, Mission Revival, and Victorian styles. They are a composite group of mixed smaller houses, mostly built in small groups by individuals and small developers from the late 1930s to 1950. The type of residential uses is mixed with one- and two-story single-family homes, single-family homes that have been converted into multifamily housing, and two-story, multi-unit apartments (see Exhibit 5.1-2).

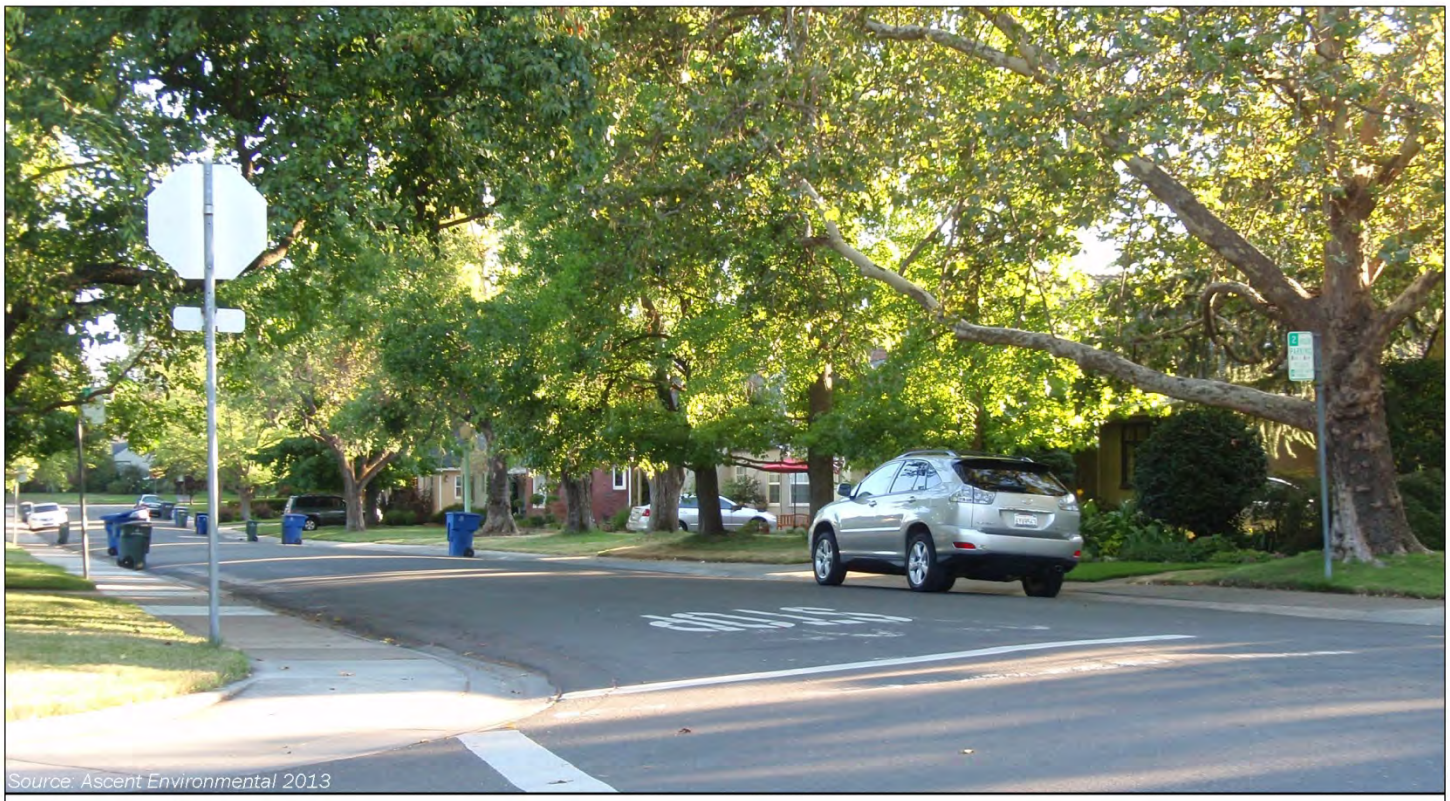


Exhibit 5.1-1 **Local Existing Conditions Looking South Down F Street from 50th Street**

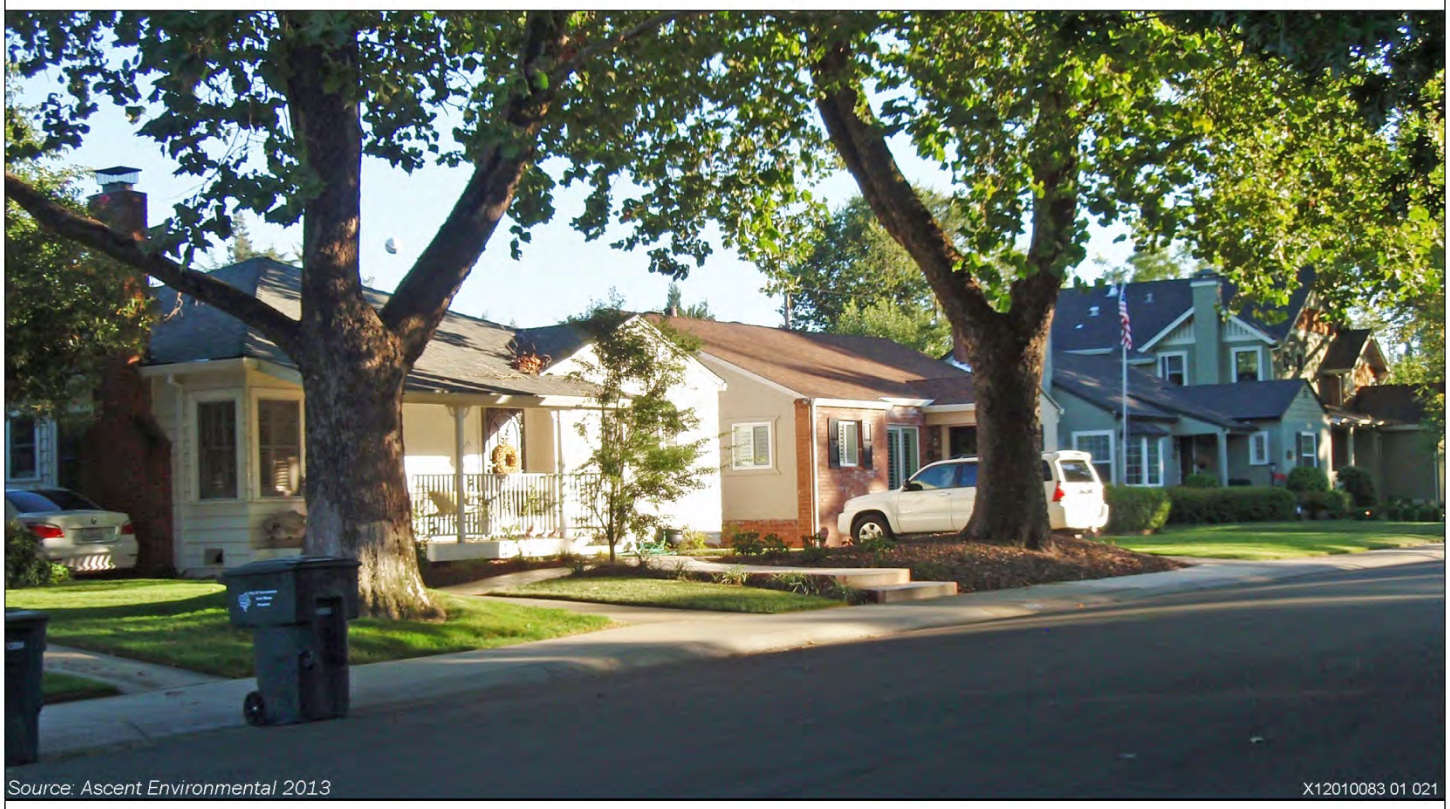


Exhibit 5.1-2 **Local Existing Conditions Looking West Down Pala Way from D Street**

SITE CHARACTERISTICS

The project site is a developed property that contains Sutter Memorial Hospital and its associated offices and related-care facilities. The twelve existing buildings built from 1937 to the mid-1980s are constructed of stucco and concrete, and range from one to seven stories. The Sutter Memorial Hospital site is fully developed with buildings, parking structures, internal walkways and driveways, surface parking lots, and landscaping. The twelve buildings are primarily located in the northwestern and southern portions of the site while the parking lots are located in the northeast portion of the site. There are three driveways, two of which allow public access to Sutter Memorial Hospital from F Street, and one that allows public access from E Street. The site topography is flat and paved.

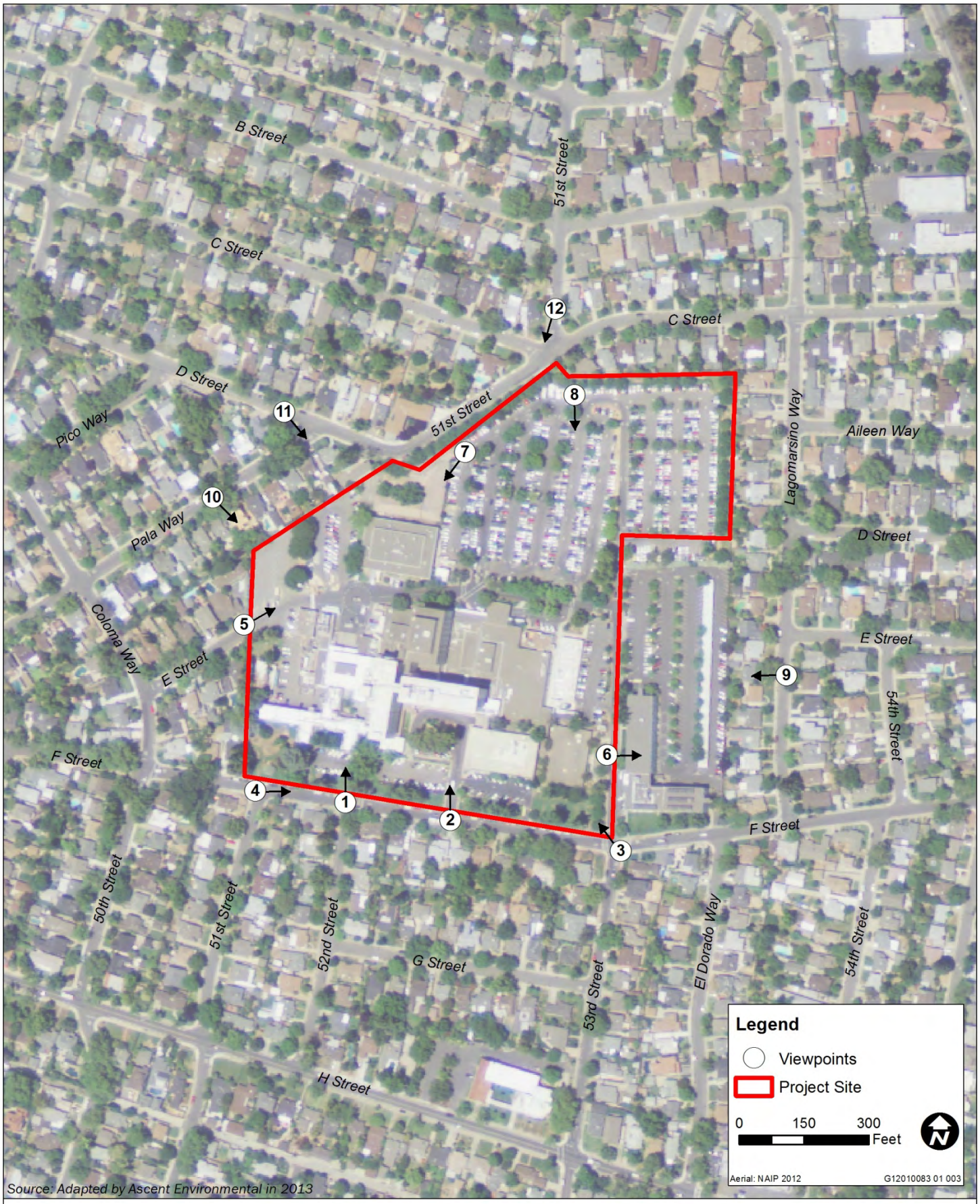
The original Sutter Maternity Hospital was a simple structure, boxlike with a flat roof in the Moderne style, which is characterized by smooth stuccoed wall surfaces, flat roofs, and horizontal grooves or lines in walls which give a horizontal emphasis. The two-story building was constructed of board-formed concrete. It was essentially 'U' shaped with a center east/west portion containing the entrance flanked by two wings extending to the south. Another wing extended to the north from the middle of the center section (see Exhibit 3-3 in Chapter 3, "Project Description," for an aerial view of the site). The southern, eastern, and front portions of the west wing of the original hospital are adjacent to green lawn, trees, and plantings that connects them to the sidewalk and street face. The rear, or northern elevation, of the original hospital is paved and contains a mixture of functional "plant" facilities and boilers, and the concrete block Paint structure.

Short-range views onto the project site vary depending on the viewer's location. The Sutter Memorial Hospital buildings are most visible from the south, on F Street, and views consist of the original Sutter Maternity building, the seven-story main hospital building, and two two-story ancillary buildings. From the north, only the seven-story main hospital building is visible in a few locations because of existing fencing and vegetation. There are no long-range views onto the project site because of existing development.

VIEWS OF THE PROJECT SITE

Exhibit 5.1-3 provides a viewpoint location map of the photos taken at the project site and Exhibits 5.1-4 through 5.1-15 provide photos of the project site. Views of the project site are primarily from F Street. These views are partially screened by pine, oak, cypress, and redwood trees. The view onto the project site from 51st Street is completely blocked by vegetation.

Viewpoint 1 looks north towards Sutter Memorial Hospital from F Street at the corner of 52nd Street and shows the original Maternity Hospital building. Viewpoint 2 looks north from F Street towards one of the driveways, and shows the 7-story main hospital and Registration entrance. Viewpoint 3 looks northwest from the corner of F Street and 53rd Street towards the Emergency Room driveway and shows Building D. Viewpoint 4 looks east down F Street from 51st Street. Viewpoint 5 looks east from E Street towards Sutter Memorial Hospital, from the border between residential and project site, and shows the Plant Operations and Maintenance building. Viewpoint 6 looks east from the project site across the



Source: Adapted by Ascent Environmental in 2013

Exhibit 5.1-3 **Viewpoint Location**

Exhibit 5.1-4 **Viewpoint 1 – Looking north from F Street at the corner of 52nd Street**

Exhibit 5.1-5 **Viewpoint 2 - Looking north from F Street**

Exhibit 5.1-6 **Viewpoint 3 - Looking northwest from the corner of F and 53rd streets**

Exhibit 5.1-7 **Viewpoint 4 - Looking east down F Street from 51st Street**

Exhibit 5.1-8 **Viewpoint 5 - Looking east from E Street**

Exhibit 5.1-9 **Viewpoint 6 - Looking east at the northeast corner of F and 53rd streets**

Exhibit 5.1-10 **Viewpoint 7 - Looking southwest from the northwest corner of the parking lot**

Exhibit 5.1-11 **Viewpoint 8 - Looking south from the most northern part of the parking lot**

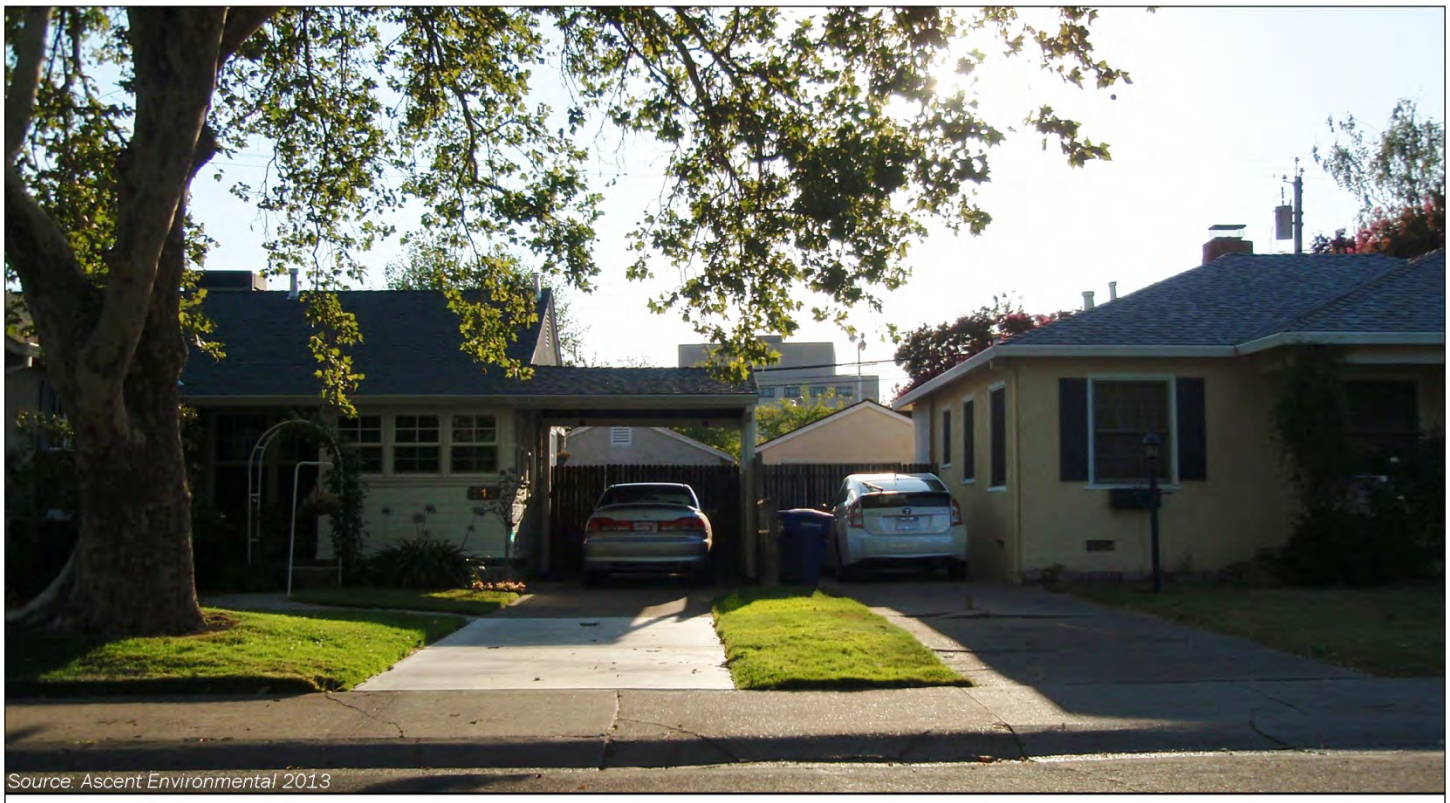


Exhibit 5.1-12 **Viewpoint 9 - Looking west from Lagomarsino Way at E Street**

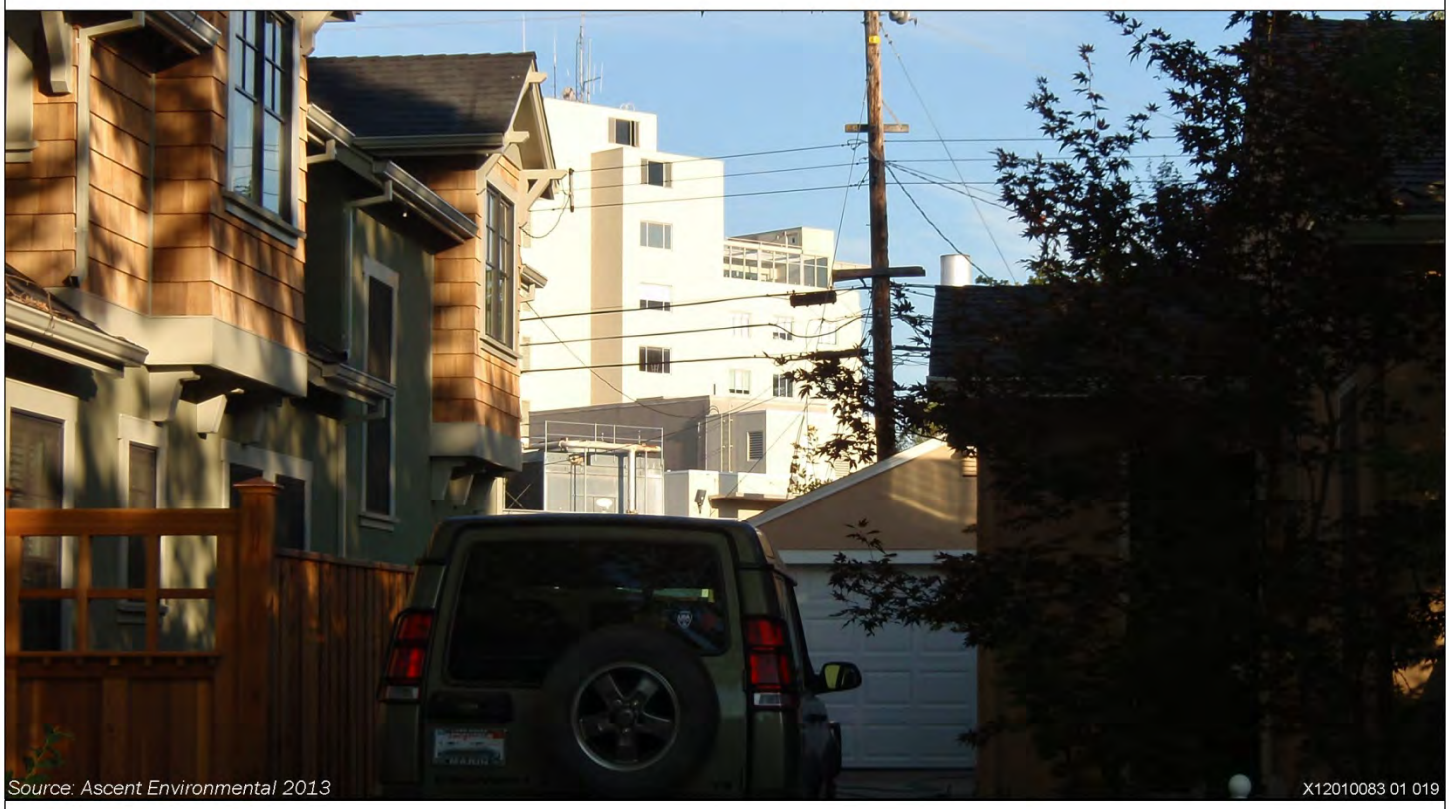


Exhibit 5.1-13 **Viewpoint 10 - Looking southeast from Pala Way**

Exhibit 5.1-14 **Viewpoint 11 - Looking southeast from D Street at Pala Way**

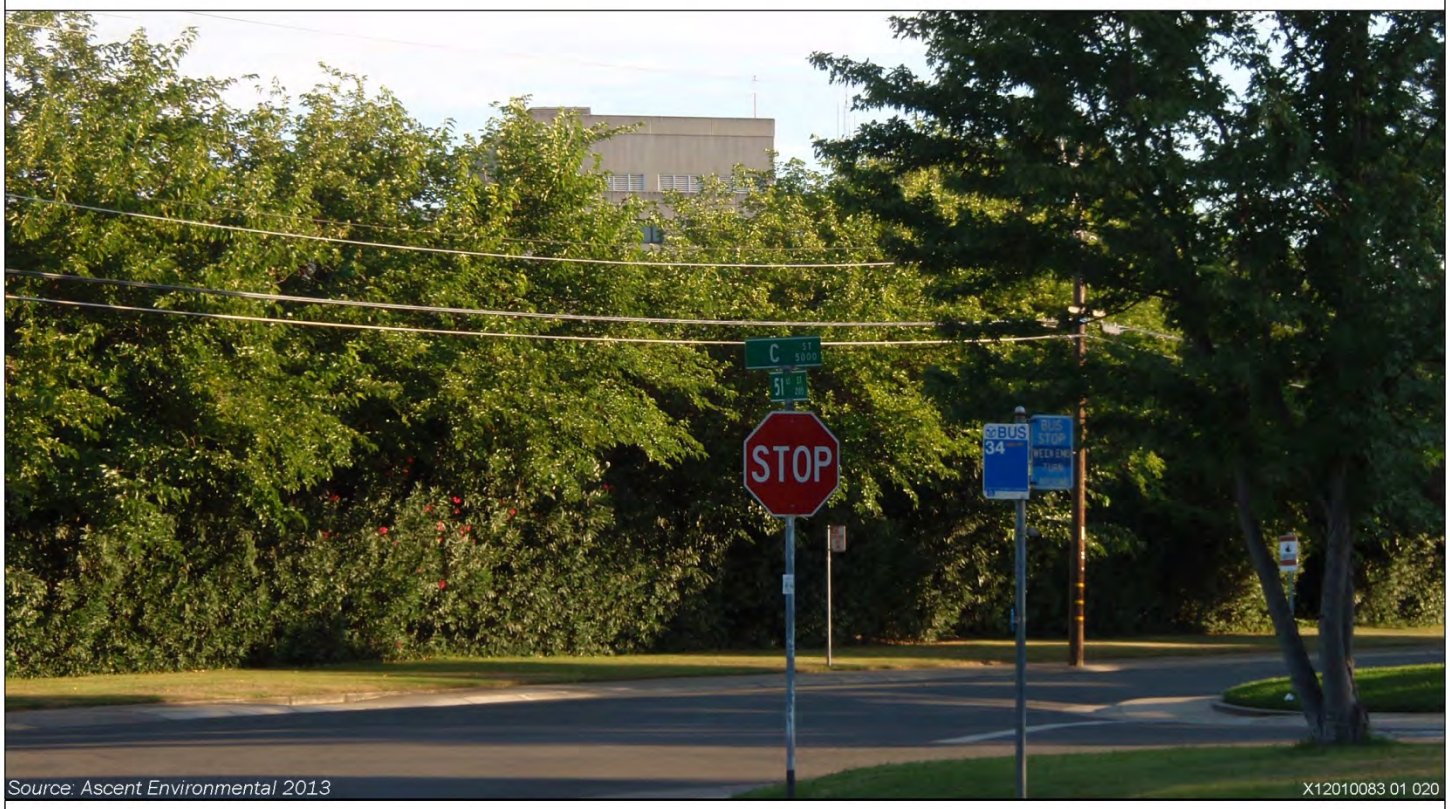


Exhibit 5.1-15 **Viewpoint 12 - Looking southwest from 51st Street at C Street**

Emergency Room driveway towards the medical office building located at the northeast corner of F Street and 53rd Street. Viewpoint 7 looks southwest towards Sutter Memorial Hospital from the northwest corner of the visitor's parking lot. The Sharing Place and Building B can be seen on the right. Viewpoint 8 looks south towards Sutter Memorial Hospital from the most northern part of the visitor's parking lot. Viewpoint 9 looks west from Lagomarsino Way at E Street and shows the top floors of the main hospital. Viewpoint 10 looks southeast from Pala Way towards the rear of Sutter Memorial Hospital. Viewpoint 11 looks southeast from D Street at Pala Way and also shows the rear of Sutter Memorial Hospital. Viewpoint 12 looks southwest from 51st Street at C Street and shows the top floors of the main hospital.

LIGHT AND GLARE

Nighttime lighting is necessary to provide and maintain safe, secure, and attractive environments; however, these lights have the potential to produce spillover light and glare and if designed incorrectly, could be considered unattractive. Light that falls beyond the intended area is referred to as "light trespass." Types of light trespass include spillover light and glare.

Spillover light is light that falls outside the boundaries of the property being lighted. Spillover light can adversely affect light-sensitive uses, such as residential neighborhoods at nighttime. Spillover light can be minimized by using only the level of light necessary, and by using cutoff type fixtures, light covers, or shielded light fixtures, or a combination of fixture types.

Glare results when a light source directly in the field of vision is brighter than the eye can comfortably accept. Squinting or turning away from a light source is an indication of glare. Glare is particularly associated with high light intensity, as measured in candelas, emitted at angles near horizontal (75 to 90 degrees from straight down). Glare can be reduced by design features that block direct line of sight to the light source and that direct light downward, with little or no light emitted at high (near horizontal) angles, since this light would travel long distances. Cutoff-type light fixtures or shielded light fixtures can minimize glare because they emit relatively low intensity light at these angles.

EXISTING LIGHT AND GLARE

Light sources on the project site include building identification signage, directional signage, security lighting, and nighttime lighting from the main hospital building windows. The visitor and staff parking lots are located in the northeast portion of the project site. Parking lot security lighting is mostly concealed from residences along 51st Street, C Street, and Lagomarsino Way by trees within the parking lot.

Light sources in the adjacent residential areas along F, E, and 51st streets include streetlights, headlights from vehicle traffic, porch lighting, and interior lighting from windows.

5.1.2 REGULATORY SETTING

FEDERAL AND STATE

There are no federal or State regulations that are directly applicable to the proposed project regarding aesthetics.

LOCAL

SACRAMENTO CITY CODE

Title 17 of the Sacramento City Code, the Zoning Ordinance, includes aesthetic review mechanisms used by the City to maintain or improve aesthetic qualities within the City. Chapter 17.60 of the Zoning Ordinance, Height and Area Regulations, contains established codes which regulate location, height, and size of buildings or structures, as well as signs, parking, and landscaping.

Planned Unit Development Designation

The Planned Unit Development (PUD) provision, a sub-section of the Zoning Ordinance, encourages the design of well-planned facilities through creative and imaginative planning. The PUD designation is intended to be utilized for large acreage development capable of achieving distinct environmental characteristics.

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to aesthetics within the project area.

Goal ER 7.1: Visual Resource Preservation. Maintain and protect significant visual resources and aesthetics that define Sacramento.

- **Policy ER 7.1.1 Protect and Enhance Scenic Views.** The City shall protect and enhance views from public places to the Sacramento and American rivers, adjacent greenways, landmarks, and urban views of the downtown skyline and the State Capitol along Capitol Mall.
- **Policy ER 7.1.3 Minimize Removal of Existing Resources.** The City shall require new commercial, industrial, and residential development to minimize the removal of mature trees, and other significant visual resources present on the site.
- **Policy ER 7.1.4 Standards for New Development.** The City shall seek to ensure that new development does not significantly impact Sacramento's natural and urban landscapes.
- **Policy ER 7.1.5 Lighting.** The City shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary.
- **Policy ER 7.1.6 Glare.** The City shall require that new development avoid the creation of incompatible glare through development design features.

Goal LU 2.4: City of Distinctive and Memorable Places. Promote community design that produces a distinctive, high-quality built environment whose forms and character reflect Sacramento's unique historic, environmental, and architectural context, and create memorable places that enrich community life.

- **Policy LU 2.4.1 Unique Sense of Place.** The City shall promote quality site, architectural and landscape design that incorporates those qualities and characteristics that make Sacramento desirable and memorable including walkable blocks, distinctive parks and open spaces, tree-lined streets, and varied architectural styles.
- **Policy LU 2.4.2 Responsiveness to Context.** The City shall require building design that respects and responds to the local context, including use of local materials, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.
- **Policy LU 2.4.4 Iconic Buildings.** The City shall encourage the development of iconic public and private buildings in key locations to create new landmarks and focal features that contribute to the city's structure and identity.

Goal LU 2.7: City Form and Structure. Require excellence in the design of the city's form and structure through development standards and clear design direction.

- **Policy LU 2.7.1 Development Regulations.** The City shall promote design excellence by ensuring City development regulations clearly express intended rather than prohibited outcomes and reinforce rather than inhibit quality design.
- **Policy LU 2.7.2 Design Review.** The City shall require design review that focuses on achieving appropriate form and function for new and redevelopment projects to promote creativity, innovation, and design quality.
- **Policy LU 2.7.3 Transitions in Scale.** The City shall require that the scale and massing of new development in higher-density centers and corridors provide appropriate transitions in building height and bulk that are sensitive to the physical and visual character of adjoining neighborhoods that have lower development intensities and building heights.
- **Policy LU 2.7.4 Public Safety and Community Design.** The City shall promote design of neighborhoods, centers, streets, and public spaces that enhances public safety and discourages crime by providing street-fronting uses ("eyes on the street"), adequate lighting and sight lines, and features that cultivate a sense of community 'ownership.'
- **Policy LU 2.7.6 Walkable Blocks.** The City shall require new development and redevelopment projects to create walkable, pedestrian-scaled blocks, publicly-accessible mid-block and alley pedestrian routes where appropriate, and sidewalks appropriately-scaled for the anticipated pedestrian use.
- **Policy LU 2.7.7 Buildings that Engage the Street.** The City shall require buildings to be oriented to and actively engage and complete the public realm through such features as building orientation, build-to and setback lines, façade articulation, ground-floor transparency, and location of parking.

- **Policy LU 2.7.8 Screening of Off-street Parking.** The City shall reduce the visual prominence of parking within the public realm by requiring most off-street parking to be located behind or within structures or otherwise fully or partially screened from public view.

EAST SACRAMENTO DESIGN REVIEW ORDINANCE

The Sacramento City Council approved the Interim East Sacramento Design Review Ordinance, number 2009-010, in April 2007 in an effort to protect the distinctive character of the East Sacramento area. The ordinance puts in place a series of threshold "triggers" that help determine the level of design review for a new or remodeled home. In doing so, the City hopes to avoid any detrimental impact on the unique character of the area in terms of scale and massing of new and remodeled homes. The ordinance was revised in March 2009 to include additional information on setback requirements.

5.1.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

The description of the proposed project site was prepared from a visit to the site in February 2013. The site plan, building elevations, and renderings of the proposed project were used to evaluate the potential effects of project development on the visual character of the project site and the nearby area. The analysis focuses on the change in visual elements on the site and potential changes to views onto and across the project site from project development.

The visual impacts of the proposed project are analyzed in relation to existing conditions, which are built-up urban uses. The perception of a visual impact is personal and subjective: what one person may perceive as a negative impact another may find visually pleasing. Even those experienced in urban design principles and architecture can have differing opinions on the visual “quality” of a particular project.

The visual impacts of the proposed project are analyzed in relation to existing conditions, which are Sutter Memorial Hospital and its associated offices and related-care facilities. The visual effects of construction activities are not evaluated in this section because they would be intermittent and temporary. Chapter 3, “Project Description,” includes a construction schedule for construction of the various project components.

PROJECT FEATURES

The proposed project includes the development of approximately 19 acres of mixed-use residential development. The project would create a neighborhood consisting of a mixture of land uses including single-family, attached, and mixed-use housing, community gardens, parks, and open spaces. The project would include approximately 5,000 square feet of commercial retail, up to 125 residential units, and four parks totaling 1.24 acres (see Exhibit 3-6 in Chapter 3, “Project Description”). The proposed

project would also include the necessary roadway and utilities infrastructure, which would tie into existing off-site infrastructure.

The applicant is proposing Design Guidelines for the Sutter Park Neighborhood Planned Unit Development. The *PUD Design Guidelines* include six principles: promote wellness through “wellness inspired design”; create community; reconnect existing areas; promote sustainable practices; include a mixtures or densities; and foster a distinctive blend of architecture. By introducing a mix of iconic architecture, small neighborhood-serving mixed-use, and a human scale to the massing of buildings, the land uses and design principles are intended to guide the transition of the Sutter Memorial Hospital site into a neighborhood that integrates into the existing grid.

Central Park

The Central Park would be a central feature of the neighborhood and would be approximately 400 feet long and 70 feet wide. Drawing from the history and design of some of Sacramento’s Park Neighborhoods, the concept of a “boulevard” park would be used within the Sutter Park Neighborhood to create a “signature” street, a central recreation amenity, and social gathering place.

Pocket Park

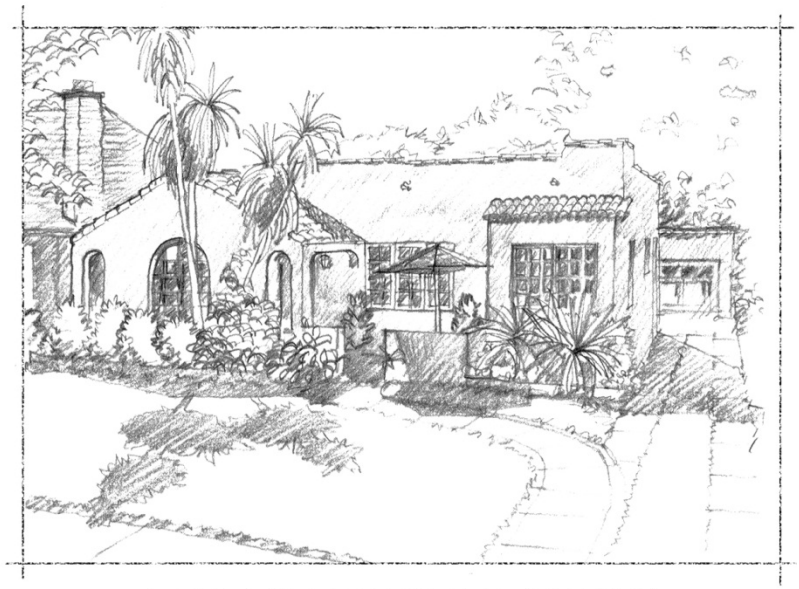
Two pocket parks would be located at each end of Parkway B. A larger pocket park located at the end of Parkway B would provide a green terminus and focal point and a feature for the cluster of homes at the north end of the proposed project.

Garden Paseos

The Garden Paseos would connect the outer streets to the Central Park. The intended design is reminiscent of traditional park neighborhood homes that front on a common green. The paseo would provide passage to other areas of the neighborhood as well as incorporate small seating places.

The Traditional Park Neighborhood Homes

The Traditional Park Neighborhood Homes would include homes designed to present a strong architectural statement and frame the roadway with a stately presence, with a combination of alley-loaded garages, recessed garages, detached garages, and accessory dwelling units above garages. Approximately 55 percent of the new residences would be traditional park neighborhood homes and would be designed in accordance with twelve possible architectural styles: California Ranch, Farmhouse Revival, French Cottage, Monterey, Tudor Revival, Park Bungalow, English Cottage, Park International, Sacramento Prairie, Spanish Eclectic, Tivoli Foursquare Revival, and Italian Renaissance (see examples in Exhibit 5.1-16). The remainder of the homes would be built in one of four Niche Concepts: Garden Homes, Cottage Homes, Row Homes, or residential mixed use style (the Triangle), as described below.

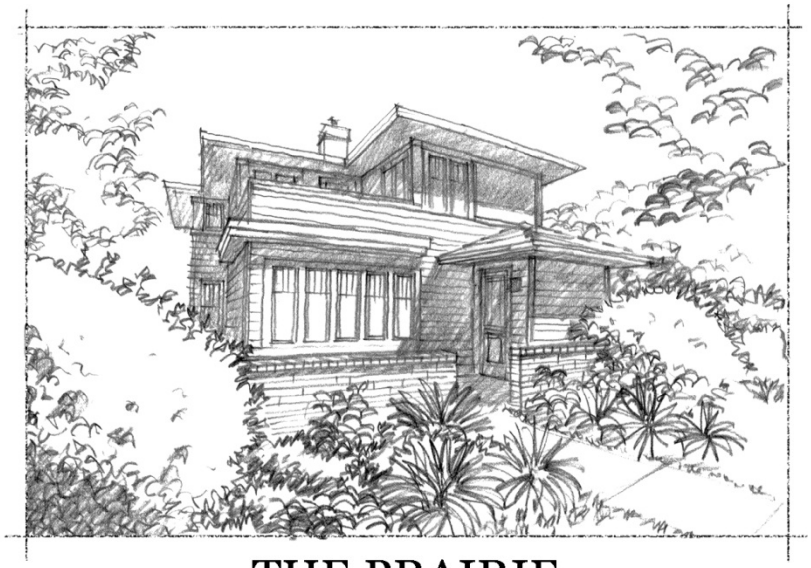


THE SPANISH RANCH

THE ITALIAN RENAISSANCE

THE FRENCH COTTAGE

For Illustrative Purposes Only



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Source: Stonebridge Properties, Sutter Park Neighborhood PUD Guidelines, 2013; Adapted by Ascent Environmental in 2013

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Exhibit 5.1-16 **A Sample of Possible Architectural Styles for Traditional Neighborhood Homes**

The Garden Homes

The Garden Homes would be situated along the Garden Paseos, perpendicular to the Central Park. These homes would provide an opportunity for detached townhome-style homes with a common green spine (see Exhibit 5.1-17).

The Cottage Homes

The Cottage Homes would be located at the northeast junction of F Street and Parkway B and would consist of a cluster of bungalows reminiscent of the Bungalow Courts found interspersed throughout Sacramento's park neighborhoods. These cottages would be arranged around a central green and create a micro-neighborhood within the Sutter Park Neighborhood. The size of the green would be determined during the site design (see Exhibit 5.1-18).

The Row Homes

The Row Homes would be located south of the mixed-use residential and community gardens on D Street. This key location would provide a strong pedestrian relationship to the Central Park via the Garden Paseo (see Exhibit 5.1-19).

The Triangle and Community Gardens

The Triangle mixed-use residential building and community gardens would be located at the junction of D Street and Parkway B. The mixed-use building could include residential lofts above neighborhood-serving uses. The community gardens would be placed at a central location (see Exhibit 5.1-20).

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on aesthetics are considered significant if the proposed project would:

- substantially degrade the existing visual character or quality of the site and its surroundings, or
- create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

ISSUES NOT DISCUSSED FURTHER

California's Scenic Highway Program was created in 1963, and the scenic highway designation serves to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the State's scenic resources. The closest officially designated scenic highway and/or corridor to the project site is State Route 160, located approximately six miles to the southwest along the Sacramento River. Therefore, the proposed project would not obstruct views from any scenic highway or roadway, and the project site is not located within the viewshed of a federal or state scenic highway.

Source: Stonebridge Properties, Sutter Park Neighborhood PUD Guidelines, 2013; Adapted by Ascent Environmental in 2013

Exhibit 5.1-17 **Conceptual Garden Homes Example**

Source: Stonebridge Properties, Sutter Park Neighborhood PUD Guidelines, 2013; Adapted by Ascent Environmental in 2013 X12010083 01 049

Exhibit 5.1-18 **Conceptual Cottage Homes Example**

Source: Stonebridge Properties, Sutter Park Neighborhood PUD Guidelines, 2013; Adapted by Ascent Environmental in 2013

Exhibit 5.1-19 **Conceptual Row Home Examples**

Source: Stonebridge Properties, Sutter Park Neighborhood PUD Guidelines, 2013; Adapted by Ascent Environmental in 2013

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Exhibit 5.1-20 **Conceptual Residential Mixed Use Example**

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.1-1	**Degrade the existing visual character of the site and its surroundings.** Development of the proposed project would replace the existing urban hospital setting with a traditional residential neighborhood. This would not degrade the existing visual character or quality of the site and its surroundings. Therefore, there would be **no impact**.

As described above, the proposed project site is currently characterized by the Sutter Memorial Hospital campus, consisting of twelve buildings that were built from 1937 to the mid-1980s. These buildings were constructed of stucco and concrete and range from one to seven stories. The topography of the site is generally flat and paved. The surrounding East Sacramento neighborhood is an established, largely-residential neighborhood with mature trees and older buildings. The character of this neighborhood is generally of modest one- and two-story houses of essentially simple ranch or traditional design with some decorative features borrowed from earlier architectural styles.

The proposed project would replace the existing urban hospital setting with a traditional residential neighborhood, consistent with the surrounding neighborhood. The proposed project would include the development of approximately 19 acres of mixed-use residential development. The project would create a neighborhood consisting of a mixture of land uses including one- to two-story single-family, attached, and mixed-use housing, community gardens, parks and open spaces. The project would include approximately 5,000 square feet of commercial retail, up to 125 residential units, and 1.24 acres of parkland. The land use plan has been designed to re-integrate the project site within the surrounding established neighborhoods by connecting the street grid and creating housing that will complement and augment the current housing types in the neighborhood.

Demolition and construction on the project site would result in the removal of existing mature trees. The tree inventory completed by ECORP (2013) included a total of 294 trees, thirty-three of which classify as heritage trees as defined under the Sacramento City Code (Section 12.64.020). Impact 5.3-4 in Section 5.3, Biological Resources, discusses compliance with the City's Tree Preservation Ordinance. To the extent feasible, existing trees would be preserved. The project applicant would develop guidelines to identify trees that could remain onsite, based on such elements as the building footprint and the health of the selected trees. The guidelines would also include potential construction strategies to minimize potential effects to the dripline of existing trees that would remain. The proposed project includes landscaping and tree-planting that would mature over time to replace the existing trees. Chapter 4, Landscape Design, of the PUD Guidelines addresses the primary landscape features in the Sutter Park Neighborhood project with guidelines that require planting historical varieties of shrubs and fruit trees and selecting plants for scale, color, and texture. The guidelines also direct that landscape design provide effective screening of parking areas, retaining walls, utility enclosures, utility cabinets, service areas, or service corridors to reduce negative visual impacts.

The proposed project would not degrade the existing visual character or quality of the project site, but rather would improve the aesthetic value of the neighborhood by eliminating the urban multi-story hospital and providing a mixed-use infill development at a scale and design that would be visually

consistent with the surrounding neighborhood. Therefore, there would be **no impact** to the existing visual character of the site and its surroundings.

Mitigation Measure 5.1-1

No mitigation is required.

IMPACT 5.1-2	**Create a new source of substantial light or glare.** The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. Therefore, this impact would be **less than significant**.

Glare is caused by light reflections from pavement, vehicles, and building materials, such as reflective glass and polished surfaces. During daylight hours, the amount of glare depends on the intensity and direction of sunlight. Glare can create hazards to motorists and nuisances for pedestrians and other viewers. At night, artificial lighting can cause glare or disturb residents.

The project site is fully developed and contains Sutter Memorial Hospital and its associated offices and related-care facilities. Lighting currently consists of building identification signage, directional signage, lighting in the parking lots, security lighting, and nighttime lighting from the main hospital building windows. Although there would be no nighttime construction, nighttime security lighting may be required. This lighting would be part of the final demolition and construction plan that would be subject to City review and approval, and the lighting would likely be lower in intensity than the current lighting on the site because it would be located at a similar or lower elevation throughout the site. The proposed project would include street lighting, landscape lighting for parks and pedestrian paths, residential porch lighting, and lighting for the mixed-use area, including lighting for parking, is applicable. The change from the current use to a mixed-used development would not increase the amount of light and glare on the project site. Chapter 4, Landscape Design, of the PUD Guidelines addresses the design and quality of the proposed lighting in the Sutter Park Neighborhood project with the following guidelines:

- fixture styles and colors would be compatible with the architectural elements of the neighborhood and the color of light poles and fixtures would be consistent throughout the community;
- lighting would be designed and located to minimize ambient light levels throughout the neighborhood, while maintaining consistency with public safety standards;
- ornamental pedestrian-scale fixtures would be used as much as possible and could include full cutoff fixtures and low-angle spotlights;
- lighting would be designed to minimize glare and the direct view of light sources. No lighting would blink, flash, or be of unusually high intensity or brightness;
- light would be generated by efficient light sources to save energy and minimize operating costs;
- parking lot lights for the Triangle mixed-use residential would be no higher than necessary to provide efficient lighting of the area, and would not exceed 20 feet for large parking lots, including the base;
- building-mounted fixtures would be prohibited unless the light source is completely shielded from view;
- lighting would be from environmentally friendly solutions, which limit light pollution or the disposal of harmful wastes; and

- backyard improvements that would extend above 6 feet, including plantings, structures, and lighting (freestanding, building-mounted, etc.), would be required to be submitted to the Sutter Park Neighborhood Design Review Committee for review and approval.

General Plan Policy ER 7.1.6 requires that new development avoid creating unsafe and incompatible glare by incorporating design features to reduce or eliminate glare. The East Sacramento area surrounding the project site was established decades ago and is dominated by mature trees that provide a wide tree canopy over streets lined with single- and two-story homes. The areas where homes dominate the viewshed are generally areas with more green space, less artificial light meaning darker nighttime views, and less glare due to the limited amount of reflective materials. The proposed project would replace an existing source of light. Adverse light and glare impacts would not occur as a result of the project, resulting in a **less-than-significant** impact.

Mitigation Measure 5.1-2

No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.1-3	**Cumulative effect on aesthetics.** The proposed project, in combination with other development in East Sacramento, would not cause a substantial adverse change in the visual character of East Sacramento. The proposed project would replace the existing urban hospital setting with a traditional residential neighborhood, consistent with the surrounding neighborhood and would not increase the amount of light or glare. Therefore, the proposed project **would not contribute to a cumulative effect** on aesthetics.

The cumulative context for aesthetics effects would be future development in the East Sacramento Community Plan area. As discussed above, the East Sacramento neighborhood is predominately built out with connected residential neighborhoods, and neighborhood commercial uses. The project site is currently occupied by Sutter Memorial Hospital and its associated offices and related-care facilities. The site is fully developed with buildings, parking structures, internal walkways and driveways, surface parking lots, landscaping, and is not considered a scenic vista or scenic resource. The proposed project would include the demolition of the hospital and would reintroduce mixed-residential uses, consistent with the surrounding neighborhood.

The project's contribution to cumulative changes in the visual character of the area is not cumulatively considerable because the proposed project would not have a demonstrable negative aesthetic effect or substantially degrade the visual character or quality of the site and would not increase the amount of light and glare on the project site. Further, the proposed project and future development would be subject to review by the City; therefore, this is considered a **less-than-significant cumulative impact.**

Mitigation Measure 5.1-3

No mitigation is required.

5.2 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential short-term and long-term air quality impacts caused by the proposed project. The method of analysis for short-term construction, long-term regional (operational), local mobile-source, and toxic air emissions is consistent with the recommendations of the Sacramento Metropolitan Air Quality Management District (SMAQMD).

Several comments received in response to the Notice of Preparation were related to air quality. Dust and vehicle-generated air pollution associated with demolition and construction were the primary issues of concern. These issues are addressed in this section.

5.2.1 ENVIRONMENTAL SETTING

EXISTING

The project site is located in the city of Sacramento, within Sacramento County, California, which is within the Sacramento Valley Air Basin (SVAB). The SVAB also includes all of Butte, Colusa, Glenn, Shasta, Sutter, Tehama, Yolo, and Yuba Counties; the western portion of Placer County; and the eastern portion of Solano County. The ambient concentrations of air pollutant emissions are determined by the amount of emissions released by the sources of air pollutants and the atmosphere's ability to transport and dilute such emissions. Natural factors that affect transport and dilution include terrain, wind, atmospheric stability, and sunlight. Therefore, existing air quality conditions in the area are determined by such natural factors as topography, meteorology, and climate, in addition to the amount of emissions released by existing air pollutant sources, as discussed separately below. The nearest sensitive receptors in the vicinity of the project site are residences in the residential neighborhood located adjacent to and near the site (see Chapter 3, "Project Description").

TOPOGRAPHY, METEOROLOGY, AND CLIMATE

The SVAB is a relatively flat area bordered by the north Coast Ranges to the west and the northern Sierra Nevada to the east. Air flows into the SVAB through the Carquinez Strait, the only breach in the western mountain barrier, and moves across the Sacramento–San Joaquin Delta (Delta) from the San Francisco Bay area.

The Mediterranean climate type of the SVAB is characterized by hot, dry summers and cool, rainy winters. During the summer, daily temperatures range from 50 degrees Fahrenheit (°F) to more than 100°F. The inland location and surrounding mountains shelter the area from much of the ocean breezes that keep the coastal regions moderate in temperature. Most precipitation in the area results from air masses that move in from the Pacific Ocean, usually from the west or northwest, during the winter months. More than half the total annual precipitation falls during the winter rainy season (November through February); the average winter temperature is a moderate 49°F. Also characteristic

of SVAB winters are periods of dense and persistent low-level fog, which are most prevalent between storms. The prevailing winds are moderate in speed and vary from moisture-laden breezes from the south to dry land flows from the north.

The mountains surrounding the SVAB create a barrier to airflow, which leads to the entrapment of air pollutants when meteorological conditions are unfavorable for transport and dilution. Poor air movement is most frequent in the fall and winter when high-pressure cells are present over the SVAB. The lack of surface wind during these periods, combined with the reduced vertical flow caused by a decline in surface heating, reduces the influx of air and leads to the concentration of air pollutants under stable metrological conditions. Surface concentrations of air pollutant emissions are highest when these conditions occur in combination with agricultural burning activities or with temperature inversions, which hamper dispersion by creating a ceiling over the area and trapping air pollutants near the ground.

May through October is ozone season in the SVAB. This period is characterized by poor air movement in the mornings with the arrival of the Delta sea breeze from the southwest in the afternoons. In addition, longer daylight hours provide a plentiful amount of sunlight to fuel photochemical reactions between reactive organic gases (ROG) and oxides of nitrogen (NO_X), which result in ozone formation. Typically, the Delta breeze transports air pollutants northward out of the SVAB; however, a phenomenon known as the Schultz Eddy prevents this from occurring during approximately half of the time from July to September. The Schultz Eddy phenomenon causes the wind to shift southward and blow air pollutants back into the SVAB. This phenomenon exacerbates the concentration of air pollutant emissions in the area and contributes to the area violating the ambient-air quality standards.

The local meteorology of the project site and surrounding area is represented by measurements recorded at the Sacramento station. The normal annual precipitation is approximately 17 inches. January temperatures range from a normal minimum of 38°F to a normal maximum of 53°F. July temperatures range from a normal minimum of 58°F to a normal maximum of 93°F (WRCC 2013a). The predominant wind direction and speed is from the south at 8 miles per hour (WRCC 2013a, 2013b).

EXISTING AIR QUALITY

CRITERIA AIR POLLUTANTS

Concentrations of emissions from criteria air pollutants (the most prevalent air pollutants known to be harmful to human health) are used to indicate the quality of the ambient air. A brief description of key criteria air pollutants in the SVAB is provided below. Emission source types and health effects are summarized in Table 5.2-1. Monitoring data applicable to the project site is provided in Table 5.2-2.

Ozone

Ozone is a photochemical oxidant (a substance whose oxygen combines chemically with another substance in the presence of sunlight) and the primary component of smog. Ozone is not directly emitted into the air but is formed through complex chemical reactions between precursor emissions of ROG and NO_X in the presence of sunlight. ROG are volatile organic compounds that are photochemically reactive. ROG emissions result primarily from incomplete combustion and the

evaporation of chemical solvents and fuels. NO_X are a group of gaseous compounds of nitrogen and oxygen that result from the combustion of fuels.

Emissions of the ozone precursors ROG and NO_X in the SVAB have decreased over the past several years because of more stringent motor vehicle standards and cleaner burning fuels. During the last 20 years the maximum amount of ROG and NO_X over an 8-hour period decreased by 17 percent. However, even with these decreases, ozone levels still exceed State and Federal air quality standards, and ozone levels in the SVAB still rank among the highest in the state (California Air Resources Board [ARB] 2009).

Table 5.2-1 Sources and Health Effects of Criteria Air Pollutants

Pollutant	Sources	Acute[1] Health Effects	Chronic[2] Health Effects
Ozone	Secondary pollutant resulting from reaction of ROG and NO_X in presence of sunlight. ROG emissions result from incomplete combustion and evaporation of chemical solvents and fuels; NO_X results from the combustion of fuels	increased respiration and pulmonary resistance; cough, pain, shortness of breath, lung inflammation	permeability of respiratory epithelia, possibility of permanent lung impairment
Carbon monoxide (CO)	Incomplete combustion of fuels; motor vehicle exhaust	headache, dizziness, fatigue, nausea, vomiting, death	permanent heart and brain damage
Nitrogen dioxide (NO_2)	combustion devices; e.g., boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines	coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis or pulmonary edema; breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, death	chronic bronchitis, decreased lung function
Sulfur dioxide (SO_2)	coal and oil combustion, steel mills, refineries, and pulp and paper mills	Irritation of upper respiratory tract, increased asthma symptoms	Insufficient evidence linking SO_2 exposure to chronic health impacts
Respirable particulate matter (PM_{10}), Fine particulate matter ($PM_{2.5}$)	fugitive dust, soot, smoke, mobile and stationary sources, construction, fires and natural windblown dust, and formation in the atmosphere by condensation and/or transformation of SO_2 and ROG	breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases, premature death	alterations to the immune system, carcinogenesis
Lead	metal processing	reproductive/developmental effects (fetuses and children)	numerous effects including neurological, endocrine, and cardiovascular effects

Notes: NO_X = oxides of nitrogen; ROG = reactive organic gases.
[1] "Acute" refers to effects of short-term exposures to criteria air pollutants, usually at fairly high concentrations.
[2] "Chronic" refers to effects of long-term exposures to criteria air pollutants, usually at lower, ambient concentrations.
Sources: U.S. Environmental Protection Act (EPA) 2011.

Nitrogen Oxide

Nitrogen dioxide (NO_2) is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO_2 are combustion devices, such as boilers, gas turbines, and mobile and stationary reciprocating internal combustion engines. Combustion devices emit primarily nitric oxide (NO), which reacts through oxidation in the atmosphere to form NO_2. The combined emissions of NO and NO_2 are referred to as NO_X and are reported as equivalent NO_2. Because NO_2 is formed and depleted by reactions associated with photochemical smog (ozone), the NO_2 concentration in a particular geographical area may not be representative of the local sources of NO_X emissions (EPA 2012).

Particulate Matter

Respirable particulate matter with an aerodynamic diameter of 10 micrometers or less is referred to as PM_{10}. PM_{10} consists of particulate matter emitted directly into the air, such as fugitive dust, soot, and smoke from mobile and stationary sources, construction operations, fires and natural windblown dust, and particulate matter formed in the atmosphere by reaction of gaseous precursors (ARB 2009). PM_{10} emissions in the SVAB are dominated by emissions from area sources, primarily fugitive dust from vehicle travel on unpaved and paved roads, farming operations, construction and demolition, and particles from residential fuel combustion. Fine particulate matter ($PM_{2.5}$) includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. Direct emissions of PM_{10} have increased slightly over the last 20 years, and are projected to continue. $PM_{2.5}$ emissions have remained relatively steady over the last 20 years and are projected to increase slightly through 2020. Emissions of $PM_{2.5}$ in the SVAB are dominated by the same sources as emissions of PM_{10} (ARB 2009).

Monitoring Station Data and Attainment Area Designations

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. The Sacramento–T Street station is located approximately three miles to the west/southwest and is the closest monitoring station to the project site with recent data for ozone, PM_{10}, and $PM_{2.5}$. In general, the local ambient air quality measurements from this station is representative of the air quality near the project given its similar meteorological conditions and urban surroundings. Table 5.2-2 summarizes the air quality data for the three most recent calendar years for which data is available.

Both ARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants. The purpose of these designations is to identify those areas with air quality problems and thereby initiate planning efforts for improvement. The three basic designation categories are “nonattainment,” “attainment,” and “unclassified.” “Unclassified” is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. In addition, the California designations include a subcategory of the nonattainment designation, called “nonattainment-transitional.” The nonattainment-transitional designation is given to nonattainment areas that are progressing and nearing attainment. Attainment designations for the year 2011 in Sacramento County are shown in Table 5.2-3 for each criteria air pollutant.

Table 5.2-2 Summary of Annual Data on Local Ambient Air Quality (2009-2011)[1]

	2009	2010	2011
OZONE			
Maximum concentration (1-hr/8-hr avg, ppm)	0.102/0.089	0.092/0.074	0.100/0.087
Number of days state standard exceeded (1-hr/8-hr)	3/13	0/1	1/5
Number of days national standard exceeded (8-hr)	4	0	1
FINE PARTICULATE MATTER ($PM_{2.5}$)			
Maximum concentration (µg/m^3)	50.1	37.0	50.5
Number of days national standard exceeded (calculated[2])	3.0	0.0	18.4
RESPIRABLE PARTICULATE MATTER (PM_{10})			
Maximum concentration (µg/m^3)	50.7	53.9	42.2
Number of days state standard exceeded (calculated[2])	6.0	6.1	0.0
Number of days national standard exceeded (calculated[2])	0	0	0

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million
1 Measurements from the Sacramento–T Street station.
2 Measured days are those days that an actual measurement was greater than the level of the state daily standard or the national daily standard. Measurements are typically collected every 6 days. 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.
* There was insufficient data to determine the value.
Source: ARB 2013a

Table 5.2-3 Ambient Air Quality Standards and Designations for Sacramento County

Pollutant	Averaging Time	California		National Standards[1]	
		Standards[2,3]	Attainment Status[4]	Primary[3]	Attainment Status[6]
Ozone	1-hour	0.09 ppm (180 µg/m^3)	N (Serious)	–	N
	8-hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)	
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	A	35 ppm (40 mg/m^3)	U/A
	8-hour	9 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)	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)	A	0.053 ppm (100 µg/m^3)	U/A
	1-hour	0.18 ppm (339 µg/m^3)		0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	–	A	0.030 ppm (80 µg/m^3)	U
	24-hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3)	
	3-hour	–		0.5 ppm (1300 µg/m^3)[5]	

Table 5.2-3 Ambient Air Quality Standards and Designations for Sacramento County

Pollutant	Averaging Time	California		National Standards [1]	
		Standards [2,3]	Attainment Status [4]	Primary [3]	Attainment Status [6]
	1-hour	0.25 ppm (655 µg/m^3)		0.075 ppm	
Respirable Particulate Matter (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	N	–	N
	24-hour	50 µg/m^3		150 µg/m^3	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 µg/m^3	N	12 µg/m^3	N
	24-hour	–		35 µg/m^3	
Lead [7]	30-day Average	1.5 µg/m^3	A	–	–
	Calendar Quarter	–		1.5 µg/m^3	U/A
	Rolling 3-Month Avg	–		0.15 µg/m^3	U/A
Sulfates	24-hour	25 µg/m^3	A	No National Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m^3)	U		
Vinyl Chloride [7]	24-hour	0.01 ppm (26 µg/m^3)	U/A		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 mi or more	U		

Notes: µg/m^3 = micrograms per cubic meter; ppm = parts per million

[1] National standards (other than ozone, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. The PM_{10} 24-hour standard is attained when 99percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. The $PM_{2.5}$ 24-hour standard is attained when 98 percent of the daily concentrations, averaged over 3 years, are equal to or less than the standard. Contact the EPA for further clarification and current federal policies.

[2] California standards for ozone, CO (except Lake Tahoe), SO_2 (1- and 24-hour), NO_2, PM, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[3] Concentration expressed first in units in which it was promulgated [i.e., parts per million (ppm) or micrograms per cubic meter (µg/m^3)]. 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] Unclassified (U): a pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
Attainment (A): a pollutant is designated attainment if the state standard for that pollutant was not violated at any site in the area during a 3-year period.
Nonattainment (N): a pollutant is designated nonattainment if there was a least one violation of a state standard for that pollutant in the area. Non-attainment designations for ozone are classified as marginal, serious, severe, or extreme depending on the magnitude of the highest 8-Hour ozone design value at a monitoring site in a non-attainment area.
Nonattainment/Transitional (NT): is a subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the standard for that pollutant.

[5] Secondary Standard

[6] Nonattainment (N): any area that does not meet (or that contributes to ambient air quality in a nearby area that does not meet) the national primary or secondary ambient air quality standard for the pollutant.
Attainment (A): any area that meets the national primary or secondary ambient air quality standard for the pollutant.
Unclassifiable (U): any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.
Maintenance (M): any area previously designated nonattainment pursuant to the CAAA of 1990 and subsequently redesignated to attainment subject to the requirement to develop a maintenance plan under Section 175A of the CAA, as amended.

[7] ARB has identified lead and vinyl chloride as toxic air contaminants with no threshold 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.

Source: ARB 2013b, 2013d

EMISSIONS INVENTORY

Exhibit 5.2-1 summarizes emissions of criteria air pollutants within Sacramento County for various source categories in 2008 (the most current data available). According to Sacramento County's emissions inventory, mobile sources are the largest contributor to the estimated annual average for air pollutant levels of ROG and NO_X, accounting for approximately 58 percent and 91 percent respectively, of the total emissions. Area-wide sources (i.e., sources that occur over a large area rather than at a point source [e.g., smoke stack] or mobile-source [e.g., tailpipe]) account for approximately 89 percent and 73 percent of the county's PM_{10} and $PM_{2.5}$ emissions, respectively (ARB 2008).

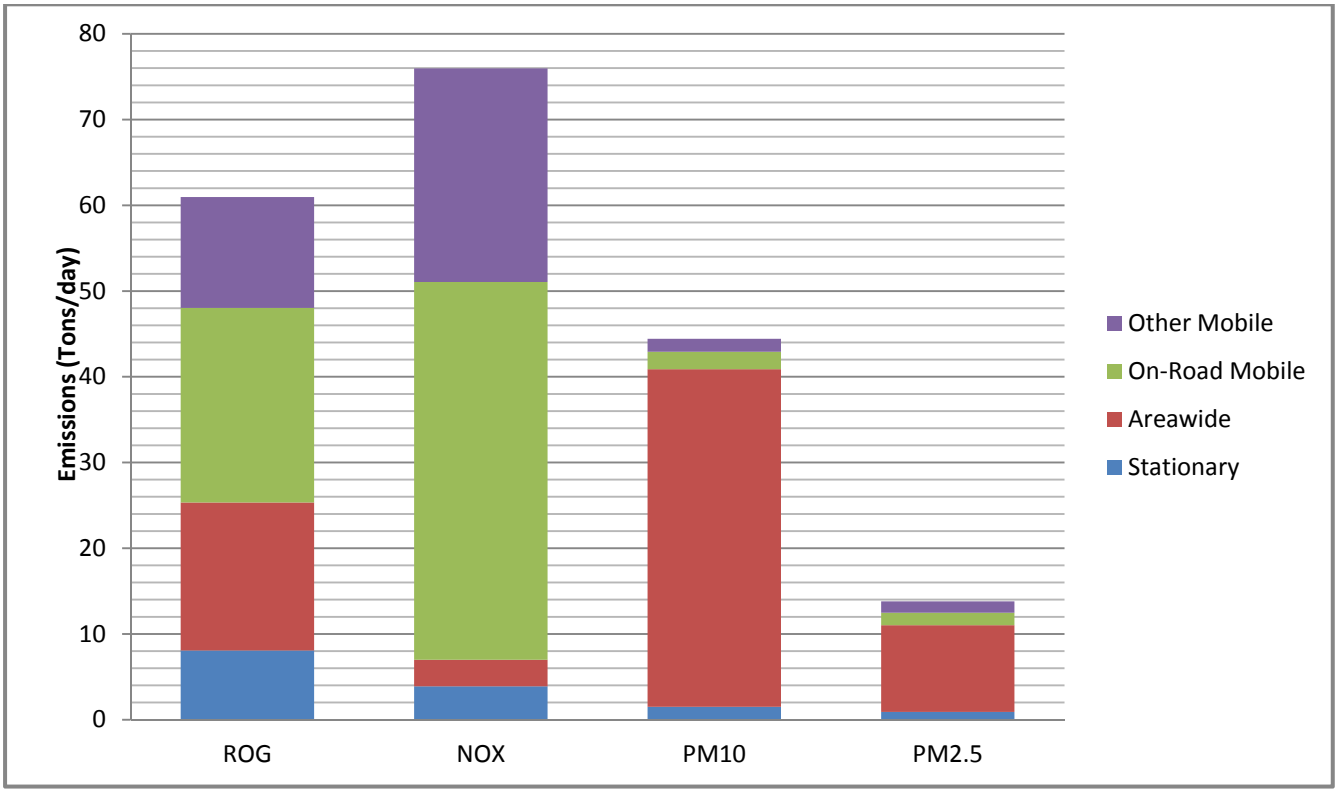


Exhibit 5.2-1 **Sacramento County 2008 Emissions Inventory**

TOXIC AIR CONTAMINANTS

Concentrations of toxic air contaminants (TACs) are also used to indicate the quality of ambient air. A TAC is defined as an air pollutant that may cause or contribute to an increase in mortality or in serious illness, or that may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air; however, their high toxicity or health risk may pose a threat to public health even at low concentrations.

According to the California Almanac of Emissions and Air Quality (ARB 2009), the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important

being particulate matter from diesel exhaust (diesel PM). Diesel PM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances. Although diesel PM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emissions control system is being used. Unlike the other TACs, no ambient monitoring data are available for diesel PM because no routine measurement method currently exists. However, ARB has made preliminary concentration estimates based on a PM exposure method. This method uses the ARB emissions inventory's PM_{10} database, ambient PM_{10} monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs that pose the greatest existing ambient risk in California, for which data are available, are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene. Sources of these TACs vary considerably and include (but are not limited to) consumer products, gasoline dispensing stations, auto repair and auto body coating shops, dry cleaning establishments, chrome plating and anodizing shops, welding operations, and other stationary sources.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, ARB estimated its health risk to be 360 excess cancer cases per million people in the SVAB in the year 2000. Since 1990, the health risk associated with diesel PM has been reduced by 52percent. Overall, levels of most TACs, except para-dichlorobenzene and formaldehyde, have decreased since 1990 (ARB 2009).

According to ARB Air Toxics "Hot Spots" Program (see Regulatory Setting below), existing facilities that emit toxic substances above a specified level are required to prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. Facilities that meet these criteria in the vicinity of the proposed project site include East Lawn Memorial Park, located at 4300 Folsom Boulevard; and Mercy General Hospital, located at 4001 J Street (ARB 2013c). Minor sources of TACs near the project could include, but are not limited to: gasoline dispensing stations, dry cleaning establishments, printing operations, and auto body coating operations. Major highways and roadways are also considered sources of TAC emissions, associated with the presence of diesel PM emissions from vehicle exhaust. Capital City Freeway (I-80 Business Route) is located approximately two miles northwest of the proposed project site, and U.S. Highway 50 is located approximately 1.5 miles to the south. These roadways have annual average daily traffic volumes of 159,000 vehicles per day and 190,000 vehicles per day, respectively (Caltrans 2012). Existing residences in the western and southern portions of East Sacramento are located near these freeways.

ODORS

Odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and is subjective. Some individuals have the ability to smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; an odor that is offensive to one person may be acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

5.2.2 REGULATORY SETTING

As stated previously, the proposed project site is located in the SVAB. Air quality at the proposed project site is regulated by the EPA, ARB, SMAQMD, and the City of Sacramento (City). Each of these agencies develops rules, regulations, policies, and/or goals to comply with applicable legislation. Although EPA regulations may not be superseded, both state and local regulations may be more stringent.

Concentrations of several air pollutants—ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead—indicate the quality of ambient air and are therefore the premise of air quality regulations. Because these pollutants are the most prevalent air pollutants known to be harmful to human health, they are commonly referred to as “criteria air pollutants.” Their effects on human health have been studied in depth and their criteria for affecting health have been documented. Acceptable levels of exposure to criteria air pollutants have been determined and ambient standards have been established for them (see Table 5.2-3).

Air quality regulations also focus on TACs (also known as hazardous air pollutants (HAPs) in federal regulations). In general, for those TACs that may cause cancer, all concentrations present some risk. In other words, there is no threshold level below which adverse health impacts may not be expected to occur. EPA and ARB regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology for toxics (MACT and BACT) to limit emissions. These statutes and regulations, in conjunction with additional rules set forth by SMAQMD, establish the regulatory framework for TACs.

Applicable regulations associated with criteria air pollutants, TACs, and odors are described below.

FEDERAL

At the federal level, EPA implements the national air quality programs. EPA's air quality mandates are drawn primarily from the Federal Clean Air Act (CAA), enacted in 1970. The most recent major amendments were made by Congress in 1990.

The CAA requires EPA to establish national ambient air quality standards (NAAQS). As shown in Table 5.4-3, EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead (ARB 2013d). The primary standards protect public health and the secondary standards protect public welfare. The CAA also requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The Federal Clean Air Act Amendments of 1990 (CAAA) added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is modified periodically to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. EPA reviews all state SIPs to determine whether they conform to the mandates of the CAA and its amendments and whether implementing them will achieve air quality goals. If EPA determines a SIP to be inadequate, a Federal Implementation Plan that imposes additional control measures may be prepared for the nonattainment area. If the state fails to submit an approvable SIP or to implement the plan within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basins.

HAZARDOUS AIR POLLUTANTS

EPA has programs for identifying and regulating HAPs. Title III of the CAAA directed EPA to issue national emissions standards for HAPs (NESHAP). The NESHAP may be different for major sources than for area sources of HAPs. Major sources are defined as stationary sources with the potential to emit more than 10 tons per year (TPY) of any HAP or more than 25 TPY of any combination of HAPs; all other sources are considered area sources. The emissions standards were issued in two phases. In the first phase (1992–2000), EPA developed technology-based emission standards designed to produce the maximum emission reduction achievable and are generally referred to as requiring MACT. For area sources, the standards may be different, based on generally available control technology. In the second phase (2001–2008), EPA was required to issue emissions standards based on health risks where the standards are deemed necessary to address risks remaining after implementation of the technology-based NESHAP standards.

The CAAA also requires EPA to issue vehicle or fuel standards containing reasonable requirements that control toxic emissions, at a minimum for benzene and formaldehyde. Performance criteria were established to limit mobile-source emissions of toxics, including benzene, formaldehyde, and 1,3-butadiene. In addition, Section 219 requires the use of reformulated gasoline in selected areas with the most severe ozone nonattainment conditions to further reduce mobile-source emissions.

STATE

CRITERIA AIR POLLUTANTS

ARB coordinates and oversees the state and local programs for controlling air pollution in California and implements the California Clean Air Act (CCAA), adopted in 1988. The CCAA requires ARB to establish California ambient air quality standards (CAAQS) (Table 5.2-3) (ARB 2013d). ARB has established CAAQS for sulfates, hydrogen sulfide, vinyl chloride, visibility-reducing particulate matter, and the above-mentioned criteria air pollutants. In most cases the CAAQS are more stringent than the NAAQS. Differences in the standards are generally explained by the health effects studies considered during the standard-setting process and the interpretation of the studies. In addition, the CAAQS incorporate a margin of safety to protect sensitive individuals.

The CCAA requires that all local air districts in the state endeavor to achieve and maintain the CAAQS by the earliest practical date. The act specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The act provides districts with the authority to regulate indirect sources.

ARB also oversees local air district compliance with federal and state laws, approving local air quality plans, submitting SIPs to EPA, monitoring air quality, determining and updating area designations and maps, and setting emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels.

TOXIC AIR CONTAMINANTS

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807 [Statutes of 1983]) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588 [Statutes of 1987]). AB 1807 sets forth a formal procedure for ARB to designate substances as TACs. This process includes research, public participation, and scientific peer review before ARB can designate a substance as a TAC. ARB has identified more than 21 TACs to date and has adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the ARB list of TACs.

Once a TAC is identified, ARB then adopts an airborne toxics control measure for sources that emit that particular TAC. If a safe threshold exists for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there no safe threshold exists, the measure must incorporate BACT to minimize emissions.

The Hot Spots Act requires that existing facilities that emit toxic substances above a specified level prepare an inventory of toxic emissions, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures.

ARB has adopted diesel exhaust control measures and more stringent emissions standards for various transportation-related mobile sources of emissions, including transit buses, and off-road diesel equipment (e.g., tractors, generators). Recent and upcoming milestones for transportation-related

mobile sources include a low-sulfur diesel fuel requirement and tighter emissions standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide. Over time, the replacement of older vehicles will result in a vehicle fleet that produces substantially lower levels of TACs than under current conditions. Mobile-source emissions of TACs (e.g., benzene, 1,3-butadiene, diesel PM) have been reduced significantly over the last decade and will be reduced further in California through a progression of regulatory measures (e.g., Low Emission Vehicle/Clean Fuels and Phase II reformulated gasoline regulations) and control technologies. With implementation of ARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 75percent less than the estimated year-2000 level in 2010 and 85 percent less in 2020. Adopted regulations are also expected to continue to reduce formaldehyde emissions from cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

ARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (ARB 2005) provides guidance concerning land use compatibility with TAC sources. While not a law or adopted policy, the handbook offers advisory recommendations for the siting of sensitive receptors near uses associated with TACs, such as freeways and high-traffic roads, commercial distribution centers, rail yards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities, to help keep children and other sensitive populations out of harm's way.

LOCAL

CRITERIA AIR POLLUTANTS

Sacramento Metropolitan Air Quality Management District

SMAQMD attains and maintains air quality conditions in Sacramento County through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SMAQMD includes the preparation of plans and programs for the attainment of ambient-air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. SMAQMD also inspects stationary sources, responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements other programs and regulations required by the CAA, CAAA, and CCAA.

SMAQMD released a revision to its previously adopted guidelines document in June 2013. This revised *CEQA Guide to Air Quality Assessment* (SMAQMD 2013a) is an advisory document that provides lead agencies, consultants, and project applicants with uniform procedures for addressing air quality in environmental documents. The handbook contains the following applicable components:

- criteria and thresholds for determining whether a project may have a significant adverse impact on air quality;
- specific procedures and modeling protocols for quantifying and analyzing impacts on air quality;
- methods available to mitigate impacts on air quality; and
- information for use in air quality assessments that will be updated more frequently, such as air quality data, regulatory setting, climate, and topography.

All projects are subject to SMAQMD rules and regulations in effect at the time of construction. Specific rules applicable to the construction of the proposed project may include the following:

- **Rule 201**: General Permit Requirements. Any project that includes the use of equipment capable of releasing emissions to the atmosphere may be required to obtain permit(s) from SMAQMD before equipment operation. The applicant, developer, or operator of a project that includes an emergency generator, boiler, or heater should contact SMAQMD early to determine whether a permit is required, and to begin the permit application process. Portable construction equipment (e.g., generators, compressors, pile drivers, and lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or ARB portable equipment registration.
- **Rule 402**: Nuisance. A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause or have natural tendency to cause injury or damage to business or property.
- **Rule 403**: Fugitive Dust. The developer or contractor is required to control dust emissions from earthmoving activities or any other construction activity to prevent airborne dust from leaving the project site.
- **Rule 417**: Wood Burning Appliances. Installation of any new, permanently installed, indoor or outdoor, uncontrolled fireplaces in new or existing developments is prohibited.
- **Rule 442**: Architectural Coatings. The developer or contractor is required to use coatings that comply with the content limits for volatile organic compounds specified in the rule.
- **Rule 902**: Asbestos. The developer or contractor is required to notify SMAQMD of any regulated renovation or demolition activity. Rule 902 contains specific requirements for surveying, notification, removal, and disposal of material containing asbestos prior to demolition.

In addition, effective as of October 10, 2005, if modeled construction-generated NO_x emissions for a project are not reduced to SMAQMD's threshold of significance (85 pounds per day [lb/day]) after the standard construction mitigation is applied, then an off-site construction mitigation fee is recommended. The fee must be paid before a grading permit can be issued. This fee is used by SMAQMD to purchase off-site emissions reductions. Such purchases are made through SMAQMD's Heavy Duty Incentive Program, through which select owners of heavy-duty equipment in Sacramento County can repower or retrofit their old engines with cleaner engines or technologies.

Air Quality Plans

SMAQMD, in coordination with the air quality management districts and air pollution control districts of El Dorado, Placer, Solano, Sutter, and Yolo Counties, prepared and submitted the *1991 Air Quality Attainment Plan* (AQAP). The plan complies with the requirements set forth in the CCAA, which specifically addressed the nonattainment status for ozone and, to a lesser extent, CO and PM_{10}. The CCAA also requires a triennial assessment of the extent of air quality improvements and emission reductions achieved through the use of control measures. As part of the assessment, the attainment

plan must be reviewed and, if necessary, revised to correct for deficiencies in progress and to incorporate new data or projections.

The requirement of the CCAA for a first triennial progress report and revision of the 1991 AQAP was fulfilled with the preparation and adoption of the *1994 Ozone Attainment Plan* (OAP). The OAP stresses attainment of ozone standards and focuses on strategies for reducing emissions of ozone precursors (ROG and NO_X). It promotes active public involvement, enforcement of compliance with SMAQMD rules and regulations, public education in public and private sectors, development and promotion of transportation and land use programs designed to reduce vehicle miles traveled (VMT) within the region, and implementation of stationary- and mobile-source control measures.

The OAP became part of the SIP in accordance with the requirements of the CAAA and amended the 1991 AQAP. However, at that time the region could not show that the national ozone (1-hour) standard would be met by 1999. In exchange for moving the deadline to 2005, the region accepted a designation of “severe nonattainment” coupled with additional emission requirements on stationary sources. Additional triennial reports were also prepared in 1997, 2000, 2003, and 2009 in compliance with the CCAA; these reports act as incremental updates.

In 2004, the Sacramento region was designated nonattainment for the 1997 8-hour ozone NAAQS, and classified as a “serious” area with an attainment deadline of June 15, 2013. Since the Sacramento region needs to rely on the longer term emission reduction strategies from state and federal mobile-source control programs, it was determined that the 2013 attainment date could not be met. Consequently, on February 14, 2008, ARB, on behalf of the air districts in the Sacramento region, submitted a letter to EPA requesting a voluntary reclassification (bump-up) of the Sacramento Federal Nonattainment Area from a “serious” to a “severe” 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019, and additional mandatory requirements. On May 5, 2010 EPA approved the request effective June 4, 2010 (SMAQMD 2013b).

In March 2008, EPA strengthened its 8-hour ozone standard. This change lowered the standard for ambient ozone from 0.08 ppm averaged over 8 hours to 0.75 ppm averaged over 8 hours. On January 6, 2010, EPA proposed to reconsider the 2008 NAAQS for ground-level ozone. The proposed revisions are based on a re-evaluation of the scientific evidence about ozone and its effects on people and the environment. The ozone standards set in 2008 were not as protective as recommended by EPA’s panel of science advisors, the Clean Air Scientific Advisory Committee (CASAC). The proposed standards are consistent with CASAC’s recommendations. EPA is proposing to strengthen the 8-hour “primary” ozone standard, designed to protect public health, to a level within the range of 0.060-0.070 ppm (SMAQMD 2013c).

City of Sacramento 2030 General Plan

Specific policies in the 2030 General Plan that would pertain to criteria air pollutant emissions from new development include (City of Sacramento 2009):

- **Policy ER 6.1.2:** New Development. The City shall review proposed development projects to ensure projects incorporate feasible measures that reduce construction and operational emissions for ROG, NO_X, and particulate matter (PM_{10} and $PM_{2.5}$) through project design.
- **Policy ER 6.1.3:** Emissions Reduction. The City shall require development projects that exceed the SMAQMD ROG and NO_X operational thresholds to incorporate design or operational features that reduce emissions equal to 15 percent from the level that would be produced by an unmitigated project.
- **Policy ER 6.1.14:** Zero-Emission and Low-Emission Vehicle Use. The City shall encourage the use of zero-emission vehicles, low-emission vehicles, and car-sharing programs by requiring sufficient and convenient infrastructure and parking facilities in residential developments and employment centers to accommodate these vehicles.

Toxic Air Contaminants

Sacramento Metropolitan Air Quality Management District

At the local level, air pollution control or management districts may adopt and enforce ARB control measures. Under SMAQMD Rule 201 ("General Permit Requirements"), Rule 202 ("New Source Review"), and Rule 207 ("Federal Operating Permit"), all sources that possess the potential to emit TACs are required to obtain permits from the district. Permits may be granted to these operations if they are constructed and operated in accordance with applicable regulations, including new-source-review standards and air-toxics control measures. SMAQMD limits emissions and public exposure to TACs through a number of programs. SMAQMD prioritizes TAC-emitting stationary sources based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. Sensitive receptors are people, or facilities that generally house people (e.g., schools, hospitals, residences), that may experience adverse effects from unhealthful concentrations of air pollutants.

City of Sacramento 2030 General Plan

The 2030 General Plan includes the following policy related to TACs (City of Sacramento 2009):

- **Policy ER 6.1.6:** Sensitive Uses. The City shall require new development with sensitive uses located adjacent to mobile and stationary TACs be designed with consideration of site and building orientation, location of trees, and incorporation of appropriate technology for improved air quality (i.e., ventilation and filtration) to lessen any potential health risks. In addition, the City shall require preparation of a health risk assessment, if recommended by SMAQMD, to identify health issues, reduce exposure to sensitive receptors, and/or to implement alternative approached to development that reduces exposure to TAC sources.

Odors

Although offensive odors rarely cause any physical harm, they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and SMAQMD. SMAQMD's Rule 402 (Nuisance) regulates odorous emissions.

Sacramento City Code

Chapter 8.116 of the Sacramento City Code places limitations on engine idling and the operation of transport refrigeration units (TRUs) in order to achieve emission reductions. The code limits idling of certain on-road vehicles and off-road vehicles and equipment to no more than five minutes, either consecutively or in aggregate periods, within a 1-hour period. The code also places similar limits on the operation of TRU's, and includes notification and record-keeping requirements on all subject vehicle, equipment and TRU owners. Exemptions from the limitations are specified for various situations.

East Sacramento Community Plan

There are no applicable air quality policies in the East Sacramento Community Plan.

5.2.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

This section describes the project's construction-related (short-term) and operation-related (long-term) effects on air quality. The discussion includes the criteria for determining the level of significance of the effects and a description of the methods and assumptions used to conduct the analysis.

METHOD OF ANALYSIS

Short-term construction-related and long-term operation-related air quality (regional and local) impacts, as well as impacts from TACs and odors, were assessed in accordance with SMAQMD-recommended methodologies (SMAQMD 2013a).

DEMOLITION AND CONSTRUCTION

Short-term emissions of criteria air pollutants (e.g., PM_{10} and $PM_{2.5}$) and ozone precursors (e.g., ROG and NO_X) generated by project demolition and construction were assessed in accordance with SMAQMD-recommended methods. Where quantification was required, these emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2011.1 computer program as summarized in Table 5.4-4. CalEEMod is designed to model both construction and operational emissions for land use development projects and allows for the input of project-specific information. Project-specific data, such as a conceptual demolition work plan, construction equipment types, and schedule, were provided by the project applicant. As discussed in the Project Description (see Chapter 3), the demolition work plan is a conceptual plan. While actual project demolition may follow a different plan, it is reasonable to expect that the demolition and construction techniques would be similar to those outlined in the conceptual plan. Project-generated emissions were modeled based on information provided in the Project Description and SMAQMD-recommended and default model settings to estimate reasonable worst-case conditions. According to SMAQMD, short-term ROG emissions generated by construction should be modeled; however, SMAQMD has not established a threshold to determine the significance of such emissions. Thus, in accordance with SMAQMD-recommended methodologies, short-term ROG emissions generated by construction were modeled for informational purposes only. SMAQMD bases this approach on the fact that ROG emissions attributable to construction equipment

exhaust are low and those from the application of architectural coatings are regulated by Rule 442 (SMAQMD 2013a).

OPERATION

Project-generated, operational regional area- and mobile-source emissions of criteria air pollutants and ozone precursors were also modeled using the CalEEMod Version 2011.1 computer program as summarized in Table 5.4-5. CalEEMod allows land use selections that include project location specifics and trip generation rates. CalEEMod accounts for area-source emissions from the use of natural gas, landscape maintenance equipment, and consumer products and from mobile-source emissions associated with vehicle trip generation. Project-generated emissions were modeled based on general information provided in the Project Description and trip generation from the transportation analysis prepared for this project (see Section 5.8, “Transportation and Traffic,” in this Draft EIR). Project operations were assumed in the first full year following completion of construction, or 2017.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to air quality would be considered significant if the project would:

- conflict with or obstruct implementation of an applicable air quality plan;
- result in short-term (construction) emissions of NO_X above 85 lb/day;
- result in long-term (operational) emissions of NO_X or ROG above 65 lb/day;
- violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- result in PM_{10} concentrations equal to or greater than five percent of the state ambient air quality standard (i.e., 50 micrograms/cubic meter for 24 hours) in areas where there is evidence of existing or projected violations of this standard. Further, the SMAQMD holds that if project/plan emissions of NO_X and ROG are below the emission thresholds given above, then the project/plan would not threaten violations of the PM_{10} ambient air quality standards;
- result in CO concentrations that exceed the 1-hour state ambient air quality standard (i.e., 20.0 ppm) or the 8-hour state ambient standard (i.e., 9.0 ppm);
- result in the exposure of sensitive receptors to substantial pollutant concentrations;
- result in TAC exposures that would create a risk of 10 in 1 million for stationary sources, or substantially increase the risk of exposure to TACs for mobile sources; or
- result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under an applicable federal or state ambient air quality standard (including the release of emissions that exceed quantitative thresholds for ozone precursors)

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.2-1	**Short-term construction-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$.** Short-term construction-generated emissions would not exceed SMAQMD's significance threshold for NO_X and, thus, would not be expected to contribute to pollutant concentrations that exceed the NAAQS or CAAQS. Therefore, this impact would be **less than significant**.

Construction emissions are described as "short term" or temporary in duration. Construction-related activities would result in project-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$ (a subset of PM_{10}) from demolition of the existing Sutter Memorial Hospital, site preparation (e.g., excavation, grading, and vegetation clearing), heavy off-road equipment, material delivery, worker commute vehicle travel to and from the site, trenching and asphalt paving, project construction, application of architectural coatings, and other related activities. Fugitive dust emissions are associated primarily with site preparation and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance, VMT both on- and off-site, and other factors. Ozone precursor emissions of ROG and NO_X are associated primarily with construction equipment exhaust and the application of architectural coatings.

For the purposes of this analysis, construction was assumed to take place over three years (2014–2016), commencing in August 2014 in accordance with the conceptual demolition work plan and overall construction phasing plan noted in the Project Description. The demolition phase of the project may include on-site crushing and reuse of concrete and other paved materials, and construction emissions modeling included estimates for the demolition phase both with and without onsite crushing and material reuse. Please see Appendix C for model input and output parameters, detailed assumptions, and daily construction emissions estimates. Construction emissions are summarized in Table 5.2-4.

Based on the modeling, construction of the proposed project would result in maximum daily emissions of approximately 45 lb/day of ROG, 82 lb/day of NO_X, 32 lb/day of PM_{10} and 6 lb/day of $PM_{2.5}$. As discussed above, SMAQMD has not established an evaluation threshold for construction-generated ROG emissions because those attributable to construction equipment exhaust are low and those from the application of architectural coatings are regulated by Rule 442.

In addition, SMAQMD has developed screening levels to assist in the evaluation of construction-generated PM_{10} emissions (SMAQMD 2013a). According to those levels, PM_{10} emissions from projects that would actively disturb less than 15 acres per day during construction and that would implement SMAQMD's basic construction emission control practices are considered to fall below the standard of significance for PM_{10}. The maximum daily disturbed acreage for the proposed project would be approximately 4.84 acres (i.e., 25 percent of the total 19.36-acre project site).

Table 5.2-4 Summary of Modeled Short-Term Construction-Generated Emissions for the Proposed Project

Source	ROG (lb/day)	NO_X (lb/day)	PM_{10} (lb/day)	$PM_{2.5}$ (lb/day)
Year 2014				
Demolition[1]	11	82	32	4
Maximum lb/day	11	82	32	4
Year 2015				
Demolition[1]	11	81	13	4
Grading	6	49	9	6
Trenching and Paving	8	48	4	4
Building Construction[2]	43	42	4	3
Maximum lb/day	43	81	13	6
Year 2016				
Building and Park Construction[2]	45	53	5	4
Maximum lb/day	45	53	5	4
Maximum lb/day for all phases, unmitigated	45	82	32	6
SMAQMD significance criteria	-	85	AAQS	AAQS

Notes:
lb/day = pounds per day; NO_X = oxides of nitrogen; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District.
[1] All modeled emissions represent worst-case conditions .On-site crushing and reuse of concrete during the demolition phase would be considered the worst-case scenario for air quality, compared to off-site hauling and off-site crushing.
[2] Assumes concurrent vertical building construction (incl. architectural coatings) and park construction.
See Appendix C for CalEEMod modeling results.
Source: Data modeled by Ascent Environmental 2013.

The following dust control measures for project demolition and construction are based on the Basic Construction Emission Control Practices (SMAQMD 2013a) and are incorporated into the Project Description:

- Water or stabilize all exposed surfaces two times daily or as needed. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas staging areas, and access roads.
- Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered or maintain at least two feet of free board.
- Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day or as needed Use of dry power sweeping is prohibited.
- Limit vehicle speeds on unpaved roads to 15 miles per hour (mph).
- All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible where feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

- Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [required by California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site.
- Maintain all construction equipment in proper working condition according to manufacturer's specifications. Prior to the beginning of the job, the equipment must be checked by a certified mechanic and determined to be running in proper condition.

Thus, fewer than 15 acres would be disturbed on any given day and the required basic construction emission control measures would be incorporated into the project. Therefore, PM_{10} emissions generated by construction would be below the standard of significance. In addition, daily unmitigated emissions of the ozone precursor NO_X would not exceed SMAQMD's standard of significance of 85 lb/day. Therefore, it is not anticipated that the project would substantially contribute to ozone concentrations that exceed the NAAQS or CAAQS, and this impact would be **less than significant**.

Mitigation Measure 5.2-1

No mitigation is required.

IMPACT 5.2-2	**Generation of long-term operational (regional) emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$.** Implementation of the proposed project would not result in long-term operational emissions of ROG, NO_X, PM_{10}, or $PM_{2.5}$ that exceed SMAQMD's thresholds of significance (65 lb/day for ROG and NO_X) or substantially contribute to concentrations that exceed the NAAQS or CAAQS. Therefore, impacts related to these long-term operational (regional) emissions would be **less than significant**.

The project site currently contains Sutter Memorial Hospital and associated medical facilities. Long-term operation of the proposed project would result in regional emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ (a subset of PM_{10}) from area and mobile sources, as discussed in detail below.

Project-generated, regional area- and mobile-source emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ were modeled using the CalEEMod computer program. This modeling was based on proposed land use types and sizes as described in Chapter 3, "Project Description," trip generation data from Section 5.8 "Transportation and Traffic," and SMAQMD-recommended and default CalEEMod model settings.

Table 5.2-5 summarizes both the modeled project-generated, operation-related emissions for criteria air pollutants and ozone precursors under project buildout conditions in 2017, along with emissions associated with existing baseline conditions (current operation of Sutter Memorial Hospital (see Section 5.0, Introduction to the Analysis, for a discussion of the baseline conditions).

As shown in Table 5.2-5, operation-related activities from the proposed project in 2017 would result in maximum daily emissions of approximately 18 lb/day of ROG, 19 lb/day of NO_X, 18 lb/day of PM_{10} and 1 lb/day of $PM_{2.5}$. These emissions would be considerably less than the maximum daily emissions under the current operations of the existing Sutter Memorial Hospital and would be below the

SMAQMD's thresholds of significance of 65 lb/day for both ROG and NO_X. Because emissions from the proposed the project would be less than baseline conditions, and would also fall below the SMAQMD's thresholds, the proposed project would not violate any applicable Air Quality Plan. Therefore, the impact generated by operational emissions from the proposed project would be **less than significant**.

Table 5.2-5 Summary of Modeled Baseline and Operational Project Emissions of Criteria Air Pollutants and Precursors

Source	Emissions (lb/day)			
	ROG	NO_X	PM_{10}[1]	$PM_{2.5}$[1]
Existing Baseline Operations (Sutter Memorial Hospital)				
Area sources	13	0.00	0.00	0.00
Energy sources	1	12	<1	<1
Mobile sources	48	92	65	5
Total Baseline Operational Emissions	63	104	66	6
Project Operations (2017)				
Area sources	7	<1	<1	<1
Energy sources	<1	<1	<1	<1
Mobile sources[2]	10	17	18	1
Total Project Operational Emissions	**18**	**19**	**18**	**1**
SMAQMD significance criteria	**65**	**65**	**None**	

Notes: NO_X = oxides of nitrogen; PM_{10} = respirable particulate matter with an aerodynamic diameter of 10 micrometers or less; $PM_{2.5}$ = fine particulate matter with an aerodynamic diameter of 2.5 micrometers or less ($PM_{2.5}$ is a subset of PM_{10}); ROG = reactive organic gases; SMAQMD = Sacramento Metropolitan Air Quality Management District; lb/day = pounds per day. Due to rounding, totals may not add up completely.
[1] SMAQMD has not identified a mass emissions threshold for PM_{10} or $PM_{2.5}$ exhaust emissions. Such emissions levels are shown here for informational purposes only.
[2] The proposed project would result in approximately 4,205 fewer daily vehicle trips than the existing baseline conditions (Kittleson Associates 2013).
Refer to Appendix C for detailed assumptions and modeling output files.
Source: Data modeled by Ascent Environmental in 2011.

Mitigation Measure 5.2-2

No mitigation is required.

IMPACT 5.2-3 **Generation of local mobile-source CO emissions.** Operation of the proposed project would not result in or substantially contribute to CO concentrations that exceed the California 1-hour ambient-air quality standard of 20 ppm or the 8-hour standard of 9 ppm. This impact would be **less than significant**.

CO concentration is a direct function of vehicle idling time and, thus, traffic flow conditions. Under specific meteorological conditions, CO concentrations near congested roadways and/or intersections may reach unhealthy levels with respect to local sensitive land-uses such as residential areas, schools, and hospitals.

Local mobile-source CO concentrations were assessed using a screening-level procedure provided by SMAQMD applicable to the project area. SMAQMD's screening methodology uses the following screening criteria (SMAQMD 2013a):

First Tier

The proposed project would result in a less-than-significant impact to air quality for local CO if:

- traffic generated by the proposed project would not result in deterioration of intersection level of service (LOS) to LOS E or F; or
- the project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

According to traffic modeling results, the proposed project would contribute vehicle trips to a number of nearby intersections. However, all of the intersections analyzed in the traffic modeling for the proposed project are currently operating at LOS A, and would remain at LOS A under existing conditions plus project (see Section 5.8, Transportation and Traffic). Thus, implementation of the proposed project would not result in, or contribute to, local CO concentrations that exceed the California 1-hour or 8-hour ambient-air quality standards of 20 ppm or 9 ppm, respectively. This impact would be **less than significant**.

Mitigation Measure 5.2-3

No mitigation is required.

IMPACT 5.2-4	**Exposure of sensitive receptors to toxic air contaminant (TAC) emissions.** Neither the short-term construction nor the long-term operation of the proposed project would result in the exposure of sensitive receptors to excessive TAC emissions that exceed SMAQMD's significance threshold. Therefore, impacts related to exposure of sensitive receptors to TACs would be **less than significant**.

The exposure of sensitive receptors (e.g., existing and future offsite residents) to TAC emissions from construction, mobile, stationary, and other sources are discussed separately below. The nearest sensitive receptors to the project site are residences located adjacent to and near the site. The predominant wind direction in the project vicinity is from the south/southwest.

Short-Term Construction

Diesel Particulate Matter Exhaust

Construction of the proposed project would result in short-term diesel exhaust emissions from onsite heavy duty equipment required for demolition of the existing hospital, site grading, trenching, paving, and other construction activities. Particulate-exhaust emissions from diesel-fueled engines (diesel PM) were identified as a TAC by ARB in 1998. SMAQMD has not established a quantitative threshold of significance for construction-related TAC emissions but recommends that lead agencies address this

issue on a case-by-case basis, taking into consideration the specific construction-related characteristics of each project and its proximity to offsite receptors (SMAQMD 2013a).

The dose to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 70-year exposure period; however, for construction, use of mobilized equipment would be temporary (i.e., only constituting 3 percent of the total health-risk exposure period). The primary construction activities in which TAC emissions from heavy equipment would be generated include the demolition of the hospital buildings, as well as site grading, trenching and paving.

Implementation of the Basic Construction Emission Control Practices noted above (see page 5.2-17) are expected to reduce diesel PM exhaust emissions in addition to criteria air pollutant emissions. These factors, in combination with the dispersive properties of diesel PM (Zhu et al. 2002), would not result in the exposure of sensitive receptors to TAC levels that would result in a health hazard or exceed applicable standards.

Demolition of Asbestos-Containing Materials

Demolition of the existing hospital could potentially disturb asbestos-containing materials (see detailed discussion in Section 5.6 of this EIR). The potential disturbance of asbestos-containing materials during demolition could expose people to airborne asbestos, which is classified as a TAC. However, demolition of existing buildings and structures would be subject to SMAQMD Rule 902, which is intended to limit asbestos emissions from demolition or renovation of structures. All asbestos-containing material found on the site must be removed prior to demolition or renovation activity in accordance with District Rule 902, which ensures that asbestos-containing materials would be disposed of appropriately and safely. By complying with District Rule 902, thereby minimizing the release of airborne asbestos emissions, demolition activity would not result in a significant impact to air quality (SMAQMD 2013a).

Land Use Compatibility

ARB developed the *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) (ARB 2005), which provides guidance concerning land use compatibility with sources of TAC emissions. The handbook offers recommendations for the siting of sensitive receptors near uses associated with TACs such as freeways and high-traffic roads, commercial-distribution centers, railyards, ports, refineries, dry cleaners, gasoline stations, and industrial facilities. While the handbook is advisory and not regulatory, it offers the following recommendations that may be pertinent to the proposed project:

- Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads carrying 100,000 vehicles per day, or rural roads carrying 50,000 vehicles per day.
- Avoid siting new sensitive land uses within 300 feet of any dry cleaning operation.

- Avoid siting new sensitive land uses within 300 feet of a large gasoline dispensing facility (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50 foot separation is recommended for typical gas dispensing facilities.

Implementation of the proposed project would result in the location of new residences on the project site. However, there are no major stationary or mobile sources of TACs within the relevant screening distances identified by ARB. The nearest freeways (Capital City Freeway and U.S. Highway 50) are 2 miles and 1.5 from the site, respectively. Urban arterial roadways in the immediate vicinity include H Street and Elvas Avenue, both of which are located over 500 feet from the site and neither of which have daily traffic volumes in excess of 100,000 vehicles per day. The siting and operation of the proposed land uses would be consistent with all of the recommendations listed above and thus would not result in the exposure of sensitive receptors to TACs that exceed ARB's recommended siting criteria. Therefore, neither short-term construction nor long-term operation of the proposed project would result in the exposure of sensitive receptors to excessive TAC emissions that exceed SMAQMD's significance criteria, and any impacts would be **less than significant**.

Mitigation Measure 5.2-4

No mitigation is required.

IMPACT 5.2-5	**Short-term construction-related and long term operational exposure of sensitive receptors to excessive odors.** Neither the short-term construction nor the long-term operation of the proposed project would result in the exposure of sensitive receptors to excessive odors. This impact would be considered **less than significant**.

Odors associated with the proposed project would be generated primarily from construction activities. The predominant source of power for construction equipment is diesel engines. Exhaust odors from diesel engines, as well as emissions associated with asphalt paving and the application of architectural coatings, may be considered offensive to some individuals. However, because odors would be temporary and would disperse rapidly with distance from the source, construction-generated odors would not result in the frequent or sustained exposure of sensitive receptors to objectionable odorous emissions. As a result, short-term construction-related odors would be **less than significant**.

No major sources of odors have been identified in the project area that would result in the exposure of new on-site receptors to existing odorous emissions. In addition, the proposed project would consist of a residential, mixed-use neighborhood that is compatible with the surrounding neighborhood and would not be considered a major source of odors (e.g., wastewater treatment plant, landfill) as listed in SMAQMD's odor screening distances table (SMAQMD 2013). Long-term project operations would result in a net reduction in vehicle trips (including trucks) in the project area (see Section 5.8, Transportation and Traffic), and thus any associated vehicle emission-related odors compared to the existing conditions would be reduced. Therefore, long-term operation of the prosed project would not expose sensitive receptors to excessive odors, and any impacts would be **less than significant**.

Mitigation Measure 5.2-5

No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Ozone precursors emitted anywhere in the SVAB can affect ozone air quality throughout the Valley. Therefore, the proposed project's cumulative context for ozone precursor emissions would be existing and future development in the entire Sacramento Valley. In contrast, CO, PM_{10} and TAC effects are much more limited to the immediate vicinity of their specific sources. Consequently the proposed project's cumulative context for CO, PM_{10} and TAC emissions would be existing and proposed future development in the SVAB.

IMPACT 5.2-6	**Cumulative short-term construction-generated emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$.** Implementation of the proposed project would not increase construction-generated NO_X levels above 85 pounds per day, and would therefore not be cumulatively considerable. Therefore, this impact would be **less than significant**.

As noted above, the proposed project would result in a less-than-significant air quality impact from temporary, project-specific construction activities. According to cumulative air quality significance criteria established by SMAQMD, because project-specific construction emissions are less than significant, any emissions associated with construction of the proposed project would not be cumulatively considerable. Therefore, any cumulative construction-related air quality impacts would be **less than significant**.

Mitigation Measure 5.2-6

No mitigation is required.

IMPACT 5.2-7	**Cumulative long-term operational emissions of ROG, NO_X, PM_{10} and $PM_{2.5}$.**Implementation of the proposed project would result in emissions below baseline levels, and would generate emissions below levels above 85 pounds per day of NO_X, and would therefore not be cumulatively considerable. Therefore, this impact would be **less than significant**.

As noted above, the proposed project would result in a less-than-significant air quality impact from long-term, project-operations because emissions would be below baseline levels, as well as below SMAQMD significance thresholds. Emissions would not contribute to cumulative emissions levels. Further, according to cumulative air quality significance criteria established by SMAQMD, because project-specific operational emissions are less than significant, any emissions associated with operations of the proposed project would not be cumulatively considerable. Therefore, any cumulative operations-related air quality impacts would be **less than significant.**

Mitigation Measure 5.2-7

No mitigation is required.

5.3 BIOLOGICAL RESOURCES

This section evaluates effects of the proposed project on biological resources within and near the project area. Existing biological resources are described below.

Information for this section is based on data collected during reconnaissance-level field surveys on July 2, 2013 by an Ascent Environmental, Inc. biologist, biological database searches, and review of other relevant documentation for the project area and surrounding area, including:

- California Department of Fish and Game's Natural Diversity Database (CNDDB) record search within a 5-mile radius of the project site (CNDDB 2013),
- Species Lists for the "Sacramento East" 7.5-minute quadrangle (Appendix D) created by the U.S. Fish and Wildlife Service (USFWS 2013),
- Final Biological Resource Assessment Report for the Sutter Memorial Hospital (ECORP Consulting Inc. 2013),
- City of Sacramento General Plan 2030 (2009),
- East Sacramento Community Plan (2009), and
- City of Sacramento Municipal Code

In response to the Notice of Preparation (NOP), one comment letter related to biological resources was received (see Appendix B) from the California Department of Fish and Wildlife on November 16, 2012. It stated there was little concern about the project as there was no "natural" habitat on the project site, and recommended addressing the timing and removal of mature trees on the project site that could provide nesting habitat for birds and might result in mortality of birds or their young. This comment is addressed in this section.

5.3.1 ENVIRONMENTAL SETTING

REGIONAL

The project site is located within the City of Sacramento. The regional setting is mainly suburban with the Sacramento and American river corridors supporting riparian woodlands composed of cottonwood (*Populus Freemontii*), willow (*Salix* sp.), sycamore (*Platanus occidentalis*) and valley oak (*Quercus lobata*). Agricultural and grassland areas dominate the unincorporated areas of Sacramento County. Native habitats are located primarily outside the City boundaries but also occur along river and stream corridors and on a number of undeveloped parcels. Native habitats in the region include oak woodlands, riparian woodlands, wetlands, and annual grasslands. These native areas provide homes for a variety of wildlife including migratory birds such as ducks and raptors as well as larger native fauna such as deer (*Odocoileus hemionus*) and coyote (*Canis latrans*).

LOCAL

The project site is located in a suburban setting on 19.36 acres and is surrounded by residential homes on all sides, with a two-story medical office building and associated parking to the immediate east of the project site. The surrounding suburban setting is mainly composed of ornamental and landscaped habitat that attracts non-native and very common wildlife species. The site is less than one mile from the American River. The American River contains stretches of riparian habitat and woodlands that serve as important wildlife habitat and migratory corridors for a variety of native species. Some species, like raptors, could utilize suburban habitat for nesting and forage along the river corridor. Therefore, while the site is suburban in nature, its close proximity to the American River allows for the potential for use by native and sensitive species.

The western and southern portions of the site consist largely of the hospital and associated buildings, and the northeastern portion is mostly parking lot. The site mainly consists of cemented parking lots, walkways and hospital buildings. These areas are bordered by and interspersed with small manicured lawns with native and non-native trees as well as native and non-native shrub and herbaceous vegetation. Of the 293 trees located at the site, there were 34 black oaks (*Quercus kelloggii*), eight coast live oaks (*Quercus agrifolia*), eight valley oak (*Quercus lobata*), 29 white mulberrys (*Morus alba*) 62 common hackberry, 17 Australian pine (*Casuarina equisetifolia*), six Deodor cedar (*Cegrus deodara*), 10 Italian cypress (*Cupressus sempervirens*), and six coast redwood (*Sequoia sempervirens*). Thirty-three of these trees are considered mature heritage trees by the City of Sacramento and are likely to provide high quality nesting and roosting sites for wildlife. Suburban wildlife such as house finch (*Haemorhous mexicanus),* house sparrow (*Passer domesticus*), American robin (*Turdus migratorius*), and Eastern fox squirrel (*Sciurus niger*) were observed during the July 2013 site visit. Other species likely to occur at the site are suburban adapted species such as mourning dove (*Zenaida macroura*), western scrub-jay (*Aphelocoma californica*), and American crow (*Corvus brachyrhynchos*).

SENSITIVE BIOLOGICAL RESOURCES

Sensitive biological resources evaluated as part of this analysis include special-status species and sensitive natural communities. The CNDDB was used as the primary source to identify previously reported occurrences of special-status species and sensitive natural communities in the project vicinity. The CNDDB is a statewide database, managed by the California Department of Fish and Wildlife (CDFW) that is continually updated with the location and condition of the state's rare and declining species and habitats. Although the CNDDB is the most current and reliable tool available for tracking occurrences of special-status species, it contains only those records that have been reported to CDFW.

SPECIAL-STATUS SPECIES

Special-status species are plants and animals in the following categories:

- Listed or proposed for listing as threatened or endangered under federal Endangered Species Act (ESA) or candidates for possible future listing; (USFWS 2013)

- Listed or candidates for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA);
- Listed as Fully Protected under the California Fish and Game Code;
- Animals identified by CDFW as species of special concern;
- Taxa considered by CDFW to be "rare, threatened, or endangered in California" and assigned a California Rare Plant Rank (CRPR). The CDFW system includes five rarity and endangerment ranks for categorizing plant species of concern, which are summarized as follows:
  - CRPR 1A Plants presumed to be extinct in California;
  - CRPR 1B Plants that are rare, threatened, or endangered in California and elsewhere;
  - CRPR 2 Plants that are rare, threatened, or endangered in California but more common elsewhere;
  - CRPR 3 Plants about which more information is needed (a review list); and
  - CRPR 4 Plants of limited distribution (a watch list).
- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances (State CEQA Guidelines, Appendix G); or
- Otherwise meets the definition of rare or endangered under CEQA §15380(b) and (d).

SPECIAL-STATUS PLANTS

One special-status plant species has been documented in the CNDDB within a 5-mile radius of the project site - Sandford's arrowhead (*Sagittaria sanfordii*). This species was eliminated from further evaluation because none of its habitat, wetland or marsh, occurs at the project site. No protocol-level botanical surveys for any special-status species were conducted on the project site.

SPECIAL-STATUS WILDLIFE

Twenty special-status wildlife species have been documented in the CNDDB 5-mile search area. The following 14 species were eliminated from further evaluation because they are restricted to particular habitat types (e.g., vernal pools, streams, ponds, riparian woodland) that are not present on the project site:

- Vernal pool fairy shrimp (*Branchinecta lynchi*),
- Vernal pool tadpole shrimp (*Lepidurus packardi*),
- California linderiella (*Linderiella occidentalis*),
- Central Valley steelhead (*Oncorhynchus mykiss*),
- Central Valley spring run chinook (*Oncorhynchus tshawytscha*),
- Delta smelt (*Hypomesus transpacificus*),
- California tiger salamander (*Ambystoma californiense*),

- Green sturgeon (*Acipenser medirostris*),
- California red-legged frog (*Rana draytonii*),
- Giant garter snake (*Thamnophis gigas*),
- Great blue heron (*Ardea herodias*),
- Purple martin (*Progne subis*), and
- Bank swallow (*Riparia riparia*).

Based on habitat requirements, geographic distribution, and elevation range, the potential occurrences of eight special-status wildlife species are evaluated in Table 5.3-1, including three species (bats) that have not been documented in the CNDDB search area, but are known to occur in the region in similar habitats to those found on the project site.

Table 5.3-1 Special-status Wildlife with Potential to Occur on the Project Site

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Invertebrates				
Valley elderberry longhorn beetle *Desmocerus californicus dimorphus*	T/PD	–	Elderberry shrubs below 3,000 feet in elevation, typically in riparian habitats.	Not likely to occur on site; No elderberry plants were recorded on the site during 2012 and 2013 site visits. The nearest CNDDB occurrence is less than a 1 mile north of the site.
Birds				
Burrowing owl *Athene cunicularia* (burrow sites)	–	SC	Nests and forages in dry, open grasslands, agricultural lands, and desert and scrub habitats with low-growing vegetation and existing ground squirrel burrows or friable soils.	No habitat presently exists. The grounds are well manicured and there is little open space and friable soils for burrows. The nearest CNDDB record is less than half a mile north of the project site near the American River.
Swainson's hawk *Buteo swainsoni* (nesting)	–	T	Forages in grasslands and agricultural lands (alfalfa, row, or grain crops); nests in large trees in riparian areas, grasslands with scattered trees, or in tree lines or small groves near grasslands or croplands.	Could potentially occur on site; suitable nesting habitat in mature trees is present. Nearest CNDDB record about 2-3 miles east of project site along the American River.
White-tailed kite *Elanus leucurus* (nesting)	–	FP	Forages in grasslands and agricultural fields; nests in riparian zones, oak woodlands, and isolated trees.	Could potentially occur on site; suitable nesting habitat in mature trees is present. Nearest CNDDB record is a half mile from the project site along the American River.
Mammals				
Pallid bat *Antrozous pallidus*	–	SC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats. Roosts in rock crevices, oak hollows, bridges, or buildings.	Could occur; potentially suitable roosting habitat in oak trees or lesser used buildings or building sections. There are no CNDDB records of this species within 5 miles of the project site.

Table 5.3-1 Special-status Wildlife with Potential to Occur on the Project Site

Species	Listing Status[1]		Habitat	Potential for Occurrence[2]
	Federal	State		
Townsend's big-eared bat *Corynorhinus townsendii*	–	SC	Typically roosts in caves; however, colonies of <100 individuals occasionally nest in buildings or bridges and hollow trees. Forages in all habitats except alpine and subalpine, though most commonly in moist forests and woodlands.	Could occur; potentially suitable roosting habitat in oak or other mature trees. There are no CNDDB records of this species within 5 miles of the project site.
Western red bat *Lasiurus blossevill*	–	SC	Roosts primarily in tree foliage, especially in cottonwood, sycamore, and other riparian trees or orchards. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging, including grasslands, shrublands, and open woodlands.	Could occur. Project site is near the American River and many large deciduous trees border the site that could be suitable roosting trees. There are no CNDDB records of this species within 5 miles of the project site.
American badger *Taxidea taxus*	–	SC	Drier open shrub, forest, and herbaceous habitats with friable soils.	Unlikely to occur; requires open areas of undisturbed grassland. Existing development surrounding the project site precludes the presence of this species. There are no CNDDB records of this species within 10 miles of the project site.

Note: CNDDB = California Natural Diversity Database; USFWS = U.S. Fish and Wildlife Service
[1] Legal Status Definitions

Federal:	State:	
PD Proposed for Delisting	FP	Fully protected (legally protected)
T Threatened (legally protected)	SC	Species of special concern (no formal protection other than CEQA consideration)
	T	Threatened (legally protected)

Sources: CNDDB 2012; ECORP 2013; USFWS 2013

SENSITIVE HABITATS AND SPECIAL-STATUS PLANT COMMUNITIES

Sensitive habitats include those that are of special concern to resource agencies or are afforded specific consideration through CEQA, Section 1602 of the California Fish and Game Code, Section 404 of the CWA, and the State's Porter-Cologne Act, as discussed under "Regulatory Background" below. Sensitive natural habitat may be of special concern to these agencies and conservation organizations for a variety of reasons, including their locally or regionally declining status, or because they provide important habitat to common and special-status species.

CDFW maintains a list of plant communities that are native to California. Within that list, CDFW identifies special-status plant communities (a.k.a. sensitive natural communities), which they define as communities that are of limited distribution statewide or within a county or region and often vulnerable to environmental effects of projects (CDFW 2013: ix). These communities may or may not contain special-status species or their habitat. Special-status plant communities are tracked in the CNDDB, a

statewide inventory of the locations and conditions of the state's rarest plant and animal taxa and vegetation types.

No native plant communities on CDFW's list of special-status plant communities are present on the Sutter Memorial Hospital site. Elderberry savanna is located within the 5-mile radius along the American River but is not located within the project site. There are no potential wetlands or waters of the United States within this site (ECORP 2013).

5.3.2 REGULATORY SETTING

FEDERAL

FEDERAL ENDANGERED SPECIES ACT

Pursuant to the ESA, USFWS has authority over projects that may affect the continued existence of federally listed (threatened or endangered) species. Section 9 of ESA prohibits any person from "taking" an endangered or threatened fish or wildlife species or removing, damaging, or destroying a listed plant species on federal land or where the taking of the plant is prohibited by state law. Take is defined under ESA, in part, as killing, harming, or harassing. Under federal regulations, take is further defined to include habitat modification or degradation where it actually results in death or injury to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. No federally listed species are expected to be affected by the proposed project.

MIGRATORY BIRD TREATY ACT

The Migratory Bird Treaty Act of 1918 (MBTA), makes it unlawful to pursue, hunt, take, capture, kill or sell birds listed therein ("migratory birds"). The statute does not discriminate between live or dead birds and also grants full protection to any bird parts including feathers, eggs and nests. The current list of species protected by the MBTA can be found in Title 50 of the Code of Federal Regulations (CFR), Section 10.13 (50 CFR 10.13). The list includes nearly all migratory birds native to the United States. Over 800 species are currently on the list.

STATE

CALIFORNIA ENDANGERED SPECIES ACT

Pursuant to the CESA a permit from CDFW is required for projects that could "take" a species state listed as threatened or endangered. Section 2080 of CESA prohibits take of state listed species. Under CESA, take is defined as any activity that would directly or indirectly kill an individual of a species. The definition does not include "harm" or "harass" as in the federal act. As a result, the threshold for take under CESA is higher than under ESA (i.e., habitat modification is not necessarily considered take under CESA). The take of state-listed species incidental to otherwise lawful activities requires a permit, pursuant to Section 2081(b) of CESA.

Fully Protected Species

Protection of fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species and do not provide for authorization of incidental take. CDFW has informed nonfederal agencies and private parties that their actions must avoid take of any fully protected species.

Protection for Bird Nests and Raptors

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (e.g., hawks, owls, eagles, and falcons), including their nests or eggs. Section 3513 of the California Fish and Game Code codifies the federal Migratory Bird Treaty Act.

CALIFORNIA NATIVE PLANT PROTECTION ACT

In addition to the CESA, the California Native Plant Protection Act (NPPA) provides protection to endangered and “rare” plant species, subspecies, and varieties of wild native plants in California. The NPPA’s definition of “endangered” and “rare” closely parallel the CESA definitions of “endangered” and “threatened” plant species.

LOCAL

Sacramento City Code

The City of Sacramento adopted the Tree Preservation Ordinance (Ordinance) to protect trees as an important resource for the community. When circumstances do not allow for retention of trees, permits are required to remove heritage trees that are within the City’s jurisdiction.

The Ordinance (per Chapter 12.64 of the Sacramento City Code) states that heritage trees are protected to “promote scenic beauty, enhance property values, reduce soil erosion, improve air quality, abate noise and provide shade to reduce energy consumption.”

Heritage trees are defined as:

1. Any tree of any species with a trunk circumference of one hundred (100) inches or more, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.

2. Any native *Quercus species, Aesulus California* or *Platanus* Racemosa, having a circumference of thirty-six (36) inches or greater when a single trunk, or a cumulative circumference of thirty-six (36) inches or greater when a multi-trunk, which is of good quality in terms of health, vigor of growth and conformity to generally accepted horticultural standards of shape and location for its species.

3. Any tree thirty-six (36) inches in circumference or greater in a riparian zone. The riparian zone is measured from the centerline of the water course to thirty (30) feet beyond the high water line.

4. Any tree, grove of trees or woodland trees designated by resolution of the city council to be of special historical or environmental value or of significant community benefit. (Sac. City Code Section 12.64.020.)

City of Sacramento 2030 General Plan

The following goals and policies from the City of Sacramento General Plan pertaining to biological resources are applicable to the proposed Sutter Park Neighborhood Project:

Goal ER 2.1 Natural and Open Space Protection. Protect and enhance open space, natural areas, and significant wildlife and vegetation in the city as integral parts of a sustainable environment within a larger regional ecosystem.

- **Policy ER 2.1.1 Resource Preservation.** The City shall encourage new development to preserve onsite natural elements that contribute to the community's native plant and wildlife species value and to its aesthetic character.
- **Policy ER 2.1.8 Oak Woodlands.** The City shall preserve and protect oak woodlands, and/or significant stands of oak trees in the city that provide habitat for common native, and special-status wildlife species. If not feasible, the mitigation of all adverse impacts on oak woodlands shall comply with the standards of the *Oak Woodlands Conservation Act*.
- **Policy ER 2.1.10 Habitat Assessments.** The City shall consider the potential impact on sensitive plants for each project requiring discretionary approval and shall require preconstruction surveys and/or habitat assessments for sensitive plant and wildlife species. If the preconstruction survey and/or habitat assessment determines that suitable habitat for sensitive plant and/or wildlife species is present, then either (1) protocol-level or industry-recognized (if no protocol has been established) surveys shall be conducted; or (2) presence of the species shall be assumed to occur in suitable habitat on the project site. Survey Reports shall be prepared and submitted to the City and the CDFG or USFWS (depending on the species) for further consultation and development of avoidance and/or mitigation measures consistent with state and federal law.
- **Policy ER 3.1.3 Trees of Significance.** The City shall require the retention of trees of significance (such as heritage trees) by promoting stewardship of such trees and ensuring that the design of development projects provides for the retention of these trees wherever possible. Where tree removal cannot be avoided, the City shall require tree replacement or suitable mitigation.

East Sacramento Community Plan

The East Sacramento Community Plan established several goals to protect biological resources, including wetlands, annual grasslands and vernal pools, wildlife corridors, and sensitive plant and wildlife habitats. None of these resources are present on the project site and therefore, none of the East

Sacramento Community Plan goals relating to biological resources are applicable to the proposed project.

5.3.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

This section describes potential impacts to biological resources that could result from construction and operation of the Sutter Park Neighborhood project. Information in this section is based on data collected during reconnaissance-level field surveys, and review of other relevant documentation for the project area and surrounding area, including:

- CNDDB record search for the “Sacramento East, California” 7.5-minute quadrangle (CNDDB 2013);
- Species Lists for the “Sacramento East, California” 7.5-minute quadrangle created by USFWS (USFWS 2013);
- Biological Resources Assessment for Sutter Memorial Hospital (ECORP Consulting 2013);
- City of Sacramento General Plan 2030 (2009); and
- East Sacramento Community Plan (2009).

Potential impacts are analyzed using occurrences of sensitive species and/or habitats within the project site to evaluate how the proposed project would affect these resources, and then comparing the change in a resource’s status to the Standards of Significance identified below.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on biological resources are considered significant if the proposed project would:

- create a potential health hazard, or use, produce or dispose of materials that would pose a hazard to plant or animal populations in the area affected;
- Result in substantial degradation of the quality of the environment, reduction of the habitat, reduction of population below self-sustaining levels of threatened or endangered species of plant or animal;
- affect other species of special concern to agencies or natural resource organizations (such as regulatory waters and wetlands); or
- violate the City’s Heritage Tree Ordinance (City Code 12.64.040).

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

ISSUES NOT DISCUSSED FURTHER

No special-status plants were found during reconnaissance surveys or in database reviews to be on site; nor are any expected to be at the project site due to lack of suitable habitat types on the project site. Therefore, demolition, construction and operation of the proposed project would not have an impact on special-status plants. No wetland, riparian, aquatic, or other sensitive habitat would be affected by the proposed project. There are no native wildlife nursery sites or established migratory routes through the project site that are vital for the movement of any resident or migratory fish or wildlife species or population. Project implementation would not interfere substantially with the movement of native resident or migratory wildlife species because the site is surrounded by suburban development and does not currently provide an important connection between any areas of natural habitat that would otherwise be isolated. The Sutter Memorial Hospital site provides limited value to wildlife species and development of the site would not eliminate any habitat important to the long-term survival of any species or community and would not substantially reduce the number or restrict the range of any species.

IMPACT 5.3-1	**Loss of raptor nests.** Tree removal during the raptor breeding season could result in mortality of eggs or young. Construction activities adjacent to active nests could also result in nest abandonment. Loss of an active raptor nest would be a **significant** impact.

SHORT-TERM DEMOLITION AND CONSTRUCTION

The larger and mature trees on the proposed project site could provide potential nesting sites for Cooper's hawks, sharp-shinned hawks, Swainson hawks, white-tailed kites and other common raptors, such as red-tailed hawk (*Buteo jamaicensis*), red-shouldered hawk (*Buteo lineatus*), western screech owl (*Megascops kennicottii*), and great horned owl (*Bubo virginianus*), which are protected under Section 3503.5 of the Fish and Game Code and under the Migratory Bird Act (1918).

As discussed in the Project Description (see Chapter 3), project construction would include demolition of buildings and concrete slab on the project site as well as utility removal. Grading and asphalt paving and tree removal and grubbing would occur following demolition. Construction of streets, buildings and planting of vegetation would occur in the final phases of construction. Building, concrete and tree removal would negatively affect individual animals that are roosting or nesting on the site. Special-status species living in building or trees planned for removal could be killed during demolition activities.

Demolition and construction activities would elevate noise levels and could cause disturbance to nesting or roosting of special status species on site or adjacent to the site. The demolition phase is expected to last approximately 180 calendar days. No specific season is identified for either demolition or construction; therefore, construction or demolition could occur any time of year. Either could occur

during breeding, reproduction, and juvenile rearing periods. Thus, there is potential for noise disturbance to negatively affect breeding or reproduction of species on or adjacent to the project site.

There are currently no known raptor nests at the site and the small, suburban nature of the site makes it less likely that removal of mature heritage trees that could be used for nesting would impact the regional population. Permanent removal of potential nest trees (heritage trees) at the project site is likely to have less-than-significant effect on special status raptors populations.

If active nests are present in trees that would be removed during the raptor breeding season (February–August), mortality of eggs and chicks could result. In addition, project demolition and construction could disturb active nests by increased activity and higher than ambient noise levels near the site or in trees not yet removed from the site, potentially resulting in nest abandonment by the adults and mortality of chicks and eggs. These impacts would be in conflict with the CDFW 3503.5 code and the Migratory Bird Act. The loss of an active raptor nest or take of individuals from demolition or construction would be a **significant** impact.

Mitigation Measure 5.3-1: Avoid disturbing active raptor nests.

The following mitigation measure would apply to the proposed project to reduce construction impacts on tree-nesting raptors:

a. *The construction contractor shall ensure that all tree removal activities take place between September 1 and February 15 to avoid removing active raptor nests.*

b. *For construction activities occurring between February 16 and August 31, the construction contractor shall retain a qualified biologist to conduct preconstruction surveys for nesting raptors and to identify active nests on and within 0.25 mile of the demolition and construction site. The surveys shall be conducted no more than 30 days before the beginning of construction activities that could remove trees or otherwise disturb nesting raptors. To the extent feasible, guidelines provided in Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in the Central Valley (Swainson's Hawk Technical Advisory Committee 2000) will be followed.*

c. *If active nests are found, the construction contractor shall establish appropriate buffers around the nests. The qualified biologist will determine an adequate buffer for the species and nest. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. Monitoring of the nest by a qualified biologist shall be required if the activity has the potential to adversely affect the nest. For Swainson's hawk nests, DFG guidelines (1994) recommend maintenance of 0.25 mile buffers around Swainson's hawk nests in developed areas, but the size of the buffer may be adjusted if a qualified biologist, in consultation with CDFW, determines that such an adjustment would not be likely to adversely affect the nest. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.*

Implementation of Mitigation Measure 5.3-1 would reduce significant impacts on tree-nesting raptors, including Swainson's Hawks, to a **less-than-significant** level because it would ensure that these species are not disturbed during nesting so that project demolition and construction would not result in nest abandonment and loss of eggs or young.

Long-Term Operation

Buildings, trees, and parks in the proposed new neighborhood would provide similar habitat in the long-term to what currently exists on the Sutter Memorial Hospital site.In the short-term, newly planted vegetation is not likely to provide nesting or roosting habitat for wildlife species. Future trees planted on site can be found in the Sutter Park Neighborhood PUD Design Guidelines. The types of trees that could be planted are numerous and include conifers, oaks, sycamores, and walnut trees that could be potential nesting trees once they reach mature height and status, which would take a decade and longer. However, other trees such as orchard type trees (as listed in the Sutter Park Neighborhood PUD Guidelines) are unlikely to be adequate nesting places for raptors due to their low height and inadequate structure. Because there are currently no known raptor nests at the site and the small, suburban nature of the site makes it less likely that removal of mature nesting trees would impact the regional population, buildings, trees and parks in the new neighborhood would likely provide similar habitat to what currently exists on the project site for common or special-status raptor species. Therefore, operation of the proposed project is not likely to result in loss of raptor nests.

The long-term nesting habitat under the project would be similar to the existing conditions, and short-term operational raptor impacts would be **less than significant** after mitigation.

IMPACT 5.3-2	**Impacts on migratory birds.** Tree and shrub removal during the breeding season could result in avian mortality of eggs or young. Construction activities adjacent to active nests could also result in nest abandonment. Loss of an active nest would be considered a **significant** impact based on the Migratory Bird Treaty Act (1918).

Short-Term Demolition and Construction

Vegetation removal and ground disturbances associated with demolition and construction of the proposed project could result in direct destruction of bird nests protected under the Migratory Bird Treaty Act. Project construction could also result in disturbance of migratory birds causing nest abandonment by the adults and mortality of chicks and eggs. The loss of some nests of common migratory bird species (e.g., mourning dove, American robin, and scrub jay) would not be considered a substantial impact, because it would not result in a substantial effect on their populations locally or regionally. However, the destruction of any migratory bird nest is a violation of the Migratory Bird Treaty Act and Section 3503 of the Fish and Game Code and would be considered a significant impact. Removal of vegetation at the project site could result in the loss of active migratory bird nests. This would be considered a **significant** impact.

Mitigation Measure 5.3-2: Avoid disturbing active migratory bird nests.

The following mitigation measure would apply to construction of the proposed project to reduce impacts on migratory birds:

The contractor will implement the following measures to avoid or minimize loss of migratory bird nests:

a. *Vegetation removal activities will be carried out during the nonbreeding season (September 1-February 31) for migratory birds.*

b. *For construction activities occurring between February 16 and August 31, the construction contractor shall retain a qualified biologist to conduct preconstruction surveys for nesting migratory birds and to identify active nests on and within 0.25 mile of the demolition and construction site. The surveys shall be conducted no more than 30 days before the beginning of construction activities that could remove trees or otherwise disturb nesting migratory birds.*

c. *If active nests are found, the construction contractor shall establish appropriate buffers around the nests. The qualified biologist will determine an adequate buffer for the species and nest. No project activity shall commence within the buffer area until a qualified biologist confirms that any young have fledged and the nest is no longer active. Monitoring of the nest by a qualified biologist shall be required if the activity has the potential to adversely affect the nest. Monitoring of the nest by a qualified biologist will be required if the activity has potential to adversely affect the nest.*

Implementation of Mitigation Measure 5.3.2 would reduce potentially significant impacts on migratory birds to a **less-than-significant** level because it would require measures to avoid disturbances of active nests so that project demolition and construction would not result in nest abandonment and loss of eggs or young of migratory birds.

Long-Term Operation

Future trees planted on site can be found in the Sutter Park Neighborhood PUD Guidelines (Stonebridge 2013). Since the location and quantity of specific tree and shrub types to be planted within the neighborhood is unknown at this time, it is difficult to determine whether these new trees and shrubs would provide similar nesting habitat in the future. Nesting habitat quality would likely be diminished in the short-term as young trees generally provide lower quality habitat for bird species due to lack of height and structure. However, because of the suburban nature of the site, it is unlikely the habitat quality in the area would be substantially altered with the planting of new trees and shrubs on the site in the long term. Therefore, the removal of this limited habitat for nesting during the time the newly planted trees and shrubs mature is not likely to impact the species significantly.

Buildings, trees and parks in the new neighborhood would likely provide similar habitat to what currently exists on the Sutter Memorial Hospital site for migratory bird species in the long term. Therefore, operation of the proposed project is not likely to have any negative effect on migratory bird use of the site or the immediate surrounding area. The nesting habitat under the proposed project would be

similar to the existing conditions and long-term operational impacts on migratory birds would be **less than significant**.

IMPACT 5.3-3	**Loss of bat colonies during building demolition.** Implementation of the proposed project involves demolition of existing abandoned buildings and other structures. These buildings provide potential roost structures for common and special-status bats. Demolition, sealing, or other construction activities at these facilities could result in disturbances to active bat colonies that could affect the survival of young or adult bats. Loss of an active bat colony would be considered a **significant** impact.

SHORT-TERM DEMOLITION AND CONSTRUCTION

The pallid bat, a California species of special concern, is known to roost in abandoned or minimally-used buildings, and Townsend's big-eared bat, a California species of special concern, may roost in abandoned or minimally-used buildings, hollow trees or limbs, or large bark crevices. Oaks and sequoias are known to house Townsend big-eared and pallid bats in the crevices and hollow features in their structures. Several of these types of tree are on the project site and planned for removal could be potential habitat for these species. These bats will coexist with humans in rural settings, but appear to be intolerant of suburban and urban development although they can be found on the edge of urban areas (Technology Associates 2009a and 2009b). As a result, it is unlikely that pallid or Townsend big-eared bats are present because of the suburban nature and the small project area. Thus, demolition of Sutter Memorial Hospital and removal of trees would not result in the mass displacement, injury, and mortality of individual pallid or Townsend big-eared bats and no impact would occur.

Deciduous trees on the project site could support roosting western red bats as their foliage is similar to the aspens and cottonwoods that red bats are known to utilize. This species has been found in blue oak woodlands, in downtown Sacramento, in large diameter mature oak trees, and in orange, fig and apricot orchards (Technology Associates 2009c). It roosts in extensive riparian habitat on the Sacramento River, which provides preferable habitat over suburban and urban areas. It is possible that this species could utilize some of the mature, deciduous trees on the project site for roosting and breeding because the project site has many tall, mature deciduous trees and the site is located less than one mile from the River and other riparian habitat. Habitat on the site is limited, and the numbers of bats utilizing the site would likely be low. However, direct mortality could occur from the removal of trees. Because population numbers and trends are unknown, any mortality of this species from removal of trees would be a **significant** impact.

Mitigation Measure 5.3-3: Ensure bats are absent from roost sites.

The following mitigation measure would apply to construction of the proposed project to reduce impacts on bats:

- *The construction contractor shall retain a qualified biologist to conduct surveys for roosting western red bats prior to tree removal. If evidence of bat use is observed, the number of bats*

using the roost will be determined. Bat detectors may be used to supplement survey efforts. If no evidence of bat roosts is found, then no further study shall be required.

- *If tree roosting bats are found, bats shall be excluded from the roosting site before the tree is removed. A mitigation program addressing compensation, exclusion methods, and roost removal procedures shall be developed by a qualified biologist in consultation with CDFW before implementation. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). Once, it is confirmed that bats are not present in the original roost site, the tree may be removed.*

Implementation of Mitigation Measure 5.3-3 would reduce potentially significant impacts on western red bats to a **less-than-significant** level because it would ensure bats are absent from potential roost sites before demolition and roosting trees are replaced through planting.

Long-Term Operation

Future trees planted on site can be found in the Sutter Park Neighborhood PUD Guidelines (Stonebridge 2013). Since the location and quantity of specific tree types to be planted within the neighborhood is unknown at this time, it is difficult to determine whether these new trees would provide similar roosting habitat in the future. Roosting habitat quality would likely be diminished in the short-term as young trees generally provide lower quality habitat for bat species due to lack of height and structure. However, because of the suburban nature of the site, it is unlikely that the long-term alteration of habitat on the site would substantially affect special-status bat species in the region. Because of the suburban nature of the site, it is unlikely that this area would provide mass roosting habitat for bats in the region. Therefore, the removal of this limited habitat for roosting during the time the newly planted trees mature is not likely to substantially affect the species. The roosting tree habitat under future long-term operation of the project would be similar to the existing conditions, and operation of the project would result in a **less-than-significant** impact on bats at the site and in the region.

IMPACT 5.3-4	**Conflict with tree preservation ordinance.** Implementation of the proposed project could result in the removal of, or damage to, heritage trees identified on the project site. Because heritage trees are protected under the City Code, removal of mature heritage trees would be a **significant** impact.

According to the tree inventory completed by ECORP (2013), thirty-three trees on the project site classify as heritage trees as defined under the Sacramento City Code (Section 12.64.020). This includes 21 trees with a circumference of ≥100 inches and 12 native oak trees with a circumference of ≥36 inches. Demolition and construction on the project site could result in the removal of or damage to all 33 of these heritage trees.

Some trees may remain onsite but construction and development activities could result in indirect impacts affecting heritage tree root systems such as trenching, grading, soil compaction, placement of fill, impervious surfaces, irrigation, and landscaping within the drip lines of oak trees, which can lead to

root damage ultimately resulting in death of the tree. Damage to the root zones of any protected trees that leads to eventual death of the trees would conflict with this local tree heritage tree preservation ordinance.

Because heritage trees are protected under the City Code, removal or injury of up to 33 mature heritage trees would be a **significant** impact.

Mitigation Measure 5.3-4: Comply with tree preservation ordinance.

The following mitigation measure would apply to the proposed project to reduce impacts on heritage trees:

The project applicant would implement the following measures to avoid and minimize impacts on mature heritage tree and native oak trees and comply with the Sacramento City Code (Section 12.64.020):

- *The project proponent shall obtain written permission from the City (tree removal permit) to grant the removal of identified heritage trees and mature native oak trees. (prior code § 45.04.216).*
- *The project proponents shall insure that thirty-three heritage trees that are removed are replaced within the new neighborhood with similar species of trees. Details on heritage trees species and locations can be found in the Biological Resources Assessment (ECORP 2013).*
- *The project proponents shall work with the City arborist to determine appropriate number, types, size of replacement plantings, maintenance requirements and location.*
- *The project proponent shall ensure that replacement trees are established and maintained for at least three years to ensure long-term health and viability.*
- *To ensure protection of Heritage trees to be retained on the project site (if any are identified), protective fencing shall be installed at the dripline during construction.*

  Grading, trenching, equipment or materials storage, parking, paving, irrigation, and landscaping will be prohibited within the fenced areas.
- *No signs, ropes or cables will be attached to trees to be retained.*
- *No oil, fuel, concrete mix or other deleterious substance shall be placed in, or allow to flow into, the drip line area of any tree to be retained.*
- *Grade elevation shall not change by more than two feet within thirty (30) feet of the drip line area of a retained Heritage tree.*

Implementation of Mitigation Measure 5.3-4 would reduce significant impacts on trees protected by local ordinance to a **less-than-significant** level because impacts to mature trees of all species and mature native oak trees would be minimized consistent with the Sacramento City Code (Section

12.64.020) and heritage trees would be replaced. Mature heritage and oak trees removed as a result of project implementation would be permitted for removal.

IMPACT 5.3-5	**Expose animals and plants to asbestos-containing materials, petroleum products, contaminated ground water or other hazardous materials or situations.** Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated soil or buried debris that may contain hazardous substances, or contaminated groundwater, which could result in injury or death to special-status species. This is a **potentially significant** impact.

Section 5.6, “Hazards and Hazardous Materials,” of this Draft EIR describes the existing site features related to hazardous materials and analyzes the potential for inadvertent release or improper disposal of debris containing potentially hazardous materials. As stated in Impact 5.6-1, federal, State, and local regulations have been developed to address potential impacts related to the handling and disposal of hazardous materials during demolition and construction. Specific actions incorporated into the project are described under Impact 5.6-1 (see Section 5.6, “Hazards and Hazardous Materials”). Special-status species could be affected by contaminated materials or groundwater that is encountered during project demolition and construction. Impacts related to hazardous materials are considered potentially significant because the hazardous materials potentially present on the site have not been fully characterized, and potential effects to animals and plants on the site could occur due to upset or accidental release. This would be **a potentially significant** impact.

Mitigation Measure 5.3-5

Implement Mitigation Measures 5.6-1, 5.6-2, and 5.6-3 from Section 5.6, “Hazards and Hazardous Materials.”

Implementation of Mitigation Measures 5.6-1 and 5.6-2 would minimize the risk of an accidental release of hazardous substances that could adversely affect special-status species. Mitigation Measure 5.6-3 would reduce impacts associated with exposing animals and plants to contaminated groundwater. Implementation of these measures would reduce this impact to a **less-than-significant** level through detailed investigation of site conditions and remediation of identified contamination. See Section 5.6, “Hazards and Hazardous Materials,” for details on the mitigations measures.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.3.6	**Cumulative effects on biological resources.** Implementation of the proposed project has the potential to adversely affect special-status terrestrial species (white-tailed kite, Swainson's hawk and other nesting raptors, and special-status bats). Potential impacts of the proposed project related to wildlife would be associated with construction and demolition disturbances to wildlife and their habitats. Implementation of Mitigation Measures 5.3-1 through 5.3-5 would ensure that the project's impacts are reduced to a less-than-significant level. Therefore, the proposed project would not contribute to a cumulative impact related to biological resources, and this is considered a **less-than-significant cumulative impact**.

The cumulative context for biological resources for the proposed project includes buildout of the City of Sacramento General Plan. Past development in the City has resulted in a loss of open space, vegetation associations important to raptors, loss of sensitive or special-status wildlife species, and the loss of sensitive habitat such as riparian and wetlands. Although individual future projects would be required to mitigate significant impacts on biological resources in compliance with CEQA, the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and other state, local, and federal statutes, the net loss of native habitat for plants and wildlife species in the City of Sacramento and Sacramento County will continue.

Implementation of the proposed project could reduce future loss of existing open space at the periphery of the city. The proposed project would provide housing that is currently needed by the City by redeveloping an infill site. This would reduce the need to build on open space areas in the future, thus, potentially preserving wildlife habitat in undeveloped areas of the City. Implementation of the proposed project has the potential to adversely affect special-status terrestrial species (white-tailed kite, Swainson's hawk and other nesting raptors, and special-status bats). Potential impacts of the proposed project related to wildlife would be associated with construction and demolition disturbances to wildlife and their habitats. In the long term, however, buildings, trees, and parks in the proposed new neighborhood would provide similar or better habitat to what currently exists on the Sutter Memorial Hospital site. The proposed project would include 1.24 acres of parkland, but the landscaped areas on the property that will be removed are 1.6 acres. While open space for wildlife would slightly decrease on the project site, habitat might actually increase, as described above.

Implementation of Mitigation Measures 5.3-1 through 5.3-5 would ensure that the project's temporary impacts are reduced to a less-than-significant level. After mitigation, biological resources impacts would either be avoided or reduced to such an extent that they would not result in a considerable contribution to the cumulative effects identified under the City of Sacramento's General Plan. Therefore, the proposed project would not contribute to a cumulative impact related to biological resources, and this is considered a **less-than-significant cumulative impact**.

5.4 CLIMATE CHANGE

This section describes the proposed project's construction-related (short-term) and operation-related (long-term) emissions of greenhouse gases. The discussion includes the criteria for determining the level of significance of the effects and a description of the methods and assumptions used to conduct the analysis. This section includes a discussion of the current state of climate change science, and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; and a description of project-generated GHG emissions and their contribution to global climate change.

No comments related to climate change were received in response to the Notice of Preparation.

5.4.1 ENVIRONMENTAL SETTING

ATTRIBUTING CLIMATE CHANGE – THE PHYSICAL SCIENTIFIC BASIS

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface, and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. The earth has a much lower temperature than the sun; therefore, the earth emits lower frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead "trapped," resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on Earth.

The most abundant greenhouse gases are water vapor and carbon dioxide (CO_2). Water vapor is also a GHG, and is naturally occurring and unregulated. Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of greenhouse gases, scientists have established a Global Warming Potential (GWP) for each greenhouse gas based on its ability to absorb and re-radiate long wave radiation. GWP is a simplified index that uses the warming potential of carbon dioxide as the base unit of measurement. For example, CO_2 has a GWP of 1, but methane (CH_4) has a GWP of 21 because methane has approximately 21 times more global warming potential than CO_2. Since there are numerous GHG emissions with varying degrees of GWP, GHG emissions as a whole are frequently expressed in a unit known as carbon dioxide equivalent (CO_2e), which normalizes all GHG emissions to equivalent CO_2 emission levels. This allows varying types and amounts of GHG emissions to be expressed in the same unit of measurement.

Prominent GHGs contributing to the greenhouse effect include:

- Carbon Dioxide. Carbon dioxide (CO_2) is an odorless, colorless gas that is emitted by mobile and stationary sources as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. Carbon dioxide is the most widely emitted GHG; fossil fuel combustion in stationary and mobile sources is the primary source of emissions. Due to the emergence of industrial facilities and mobile sources in the past 250 years, the concentration of carbon dioxide in the atmosphere has increased 39 percent (EPA 2013a).
- Methane. Methane (CH_4) emissions come from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. In the United States, the top three sources of methane are landfills, natural gas systems, and enteric fermentation. Methane is the primary component of natural gas, which is used for space and water heating, steam production, and power generation. The GWP of methane is 21.
- Nitrous Oxide. Nitrous oxide (N_2O) production sources include natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of nitrous oxide is 310.
- Hydrofluorocarbons. Hydrofluorocarbons are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of hydrofluorocarbons for cooling and foam blowing is growing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The GWP of hydrofluorocarbons range from 140 for Hydrofluorocarbon-152a to 6,300 for Hydrofluorocarbon-236fa.
- Perfluorocarbons. Perfluorocarbons (PFCs) are compounds consisting of carbon and fluorine. They are primarily created as a by-product of aluminum production and semi-conductor manufacturing. Perfluorocarbons are potent greenhouse gases with a Global Warming Potential several thousand times that of carbon dioxide, depending on the specific perfluorocarbon. Another area of concern regarding perfluorocarbons is their long atmospheric lifetime (up to 50,000 years). (EPA 2013b). The GWP of perfluorocarbons range from 5,700 to 11,900.
- Sulfur Hexafluoride. Sulfur hexafluoride is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. Sulfur hexafluoride is the most potent greenhouse gas that has been evaluated by the Intergovernmental Panel on Climate Change with a GWP of 23,900; however, its global warming contribution is not as high as the GWP indicates due to its low mixing ratio compared to carbon dioxide (4 parts per trillion in 1990 versus 365 parts per million). (EPA 2013b).

Human-caused emissions of these GHGs in excess of natural ambient concentrations are responsible for intensifying the greenhouse effect and have led to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. It is extremely unlikely that global climate change of the past 50 years can be explained without including the contribution from human activities (Intergovernmental Panel on Climate Change 2007).

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about 1 day), GHGs have long atmospheric lifetimes (1 year to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO_2 is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO_2 emissions, approximately 54percent is sequestered through ocean uptake, uptake by northern hemisphere forest regrowth, and other terrestrial sinks within a year, whereas the remaining 46 percent of human-caused CO_2 emissions remains stored in the atmosphere (Seinfeld and Pandis 1998).

Similarly, impacts of GHGs are borne globally, as opposed to localized air quality effects of criteria air pollutants and toxic air contaminants. The quantity of GHGs that it takes to ultimately result in climate change is not precisely known, but the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature, or to global, local, or micro climate. From the standpoint of CEQA, GHG impacts related to global climate change are inherently cumulative.

Cumulative impacts are the collective impacts of one or more past, present, and future projects that, when combined, result in adverse changes to the environment. In determining the significance of a proposed project's contribution to anticipated adverse future conditions, a lead agency should generally undertake a two-step analysis. The first question is whether the *combined* effects from *both* the proposed project *and* other projects would be cumulatively significant. If the agency answers this inquiry in the affirmative, the second question is whether "the proposed project's *incremental* effects are cumulatively considerable" and thus significant in and of themselves. The cumulative project list for this issue (climate change) comprises anthropogenic (i.e., human-made) greenhouse gas (GHG) emissions sources across the globe, and no project alone would reasonably be expected to contribute to a noticeable incremental change to the global climate. However, legislation and executive orders on the subject of climate change in California have established a statewide context and a process for developing an enforceable statewide cap on GHG emissions. Given the nature of environmental consequences from GHGs and global climate change, CEQA requires that lead agencies consider evaluating the cumulative impacts of GHGs, even relatively small (on a global basis) additions. Small contributions to this cumulative impact (from which significant effects are occurring and are expected to worsen over time) may be potentially considerable and therefore significant.

ATTRIBUTING CLIMATE CHANGE – GREENHOUSE GAS EMISSION SOURCES

Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial and agricultural emissions sectors (ARB 2008). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation. Emissions of CO_2 are byproducts of fossil fuel combustion. CH_4, a highly potent GHG, results from off-gassing (the release of chemicals from nonmetallic

substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. N_2O is also largely attributable to agricultural practices and soil management. CO_2 sinks, or reservoirs, include vegetation and the ocean, which absorb CO_2 through sequestration and dissolution, respectively, two of the most common processes of CO_2 sequestration.

STATE GREENHOUSE GAS EMISSIONS INVENTORY

According to different ranking systems, California is the 12th to 16th largest emitter of CO_2 in the world (California Energy Commission [CEC] 2006). California produced 484 million metric tons (MMT) of CO_2 equivalent (CO_2e) in 2004 at its peak over the 2000-2009 inventory period, and produced 457 MMT of CO_2e in 2009 (ARB 2011a). CO_2e is a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the GWP of a GHG, is dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. For example, as described in Appendix C, “Calculation References,” of the General Reporting Protocol of the California Climate Action Registry (2009), 1 ton of CH_4 has the same contribution to the greenhouse effect as approximately 21 tons of CO_2. Therefore, CH_4 is a much more potent GHG than CO_2. Expressing emissions in CO_2e takes the contributions of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Combustion of fossil fuel in the transportation sector was the single largest source of California’s GHG emissions in 2009, accounting for 38 percent of total GHG emissions in the state (California Air Resources Board [ARB] 2011a). This sector was followed by the electric power sector (including both in-state and out-of-state sources) (23 percent) and the industrial sector (20 percent) (ARB 2011a).

LOCAL GREENHOUSE GAS EMISSIONS INVENTORY

The City of Sacramento completed a community-wide inventory of GHGs for sources within its jurisdiction boundaries for the year 2005, in coordination with the County of Sacramento, the Sacramento Municipal Utility District, and other incorporated cities within the county (Sacramento County 2009). The City’s GHG inventory showed that sources within Sacramento generated approximately 4.4 MMT of CO_2e in 2005. The transportation, industrial/commercial, and residential sectors composed the majority of the city’s GHG emissions (Sacramento County 2009).

5.4.2 REGULATORY SETTING

FEDERAL

The U.S. Environmental Protection Agency (EPA) is the federal agency responsible for implementing the Clean Air Act (CAA). The U.S. Supreme Court ruled on April 2, 2007, that CO_2 is an air pollutant as defined under the CAA, and that EPA has the authority to regulate emissions of GHGs. In response to the mounting issue of climate change, EPA has taken actions to regulate, monitor, and potentially reduce GHG emissions.

National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks

On September 15, 2009, the EPA and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) proposed a new national program that would reduce GHG emissions and improve fuel economy for all new cars and trucks sold in the United States. EPA proposed the first-ever national GHG emissions standards under the CAA, and NHTSA proposed Corporate Average Fuel Economy (CAFE) standards under the Energy Policy and Conservation Act. This national program would allow automobile manufacturers to build a single light-duty national fleet that satisfies all requirements under both federal programs and the standards of California and other states.

On August 28, 2012, the EPA and NHTSA issued joint Final Rules for CAFE standards for vehicle model years 2017 and beyond (NHTSA 2012). These first-ever national GHG emissions standards will increase fuel economy to the equivalent of 54.5 miles per gallon for cars and light-duty trucks by model year 2025. EPA approved these standards under the CAA, and NHTSA approved them under the Energy Policy and Conservation Act.

Endangerment and Cause or Contribute Findings

On December 7, 2009, the EPA adopted its Proposed Endangerment and Cause or Contribute Findings for GHGs under the CAA (EPA 2010). The Endangerment Finding is based on Section 202(a) of the CAA, which states that the Administrator (of EPA) should regulate and develop standards for "emission[s] of air pollution from any class or classes of new motor vehicles or new motor vehicle engines, which in [its] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." The rule addresses Section 202(a) in two distinct findings. The first addresses whether or not the concentrations of the six key GHGs (i.e., CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) in the atmosphere threaten the public health and welfare of current and future generations. The second addresses whether or not the combined emissions of GHGs from new motor vehicles and motor vehicle engines contribute to atmospheric concentrations of GHGs and therefore the threat of climate change.

The Administrator found that atmospheric concentrations of GHGs endanger the public health and welfare within the meaning of Section 202(a) of the CAA. The evidence supporting this finding consists of human activity resulting in "high atmospheric levels" of GHG emissions, which are very likely responsible for increases in average temperatures and other climatic changes. Furthermore, the observed and projected results of climate change (e.g., higher likelihood of heat waves, wild fires, droughts, sea level rise, and higher intensity storms) are a threat to the public health and welfare. Therefore, GHGs were found to endanger the public health and welfare of current and future generations.

The Administrator also found that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. The EPA's final findings

respond to the 2007 U.S. Supreme Court decision that GHGs fit within the CAA definition of air pollutants. The findings do not in and of themselves impose any emission reduction requirements but rather allow EPA to finalize the GHG standards proposed earlier in 2009 for new light-duty vehicles as part of the joint rulemaking with the U.S. Department of Transportation.

STATE

ARB is the agency responsible for coordination and oversight of state and local air pollution control programs in California and for implementing the California Clean Air Act, which was adopted in 1988. Various statewide and local initiatives to reduce the state's contribution to GHG emissions have raised awareness that, even though the various contributors to and consequences of global climate change are not yet fully understood, global climate change is under way, and there is a real potential for severe adverse environmental, social, and economic effects in the long term.

ASSEMBLY BILL 1493

In 2002, then-Governor Gray Davis signed Assembly Bill (AB) 1493. AB 1493 required the ARB to develop and adopt by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty trucks and other vehicles determined by ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, in 2004 ARB approved amendments to the California Code of Regulations (CCR) adding GHG emissions standards to California's existing standards for motor vehicle emissions. Amendments to CCR Title 13, Sections 1900 and 1961 (13 CCR 1900, 1961), and adoption of Section 1961.1 (13 CCR 1961.1) required automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily for the transportation of persons), beginning with the 2009 model year. Implementation of AB 1493 lapsed because of delays in receiving proper approvals from EPA to implement this law under the CAA. California received the necessary approvals June 30, 2009; however, the state has agreed to allow the federal government to implement similar legislation (see "National Program to Cut Greenhouse Gas Emissions and Improve Fuel Economy for Cars and Trucks," above).

EXECUTIVE ORDER S-3-05

Executive Order S-3-05, which was signed by Governor Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, exacerbate California's air quality problems, and potentially cause a rise in sea level. To combat those concerns, the executive order established total GHG emission targets. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050. This Executive Order is binding only on state agencies, and has no force of law for local governments; however, the signing of S-3-05 sent a clear

signal to the California Legislature about the framework and content for legislation to reduce GHG emissions.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In September 2006, Governor Schwarzenegger signed AB 32, the California Global Warming Solutions Act of 2006. AB 32 establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and a cap on statewide GHG emissions. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs ARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

Assembly Bill 32, Climate Change Scoping Plan

In December 2008, ARB adopted its Climate Change Scoping Plan, which contains the main strategies California will implement to achieve reduction of approximately 118 MMT CO_2e, or approximately 22 percent from the state's projected 2020 emission level of 545 MMT CO_2e under a business-as-usual scenario (this is a reduction of 47 MMT CO_2e, or almost 10 percent, from 2008 emissions). ARB's original 2020 projection was 596 MMT CO_2e, but this revised 2020 projection takes into account the economic downturn that occurred in 2008 (ARB 2011a). The Scoping Plan reapproved by ARB in August 2011 includes the Final Supplement to the Scoping Plan Functional Equivalent Document, which further examined various alternatives to Scoping Plan measures. The Scoping Plan also includes ARB-recommended GHG reductions for each emissions sector of the state's GHG inventory. ARB estimates the largest reductions in GHG emissions to be achieved by implementing the following measures and standards (ARB 2008):

- improved emissions standards for light-duty vehicles (26.1 MMT CO_2e),
- the Low-Carbon Fuel Standard (15.0 MMT CO_2e),
- energy efficiency measures in buildings and appliances (11.9 MMT CO_2e), and
- a renewable portfolio and electricity standards for electricity production (23.4 MMT CO_2e).

In 2011, ARB adopted the cap-and-trade regulation. The cap-and-trade program covers major sources of GHG emissions in the state such as refineries, power plants, industrial facilities, and transportation fuels. The cap-and-trade program includes an enforceable emissions cap that will decline over time. The State distributes allowances, which are tradable permits, equal to the emissions allowed under the cap. Sources under the cap are required to surrender allowances and offsets equal to their emissions at the end of each compliance period (ARB 2013).

With regard to land use planning, the Scoping Plan expects that reductions of approximately 3.0 MMT CO_2e will be achieved through implementation of Senate Bill (SB) 375, which is discussed further below (ARB 2008).

Executive Order S-1-07

Executive Order S-1-07, which was signed by Governor Schwarzenegger in 2007, proclaims that the transportation sector is the main source of GHG emissions in California, at over 40 percent of statewide emissions. It establishes a goal that the carbon intensity of transportation fuels sold in California should be reduced by a minimum of 10 percent by 2020. This order also directed ARB to determine whether this Low Carbon Fuel Standard could be adopted as a discrete early action measure after meeting the mandates in AB 32. ARB adopted the Low Carbon Fuel Standard on April 23, 2009.

Advanced Clean Cars Program

In January 2012, ARB approved a new emissions-control program for model years 2017 through 2025 of passenger vehicles and light-duty trucks that addresses emissions from passenger vehicles and light-duty trucks. In addition to establishing more stringent emission standards for both GHGs and criteria air pollutants (and precursors), the program increases requirements of manufacturers to produce more Zero Emission Vehicles, including battery electric vehicles, hydrogen fuel cell vehicles, and plug-in hybrid electric vehicles. The program also includes a Clean Fuels Outlet regulation that helps make sure that fuels such as electricity and hydrogen are available to meet the fueling needs of the new advanced technology vehicles as they come to market. More specifically, it requires major refiners/importers of gasoline to develop hydrogen fueling stations to meet demand for hydrogen fuel (ARB 2011b).

Senate Bill 1368

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (CPUC) to establish a GHG performance standard for baseload generation from investor-owned utilities by February 1, 2007. CEC was required by SB 1368 to establish a similar standard for local publicly owned utilities by June 30, 2007. These standards could not exceed the GHG emission rate from a baseload combined-cycle natural gas–fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the CPUC and CEC.

Renewable Portfolio Standard

SB 1078 (Chapter 516, Statutes of 2002) requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their electricity supply (portfolio) from renewable sources by 2017. SB 107 (Chapter 464, Statutes of 2006) changed the target date to 2010. On November 17, 2008, Governor Schwarzenegger signed Executive Order S-14-08 requiring all retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020. The following year, Executive Order S-21-09 directed the California Air Resources Board, under its AB 32 authority, to enact regulations to achieve the goal of 33 percent renewables by 2020. In 2011, Governor Brown signed SB X1-2, which codified the 33 percent by 2020 standard into law.

CPUC and CEC jointly implement the statewide Renewable Portfolio Standard (RPS) program through rulemakings and monitoring the activities of electric energy utilities in the state.

SENATE BILL 97

As directed by SB 97, the Natural Resources Agency adopted amendments to the State CEQA Guidelines for GHG emissions on December 30, 2009. On February 16, 2010, the Office of Administrative Law approved the amendments, and filed them with the Secretary of State for inclusion in the California Code of Regulations. The amendments became effective on March 18, 2010.

SENATE BILL 375

SB 375, signed in September 2008, aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires Metropolitan Planning Organizations (MPOs) to adopt a Sustainable Communities Strategy (SCS) or Alternative Planning Strategy (APS), which will prescribe land use allocation in that MPO's Regional Transportation Plan. ARB, in consultation with MPOs, will provide each affected region with reduction targets for GHGs emitted by passenger cars and light trucks in the region for the years 2020 and 2035. These reduction targets will be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets. ARB is also charged with reviewing each MPO's SCS or APS for consistency with its assigned targets. If MPOs do not meet the GHG emission reduction targets, transportation projects would not be eligible for funding programmed after January 1, 2012.

In April 2012, the Sacramento Area Council of Governments (SACOG) adopted the Metropolitan Transportation Plan/Sustainable Communities Strategy 2035, in compliance with SB 375. SACOG's GHG reduction targets for passenger cars and light trucks are set at 7 percent per capita below 2005 levels by 2020 and 16 percent per capita below 2005 levels by 2035 (ARB 2012).

CALIFORNIA BUILDING CODES, TITLE 24

Title 24 of the CCR regulates how each new home and business is built or altered in California. It includes requirements for the structural, plumbing, electrical, and mechanical systems of buildings, and for fire and life safety, energy conservation, green design, and accessibility in and about buildings. Two sections of Title 24 – Part 6, the California Energy Code, and Part 11, the California Green Building Standards Code or CalGreen Code – contain standards that address GHG emissions related to construction.

These two sections require direct electricity, natural gas, and water savings for every new home or business built in California. Part 6, which was last updated in January 2011, also includes requirements for lighting, insulation and equipment upgrades to residential and nonresidential buildings undergoing additions, alterations or repairs. CCR Title 24 codes are statewide codes and standards that must be enforced by local agencies through the construction application process.

The California Green Building Standards Code, or CalGreen, became a mandatory code beginning January 1, 2011. The code takes a holistic approach to green building by including minimum requirements in the areas of planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. The CalGreen code has minimum mandatory standards and two additional tiers of voluntary measures intended to achieve greater levels of efficiency that result in lower levels of GHG emissions. Local governments must enforce the minimum standards and can choose to adopt either Tier 1 or Tier 2 standards to achieve greater positive environmental impacts.

Mandatory CalGreen standards do not require explicit reductions in energy consumption beyond the minimum Title 24 Part 6 standards. However, if a local agency elects to adopt either of the optional tiers of CalGreen, additional prerequisites and electives must be implemented by new development projects. For the voluntary energy efficiency prerequisites, Tier 1 is a 15 percent and Tier 2 is a 30 percent improvement over minimum Title 24 Part 6 requirements.

LOCAL

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Chapter 6 of the Sacramento Metropolitan Air Quality Management District (SMAQMD) CEQA Guide to Air Quality Assessment (SMAQMD 2013) outlines expectations and methodologies for the analysis of GHG emissions, and guidance on determining the significance and appropriate mitigation. SMAQMD recommends that both construction and operations-related GHG emissions be quantified for a proposed project, and that the significance of GHG emissions be determined in a manner based on whether such emissions are cumulatively considerable. SMAQMD also recommends that any thresholds of significance for GHG emissions be related to AB 32's GHG reduction goals, and supported by substantial evidence.

CITY OF SACRAMENTO 2030 GENERAL PLAN

The City of Sacramento identified multiple goals, policies, and implementation programs in its 2030 General Plan that are relevant to climate change and GHG emissions in Appendix B of the General Plan document (City of Sacramento 2009) including, notably, the following policies:

- **Policy ER 6.1.7 Greenhouse Gas Reduction Goal.** The City shall work with the California Air Resources Board to comply with statewide greenhouse gas reduction goals as established in the Global Warming Solutions Act of 2006 for 2020 and any subsequent targets.
- **Policy ER 6.1.9 Greenhouse Gas Reduction in New Development.** The City shall reduce greenhouse gas emissions from new development by discouraging auto-dependent sprawl and dependence on the private automobile; promoting water conservation and recycling; promoting development that is compact, mixed use, pedestrian friendly, and transit oriented; promoting energy-efficient building design and site planning; improving the jobs/housing ratio in each community; and other methods of reducing emissions.

CITY OF SACRAMENTO CLIMATE ACTION PLAN (PHASES I AND II)

In accordance with the above-referenced 2030 General Plan policies and associated implementation programs, the City of Sacramento has adopted two Climate Action Plan (CAP) documents, which are summarized below:

- The City's municipal operations CAP (Phase I) was adopted in 2010, which sets a GHG emissions reduction target of 15 percent below 2005 levels by 2020 for municipal operations and identifies specific measures and programs designed to achieve the target, including energy efficiency retrofitting and installing renewable energy in City-owned buildings and facilities, improving the efficiency of the City's vehicle fleet, improving the efficiency of water and wastewater pumping activities, retrofitting traffic signals and streetlights with high-efficiency technology, and other actions (City of Sacramento 2010).
- In 2012, the City adopted a communitywide CAP (Phase II). The Phase II CAP identified a GHG reduction target of 15 percent below 2005 levels by 2020 for communitywide emission sources, and also set longer-term communitywide GHG emission reduction goals of 38 percent below 2005 levels by 2030 and 83 percent below 2005 levels by 2050. The Phase II CAP contains a comprehensive set of strategies, measures and implementing actions to achieve the 2020 GHG reduction target. The GHG reduction measures and actions apply to both existing sources within the City as of the 2005 baseline and projected emissions from new growth and development anticipated in the 2030 General Plan. The Phase II CAP also identifies potential adverse physical effects related to climate change on the community, and includes specific adaptation measures to address and mitigate such effects (City of Sacramento 2012).

The Phase II CAP is consistent with elements of a plan for the reduction of GHG emissions, in compliance with Section 15183.5 of the CEQA Guidelines, which provides for tiering and streamlining of GHG emissions analysis for projects consistent with a CAP or other similar programmatic plan for the reduction of GHG emissions. The City has prepared a Climate Action Plan Consistency Checklist for use in determining project consistency with the Phase II CAP pursuant to Section 15183.5.

5.4.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Short-term construction-related and long-term operation-related impacts (regional and local) were assessed in accordance with SMAQMD-recommended methodologies (SMAQMD 2013). GHG emissions were modeled using the California Emissions Estimator Model (CalEEMod) Version 2011.1.1 computer program, which estimates construction and operations emissions of both criteria pollutants and GHG emissions. Project-generated GHG emissions were modeled based on information provided in the project description and trip generation from the transportation analysis prepared for this project (Kittelson & Associates 2013). As discussed above, GHG impacts related to global climate change are

inherently cumulative. Therefore, the following impact discussions analyze the proposed project's potential contribution to the cumulative climate change effect.

Demolition and Construction

The proposed project would include demolition of the existing hospital buildings, site grading, trenching, paving, building construction, and application of architectural coatings. Demolition and construction activities were assumed to be completed over a period of approximately two years between 2014 and 2016. GHG emissions would not differ substantially if construction were to begin at a later time.

During construction of the proposed project, GHG emissions would be generated temporarily and intermittently, associated primarily with exhaust emissions from heavy off-road equipment, on-road trucks, and construction employee vehicle trips. Construction emissions were estimated using emission factors contained in CalEEMod, based on information contained in the project description (e.g., project footprint) and model default settings where project-specific information was not available. Assumptions used to estimate construction-generated GHG emissions are worst-case, intended to establish an upper bound for GHG emissions that would occur associated with full build-out of the proposed project.

Existing Hospital and Proposed Project Operations

Operational emissions from area-wide, energy, mobile, waste and water-related sources were estimated for both existing hospital operations and the proposed project using CalEEmod. The existing operational baseline year was 2012, while the earliest full operational year for the project of 2017 was selected based on an estimated construction completion date of mid-2016.

Sources of GHG emission associated with existing hospital operations include energy consumption in the form of electricity and natural gas to heat and cool buildings, generate hot water, indoor and outdoor lighting, and provide power to various forms of equipment; mobile sources from vehicle trips associated with the hospital including hospital employees, visitors, delivery vehicles, maintenance vehicles, and other vehicles; waste-related emissions associated with disposal or solid waste generated by the hospital in landfills; and water-related emissions associated with pumping, distribution, and treatment of project-related water consumption and wastewater discharges.

Long-term operational emissions of GHG emissions associated with implementation of the proposed project would occur from area, energy, mobile, waste, and water-related activity tied to the proposed residential and mixed-uses on the site. Area sources include emissions from fireplaces and landscaping equipment; energy-related sources include natural gas consumption for space and water heating and electricity generated at off-site power generation facilities serving the project; mobile sources include vehicle trips associated with residents or and visitors to the project area; waste-related emissions are associated with disposal of solid waste generated by the project in landfills; and water-related emissions are associated with pumping, distribution, and treatment of project-related water consumption and wastewater discharges.

STANDARDS OF SIGNIFICANCE

For the purpose of this analysis, the following qualitative threshold of significance has been used to determine whether implementation of the proposed project would result in significant GHG or climate change impacts:

A GHG or climate change impact is considered significant if the proposed project would:

- Demonstrate inconsistency with the City's Climate Action Plan.

Section 15183.5 of the CEQA Guidelines provides for tiering and streamlining of GHG emissions analysis for projects consistent with a CAP or other similar programmatic plan for the reduction of GHG emissions. The City's Phase II CAP is consistent with elements of a plan for the reduction of GHG emissions, in compliance with Section 15183.5 (b). The City has also developed a CAP Consistency Review Checklist that identifies specific actions in the City's CAP that apply to development projects undergoing CEQA review. As noted in 15183.5, "a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances." Therefore, if a project undergoing CEQA review complies with all applicable provisions in the CAP Consistency Review Checklist, it is considered to be consistent with the CAP, and any impacts with respect to GHG emissions are considered less than significant.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.4-1	**Project-generated greenhouse gas emissions.** The proposed project would generate GHG emissions during short-term construction and long-term operation that would not be cumulatively considerable because the proposed project is consistent with the City's Climate Action Plan. This impact would be considered **less than significant**.

The proposed project would result in GHG emissions during construction (short-term) and operation (long-term). GHG emissions from construction and operation are described separately below.

SHORT-TERM CONSTRUCTION-RELATED EMISSIONS

As shown in Table 5.4-1 below, construction (including demolition) of the proposed project would result in approximately 1,897 MT CO_2e over the two-year construction period (see Appendix C for detailed model output). However, construction would occur over a finite period of time (two years), and then all construction-related GHG emissions would cease. The construction phase would not be the dominant source of GHG emissions from the project. In addition, consistency with the City of Sacramento CAP Consistency Review Checklist incorporates a measurement of GHG emissions from all sources (construction and operations). Please see the discussion below regarding the CAP consistency review.

Table 5.4-1 Summary of Construction-Generated Greenhouse Gas Emissions	
Construction Phase	Total MT CO_2e
Demolition[1]	474
Grading	118
Trenching and Paving	299
Building and Park Construction	1,006
Total GHG Emissions (all phases)	**1,897**

Notes: MT = metric tons, CO_2e = carbon dioxide equivalent. Totals may not be exact due to rounding.
[1] Construction-related GHG emissions shown assume on-site crushing and reuse during the demolition phase and are considered worst-case, compared to off-site hauling and off-site crushing.
See Appendix C for CalEEMod modeling results.
Source: Data modeled by Ascent Environmental in 2013.

Long-Term Operation-Related Emissions

Both existing hospital and proposed project operational GHG emissions are summarized below in Table 5.4-2 (see Appendix C for detailed model output). Current operation of the existing hospital results in approximately 16,133 MT CO_2e per year, based on an estimate for the baseline year of 2012.

Table 5.4-2 Summary of Greenhouse Gas Emissions from Existing Baseline Operations and Proposed Project		
Source[1]	Existing Hospital Operations[1] [MT CO_2e/year]	Proposed Project Operations[2] [MT CO_2e/year]
Area	0	2
Energy	5,877	479
Mobile	7,770	2,186
Waste	2,341	57
Water	145	27
Total Operational Emissions	**16,133**	**2,751**

Notes: CO_2e = carbon dioxide equivalent; MT = metric tons.
[1] The existing hospital operations were modeled for the most recent full calendar year for which area, energy, mobile, waste and water is available (2012).
[2] Proposed project operations were modeled for operational year 2017, the earliest assumed year of full project buildout and operation. Results shown are unmitigated, assuming only compliance with minimum requirements in the building code and no additional GHG mitigation.
Totals may not sum exactly due to rounding.
Source: Ascent Environmental, Inc., 2013.

As shown in Table 5.4-2, operations of the proposed project at full build-out would result in unmitigated operational GHG emissions of approximately 2,751 MT CO_2e per year, which would be approximately 83 percent less than annual GHG emissions from operation of the existing hospital. While the net decrease represents a substantial decrease based on a simple comparison of GHG emission originating from the project site alone, operational GHG emissions from the current hospital are not likely to be fully reduced as a result of the proposed project. Following decommissioning of the hospital, health care services currently provided at Sutter Memorial Hospital will be shifted to the Sutter Medical Center's (SMC) new Women's and Children's Center and could still generate GHG emissions. Although

several sections of the previous SMC Project EIR analyzed potential impacts of the SMC facilities as new (see the discussion in Chapter 5.0, “Introduction to the Analysis,” of this Draft EIR), the SMC Project EIR did not analyze potential climate change impacts. Therefore, a net reduction in operational GHG emissions cannot be assumed as the result of the proposed project, and any operational emissions from the proposed project are thus considered to be net new emissions for the purpose of this analysis. When compared with construction emissions, operational GHG emissions from the proposed project would continue to be released into the atmosphere for decades beyond the first year of full build-out and represent a substantial contribution in emissions that could be cumulatively considerable.

Climate Action Plan Consistency Review

The City’s Climate Action Plan addresses GHG emissions from new development under the 2030 General Plan, including residential and mixed-use, and includes GHG reduction measures and specific actions to reduce those emissions. As noted in CEQA Guidelines 15183.5 (b), “a lead agency may determine that a project’s incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.” The proposed project has been reviewed against the City’s CAP Consistency Review Checklist (see Appendix E for the completed CAP Checklist and supporting documentation). The proposed project would be consistent with all applicable performance standards specified in the CAP Consistency Review Checklist, including:

- Substantial consistency with the 2030 General Plan;
- Reduction of vehicle miles traveled per capita by 35 percent compared to the statewide average;
- Incorporation of traffic calming measures;
- Incorporation of pedestrian facilities and connections to transit consistent with the Pedestrian Master Plan;
- Incorporation of bicycle facilities consistent with the Bikeway Master Plan;
- Exceed the 2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Code) by 15 percent; and
- Compliance with minimum CALGreen Tier 1 Water Efficiency Standards.

As discussed above, the City of Sacramento adopted a communitywide CAP (Phase II) that contains a comprehensive set of strategies, measures and implementing actions to achieve the 2020 GHG reduction target. The Phase II CAP is consistent with elements of a plan for the reduction of GHG emissions, in compliance with Section 15183.5 of the CEQA Guidelines, which provides for tiering and streamlining of GHG emissions analysis for projects consistent with a CAP or other similar programmatic plan for the reduction of GHG emissions. Because the proposed project would be consistent with the Phase II CAP, this impact would be considered **less than significant**.

Mitigation Measure 5.4-1

No mitigation is required.

5.5 CULTURAL RESOURCES

Cultural resources are defined as historical, architectural, archeological, and paleontological elements that are listed or have been determined eligible for listing on the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), or the City of Sacramento's Register of Historic and Cultural Resources (Sacramento Register). This section discusses known historic and prehistoric resources in the Sutter Memorial Hospital vicinity and the potential for unknown resources to exist. This section also assesses potential adverse impacts on paleontological resources that could result from the proposed project.

The primary source of information referenced for this section is the *Sutter Memorial Hospital Cultural Resources Report*, prepared by Historic Environment Consultants. No comment letters were received in response to the NOP regarding cultural resources (see Appendix B).

5.5.1 ENVIRONMENTAL SETTING

The proposed project site is located in East Sacramento and is bordered by 51st Street to the north, single-family homes on E Street and Coloma Way to the west, F Street to the south, and single-family homes and a professional and medical offices complex to the east. The American River is located approximately one mile to the north and east.

REGIONAL PREHISTORY

The Sacramento Delta was one of the first regions in California to attract intensive archaeological fieldwork. The first settlements in the Sacramento Valley likely occurred during the late Pleistocene and early Holocene (14,000 to 8,000 Before Present) period. Sacramento's location within a great valley and at the confluence of two rivers, the Sacramento River and the American River, shaped its early and modern settlements. It is highly likely that Paleo-Indian populations occupied the region with villages located near watercourses. However, the archaeological record of such use is sparse, probably due to recurring natural flood events.

ETHNOGRAPHY

Native American settlement in the Sacramento area began roughly 12,000 years ago. The Nisenan were attracted to the area by its year-round water supply and the food sources it provided, including game, fish, seeds, and nuts. The Nisenan hunting and gathering culture survived longer than other California tribes because of their relative isolation from the Spanish mission system along the coast.

The proposed project lies in the territory attributed to the Nisenan tribe, a branch of the Maidu group of the Penutian language family. Tribes of this language family dominated the Central Valley, San Francisco Bay area, and western Sierra Nevada foothills when European immigrants first arrived. The Nisenan controlled the drainages of the Yuba, Bear, and American rivers, along with the lower portion

of the Feather River. The tribes of this whole region referred to themselves as Nisenan, meaning "people," in contrast to the surrounding tribes, in spite of close linguistic and cultural similarities. For this reason, they are usually named by this term rather than the more technical "Southern Maidu." The local main village was of more importance to the people than the tribal designation, and groups identified themselves by the name of the central village.

REGIONAL HISTORY

While the Mexican Government occupied the region in the 1820s, the formal founder of the City of Sacramento is John Sutter, Jr. John Sutter arrived at the confluence of the Sacramento and American Rivers in 1839, settling in what was at the time Nisenan territory. The knoll on which Sutter placed his fort was an Indian mound. Beginning in 1824, under Mexican rule, land in California was divided into large parcels referred to as ranchos or Mexican land grants. In 1839 the first settlement in the Sacramento area, New Helvetia, was granted to John Sutter. By 1846, eight land grants were claimed in the region.

In 1848, Sutter hired William Warner to conduct a survey, which imposed a grid pattern on the land east of the riverfront with north-south streets designated by numbers and east-west streets by letters of the alphabet. This original grid, which survives today, extended east from the Sacramento River (Front Street) to just beyond the Fort and south from Sutter's Slough (at approximately 6th and I streets) to where Broadway is today. After the discovery of gold in 1849, Sacramento became the "gateway" to the gold fields, and mining and the business of supplying miners served as the basis for the City's early economy. The City was founded in 1849 and is the oldest incorporated city in California. Following the conclusion of the Mexican-American war of 1848, California was annexed by the United States on September 9, 1850. The City's location along the river ports and later the railroad played a prominent role in making Sacramento the principal mining, commercial, agricultural processing, and transportation center for the Central Valley and drew people to the area. In 1854, Sacramento became the State capitol.

EAST SACRAMENTO

In 1900 Sacramento had a population of 29,282 and by 1940 it was 105,958, an increase of 362 percent. Growth in East Sacramento was enabled by a growing population and improvements in the transportation system that allowed people to live further from their workplace. The trolley-car system eventually extended out to 46th Street. The ride from 7th & J Streets has been reported to be about 20 minutes—which made it a comfortable commute. Automobile ownership was becoming affordable to a larger portion of the population. Jobs were moving further out from the central district as well.

In 1911 as the result of a local election, Sacramento annexed East Sacramento, Oak Park, Elmhurst and the South Area as far as Sutterville Road. Following annexation the City promptly provided urban services to Oak Park, such as paved streets, street lighting, sewers and storm drainage. These services would become available to East Sacramento in later years. Real estate developers made buying lots or cottage-style homes easy and affordable. Some developers were selling lots for around $125. To obtain one of these lots required only $10 down and a payment of $5 per month. Around the same time, Wright & Kimbrough (W&K) Company were selling completed cottages for $100-$500 down with monthly

payments ranging from $20-$25. W&K was the largest developer in Sacramento at the time and they developed a large portion of East Sacramento. Their most notable development was Tract No. 24 which is known today as “The Fabulous Forties” where many large homes were built by well-known and wealthy Sacramento residents. W&K also developed several tracts in the vicinity of Sutter Memorial Hospital.

SUTTER MEMORIAL HOSPITAL

The devastating international1918 influenza pandemic generated awareness of the need for new hospitals in the community. Doctors, medical personnel and civic leaders met to discuss and plan solutions for the lack of hospitals and medical care facilities. These efforts resulted in the formation of Sutter Hospital organization and the construction of Sutter General Hospital at 28th and L Streets in 1923.

In 1925 Mercy Hospital became the first major hospital in East Sacramento, located on J Street at 40th Street. The hospital became a job provider and thus a spur to localized development. The factors that drew Mercy Hospital and Sutter Memorial into East Sacramento were somewhat the same as the factors that drew developers and prospective homeowners. Transportation was available, as were City services such as paved streets, street lighting, storm and sewerage drainage. Also, land was relatively inexpensive.

More medical facilities were needed, and the leaders of Sutter General Hospital’s management proposed a unique solution. They proposed a hospital for just the birth and maternity needs of child-bearing patrons. It would be an additional arm of the Sutter Hospital organization but located in a separate facility away from the traffic and noise of the ‘City,’ in a calm, somewhat rural, and affordable environment suitable for infants. Although this type of ‘satellite’ facility had been implemented in some areas in the east, the concept was highly unusual to the west. The free-standing maternity hospital would be the first of its kind in California and the second west of the Mississippi.

On June 24, 1936, the president of the Sutter Hospital board of trustees announced the purchase of land at 52nd and F Streets for a maternity hospital. Dr. F.N. Scatena proposed the property as a site for a new fifty bed, fireproof, air-conditioned maternity hospital. He stated that the building would be two stories tall and divided into four divisions of twelve or more beds, each with complete nursing facilities. Filtered air, humidity control and even temperature would be provided and maintained in the nurseries. Plate glass partitions would enable relatives and friends to view the babies without disturbing them. Delivery rooms, accompanying surgery, X-ray and other facilities would be of the latest design. Also, the removal of the maternity ward from Sutter General Hospital would provide more room in that facility, space much needed for expansion.

The neighborhood around the proposed maternity hospital was a mix of vacant farmland and small residences at the time of the hospital’s construction in 1936, but developed fairly quickly after the construction of the hospital. A new neighborhood took root on quiet tree-lined streets that now surround the hospital. The construction of the Maternity Hospital was completed in 1937, and it was widely hailed as a noted example of modern design and good medicine. In 1939, the West Wing was added to the building, adding twenty-two beds to the hospital.

Expansion

Hospital needs for the community grew during World War II and by 1944 plans for a large expansion project at the Maternity Hospital were prepared. Increased accommodation needs for “war babies” and the growing children’s population were seen as critical. In 1950, Sutter Maternity Hospital served as birthplace of 3,874 babies, about half of the number of babies born in the entire City during the year.

Expansion finally occurred in the early 1950s, but by 1952 was insufficient and the demand for hospital rooms in Sacramento was greater than before. Community leaders and members coalesced to establish the Sutter’s Hospital’s Memorial Fund Foundation for the purpose of fund-raising to allow substantial expansion of the Maternity Hospital facility. The fund-raising resulted in a large new expansion by 1956, the renaming of the hospital to Sutter Memorial Hospital, and the addition of a variety of new medical departments, such as psychiatric and diagnostic units, in addition to the original maternity focus.

From 1967 to 1969, a seven story East Wing was added. In 1975, a Pacemaker Clinic and the Radiation Oncology Center were established at the hospital. In 1985, a North Wing with one hundred thousand feet was added at the rear of the hospital. By 1987, the 50-year old hospital had grown into a 378 bed, tertiary-care facility with specialized centers of excellence in cardiology, perinatology, oncology and pediatrics.

A number of “firsts” have occurred at the hospital throughout its history, including the region’s first successful open-heart surgery (1958), the nation’s first Smeloff-Cutter heart valve surgery (1961), Northern California’s first inpatient treatment program for children with psychiatric problems (1971), the region’s first successful heart transplant (1989), the first in the area to make available a new insulin pump for its diabetic outpatients (1999) and the first ventricular assist device to save the lives of patients with heart failure (2006).

RECORDS SEARCH

NCIC RECORDS SEARCH

A confidential records search for the project site and a surrounding one-mile radius was conducted by Ascent Environmental, Inc. at the Northern California Information Center (NCIC) on March 6, 2013 (NCIC Records Search Number SAC-13-34). The search included a review of the NRHP, the California Historic Resources Inventory, records of previously recorded cultural resources, records of previous field studies, and other historic maps and documents. The records search did not identify any previous archaeological reports or previously recorded prehistoric or historic-era cultural resources on the project site. The records search identified 32 previously recorded prehistoric or historic-era cultural resources and 31 archaeological studies within a one-mile radius of the project site. In addition, a search of the Sacramento Register did not reveal any recorded cultural resources on the project site.

Native American Consultation and Other Interested Parties

A search of the Native American Heritage Commission (NAHC) sacred lands database was requested by Ascent Environmental, Inc. on March 6, 2013 to determine if any Native American cultural resources are present in or near the vicinity of the proposed project site. A second request was submitted on April 1, 2013. As of August 2013, no response has been received.

On January 11, 2013, the City of Sacramento sent a letter to the NAHC requesting the current list of Native American tribal groups in the project area. Letters were sent to the United Auburn Indian Community of the Auburn Rancheria, Shingle Springs Band of Miwok Indians, and Tsi-Akim Maidu for input on the proposed project. As of August 2013, only Daniel Fonseca of the Shingle Springs Band of Miwok Indians has responded, requesting consultation with the City.

Built Environment Survey

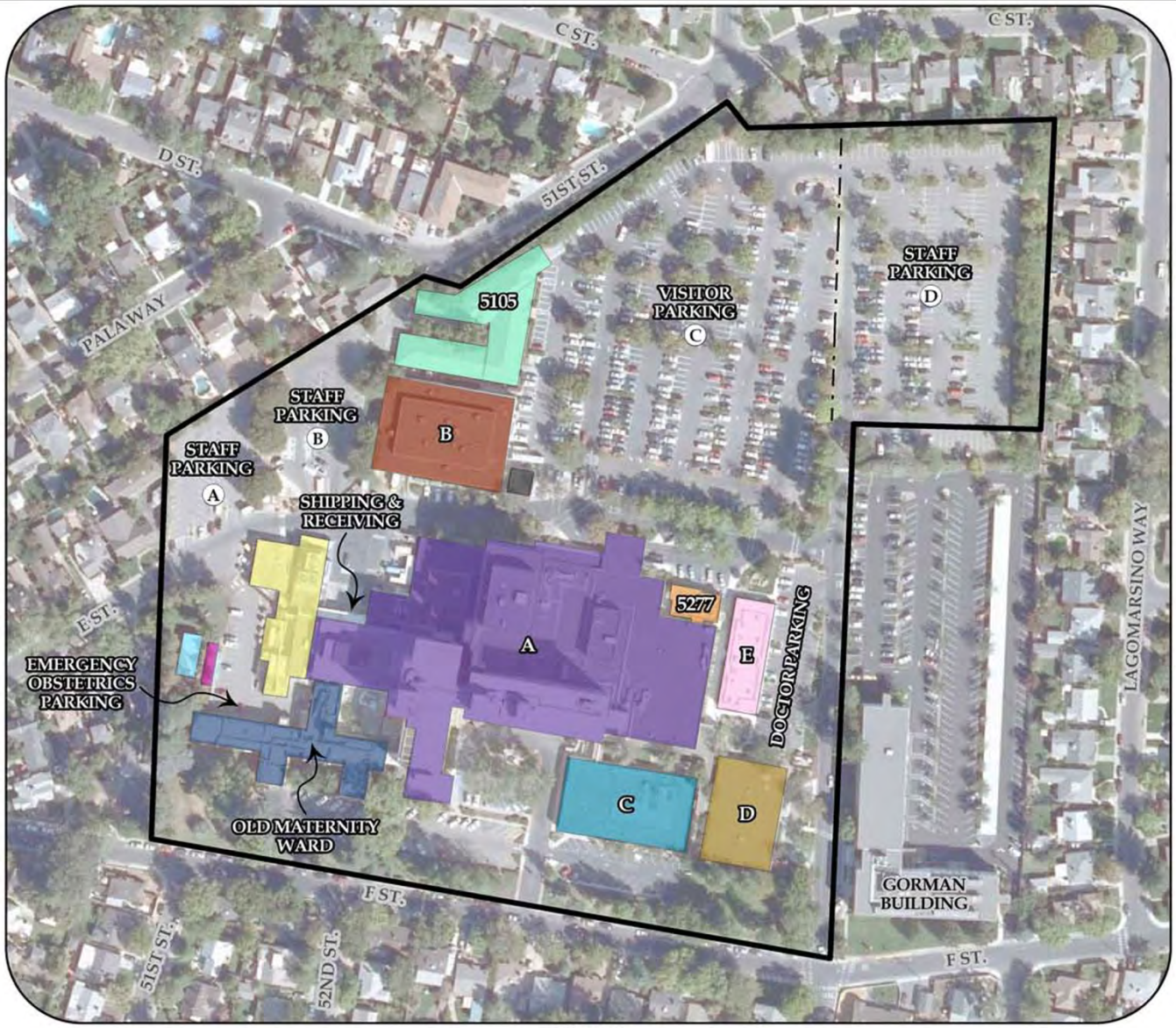
Site visits were conducted by Historic Environment Consultants on November 9, 2012, December 18, 2012, February 14 and 26, 2013, and March 28, 2013. The surveyors took extensive photographs of the buildings and structures associated with the Sutter Memorial Hospital site. The following discussions include descriptions of the existing buildings and structures. For a discussion of the properties' eligibility for listing in the NRHP, CRHR, or the Sacramento Register, please see the "Methods of Analysis," below.

Descriptions of the Sutter Memorial Hospital Property

The Sutter Memorial Hospital property is comprised of several buildings that have been added to the hospital site over time (see Exhibit 5.5-1). The following provides a description of each of those buildings and additions to present a chronology of the development of the hospital.

The Architects

Charles Dean, of Dean & Dean, considered a master Sacramento region architect, was chosen to design the innovative new hospital facility. Dean's design for the new facility may have been influenced by some of the evolving new architectural styles being widely published, since his architectural proposal reflects a design quite different from the general body of his work. His previous architectural designs often included historic residential motifs with English and French influences, and his larger buildings, with Mediterranean influences such as the Westminster Church and the Memorial Auditorium. The Maternity Hospital design reflects later stylistic influences such as Art Deco and Moderne styles. In this project, Dean chose to employ elements of the newer designs with his use of simple flat-roofed box forms and smooth wood- formed concrete walls with applied two- story fluted pilaster panels flanking windows and doors.



LEGEND:

Building A: Main Hospital
- Registration
- Maternity Admissions
- Stroke and Heart Center
- Surgery Center

Building B: Clinical Equipment Management Program
- Biomedical Engineering Center
- Medical Physician Center
- Sutter Health Maintenance Management Program
- Clinical Asset Management Program

Building C:
- Childrens Outpatient
- Cystic Fybrosis Center
- Childbirth Education
- Lactation Station
- Diabetes Care Center

Building D:
- Childrens Specialist Surgery
- Pediatric Hematology
- Pediatric Oncology
- Pediatric Surgery
- Pediatric Heart Surgery

Building E:
Adult Diabetes
Pediatric Audiology
Rehab Services Center

5105: The Sharing Place
Lodging for out of town pediatric and adult cancer patients and their families, in addition to other families receiving medical care at any Sacramento Hospital.

Old Maternity Ward

5277: MRI Center

Speciality Services Trailer

Conference Room Trailer

Generator Building

Plant Operations and Maintenance
- Paint Shop
- Boilers
- Chillers

Orthophoto Provided by Digital Globe (Sept. 2008)

0 100 200 Feet

DISCLAIMER:

The data was mapped for assessment purposes only. No liability is assumed for the accuracy of the data shown.

STONEBRIDGE PROPERTIES, LLC

Source: Received from Stonebridge Properties in 2013

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Exhibit 5.5-1 **Sutter Memorial Hospital Site**

Architects Starks, Jozens, and Nacht, with input from the consulting firm Stone, Mulloy, Marraccini, and Patterson, were essentially responsible for the modifications to the hospital that began around 1955. Leonard Starks was a native of California, born in Healdsburg in 1891. He came to Sacramento in 1921 and earned his first major commission to design and build the Senator Theater. Starks soon became a partner of a well-known Sacramento architect, E.C. Hemmings. Their firm was retained by the Elks Lodge in 1923 to begin preliminary sketches for their new building at 11th and J Streets. After Hemmings died in June of 1924, Starks took in another partner, Edward F. Flanders. Starks & Flanders had a long and distinguished career in Sacramento and the firm designed many well-known buildings including: the Alhambra Theater, Arnold Brothers Auto Agency, Clunie Club House and Pool, C.K. McClatchy High School, Sacramento County Courthouse, and the U.S. Post Office, Sacramento.

By the time the firm became involved in design work for Sutter Memorial Hospital, the firm had evolved into Starks, Jozens and Nacht. Their additions were not created as buildings on their own, but to coordinate and extend the needed hospital services. The composition of the added structures was determined by the new functions that were needed for the operation of the hospital.

Original Sutter Maternity Hospital Building

Originally, the Maternity Hospital was a simple functional structure, almost symmetrical and boxlike with a flat roof. The two-story building was constructed of board-formed concrete. It was essentially ‘U’ shaped with a center east/west portion containing the entrance, flanked by two wings extending to the south. Another wing extended to the north from the middle of the center section. Decorative two-story concrete panels containing a pattern of vertical flutes flank the windows and entry. The cornice is a continuous short band of concrete containing the concave ‘reed’ pattern with wider circumference than the fluted pattern of the two-story panels. Paired windows are joined in the center with vertical reeded wood molding. The windows are double hung with wood sash and slightly recessed from the surface of the building.

A small two-story square segment of the building containing a stairwell projects from the north elevation near the intersection of the North Wing. An exterior metal-framed ramp is attached at the rear (north elevation) of the east end of the hospital to allow wheelchair access to the ground from second floor. The main entry is flanked by sections of glass block and covered by a canopy with rounded corners. The concrete walls on either side of the glass block are scored with a version of the ‘reeded’ pattern. The wing extending to the north also contained a dining room as well as offices and an examination room. It now provides access to the plant and other sections of the hospital. The public entrance to this northern wing lies at its intersection with the main east/west body of the original hospital and is covered by a canopy with rounded corners like that of the façade.

The current appearance of the building is altered by large metal heat/air shafts that wrap around it and access all of the rooms through their windows. Scuppers have been covered and drains installed on the building surface. In 1939, a wing to the west was constructed that matched the rest of the building. There is a visible trace of this expansion with a vertical crack in a northern elevation wall and cornice indicating the connection of the western section.

"Building" A

The first major additions to the original hospital occurred over time within the Building A area, the Main Hospital. In 1955, the Center Wing was constructed, and three floors added to the northeast of the original building. An addition including the Partial East Wing (2 floors), Dietary Department, Basement, Plant Room, and Surgery Wing were added to the rear and east of the original building. These additions were constructed of reinforced concrete with windows framed in metal sash. The Center Wing addition with its new floors appears to have a corner window projection on the penthouse facing southwest. The overall image of the additions reflects the simple forms and lack of ornament important to the International Style of architecture prominent at the time. The design was primarily functional and not intended to relate or contribute to the original hospital image. It is difficult to discern the boundaries of the additions from those that occurred somewhat later.

In 1959, the 4th, 5th, 6th, and 7th floors were added to the Center Wing. These additions were constructed of concrete and steel materials and design to match the 1955 addition. These became the dominant features of the hospital with their penthouse roofs projecting above recessed banks of windows. In 1961, an expansion including the $1.25 million, four-story addition begun in the late 1950s was completed. In 1964, a diagnostic treatment facility was added. While the hospital mass grew by floors, the exterior surface treatment and design were not distinctive and the whole appears as a mixed group of simple rectangular forms with generally the same materials and monochromatic, rather static image.

"Building" B

Constructed in 1967, Building B was designated as the Laundry and the Clinical Equipment Bio Center. The warehouse-like building also houses the Security Office and the Sutter Heart Wellness & Cardiac Rehabilitation Center. The stucco building displays a strong horizontal emphasis, created with a wide horizontal roof fascia that surrounds the building above a band of recessed windows. The 1st floor roof just below is supported by a series of narrow vertical walls that project at right angles from the side walls of the building. This divides the building side walls into sections some of which contain flat metal doors or other openings. The building is topped by a smaller flat roof like that beneath it that covers another band of recessed windows. The vertical divisions of the 1st floor contrast with the heavy horizontal bands of roof in the final composition. There are roll-up doors and loading docks on the southwest end of the building for receiving medical equipment.

"Building" C

Building C is single-story with a flat roof and a partial basement. This 1974 building is rectangular with its length from east to west. The west façade is located on an open landscaped garden area, surrounded by a paved asphalt drive. While the south side of this courtyard is open, the center and east wings of the main building frame its north and west sides with Building C on the east. The building was originally designed to house the Radiology and Oncology units, but it currently is occupied by "Services." The building's roof system is composed of a thick horizontal band that goes completely around the building. The north and south facades are devoid of glazing, however, these sidewalls have decorative vertical grooves. The roof has a broad overhang on the east and west to protect extensive glazing on both facades from direct sunlight. The floor slab is slightly extended from the foundation to

create two horizontal bands which emphasize the long, low look of the building. The glazing extends from floor level to ceiling and is composed of uniform, vertical units of metal framed smoked glass. The main entrance to the building in the center of the west façade and it is approached by a north-south ADA compliant ramp.

"Building" D

This 1964 single-story building was originally intended to be a Child Guidance Center. It is currently devoted to pediatric specialties in Oncology, Hematology, SMF Surgery and Heart Surgery. This flat roof building has a layered cornice that creates horizontal bands that emphasize its linear design. Outboard of the exterior walls are a series of narrow vertical concrete posts that support a broad overhang that keeps midday sunlight off the window units. Window units are metal framed and extend from ground level to ceiling. One type of window unit has a shallow bay that protrudes slightly from the building. Both narrow side units and the two panels that compose that front plane emphasize a long vertical look. The other type of window unit is flush with the building surface and also extends from ground level to ceiling. However, its bottom third has metal infill panels, while top third is divided into several tall vertical panes. All glazing is smoked glass. There are entries on the center of the east and west facades of the building with the main entrance in the east façade which is accessed by a semi-circular drive. The west entry has a roof extension which connects it to a covered walkway which allows all-weather access to the east end of the East Wing of the main building. The entries have four evenly sized, metal framed, vertical glazed units with the center two being motion-activated and sliding sideways.

"Building" E

Building E was built as the Modular Medical Center in 2005. Currently it houses the Adult Diabetes Center, Pediatric, Audiology and Rehabilitation Services. This building has a flat roof and is a long, low rectangle with its length on a north-south axis. The siding is stucco and the fenestration is minimal. Windows are composed of long, narrow clerestory bands of metal framed glazing. The main entrance is in the center of the west elevation and it is composed of two roughly square units that are side by side. The panel on the north is motion-activated and slides past a fixed unit. The entrance is flanked by narrow vertically partitioned, metal-framed windows, with two units on the south and five on the north.

Sharing Place

The Sharing Place was built in 1984 and provides living accommodations for those parents who lived outside the area and had children in the hospital for an extended stay. The complex is somewhat horseshoe in shape with the exception of a wing that runs on an oblique angle on the north side to take advantage of the triangular plot that was available. It is single story, has stucco siding and a hip roof sheathed in ceramic tile shingles. Window openings are infrequent. The square, metal frame windows are horizontal sliders located in a shallow bay. The main entrance is located in a slightly recessed area in the center of the east elevation. The door unit is composed of four uniform sized glazed units with the two central units being center swinging doors. The complex is surrounded by shallow planting strips with minimal shrubbery. There is a parking strip across the front and a small parking lot in the rear.

Operations & Maintenance, Paint Shop

The Operation & Maintenance complex, which was added in 1965, contains the industrial infrastructure for the hospital HVAC and electrical systems. On its north end is the Paint Shop which is a simple one-story box built of concrete block with a flat roof. In 1967, the Laundry Building was constructed**.**

5.5.2 REGULATORY SETTING

FEDERAL

NATIONAL HISTORIC PRESERVATION ACT

Among those statutes enacted by Congress that affect historic properties, the National Historic Preservation Act of 1966 (NHPA) is the most significant law that addresses historic preservation. The NHPA established the NRHP, the official designation of historical resources. Districts, sites, buildings, structures, and objects are eligible for listing in the Register. Nominations are listed if they are significant in American history, architecture, archeology, engineering, and culture. The NRHP is administered by the National Park Service. To be eligible, a property must be significant under criterion A (history), B (persons), or C (design/construction); possess integrity; and ordinarily be 50 years of age or more.

Listing in the NRHP does not entail specific protection or assistance for a property but it does guarantee recognition in planning for federal or federally-assisted projects, eligibility for federal tax benefits, and qualification for federal historic preservation assistance. Additionally, project effects on properties listed in the NRHP must be evaluated under CEQA.

Once a heritage resource has been recorded and if it is determined to be significant, the potential impacts (or effects) of a project on a heritage property are assessed. Federal regulatory impact thresholds are contained in Section 106 of the NHPA and accompanying regulations (36 CFR [Code of Federal Regulations] Part 800). Section 106 requires that federal agencies consider the effects of their actions on significant archaeological properties prior to implementing a project or “undertaking.” The criteria of effect are found in 36 CFR 800.0(a) and state that:

> An undertaking has an effect on a historic property when the undertaking may alter characteristics of the property that may qualify the property for inclusion in the National Register.

The Advisory Council’s regulations require that the federal agency apply the criteria of adverse effect to historic properties that will be affected by a proposed undertaking (36 CFR 800.9b). An undertaking is considered to have an adverse effect when the effect on a historic property may diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association, or the quality of data suitable for scientific analysis.

STATE

CALIFORNIA REGISTER OF HISTORICAL RESOURCES

California Code of Regulations Title 14, Section 4852 addresses the types of historical resources and criteria for listing in the CRHR. The criteria for listing historical resources in the California Register are consistent with those developed by the National Park Service for listing historical resources in the National Register, but have been modified for state use to include a range of historical resources which better reflect the history of California. Only resources which meet the criteria as set out below may be listed in or formally determined eligible for listing in the California Register.

Types of resources eligible for nomination:

> (1) Building. A resource, such as a house, barn, church, factory, hotel, or similar structure created principally to shelter or assist in carrying out any form of human activity. “Building” may also be used to refer to an historically and functionally related unit, such as a courthouse and jail or a house and barn;
>
> (2) Site. A site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historical, cultural, or archeological value regardless of the value of any existing building, structure, or object. A site need not be marked by physical remains if it is the location of a prehistoric or historic event, and if no buildings, structures, or objects marked it at that time. Examples of such sites are trails, designed landscapes, battlefields, habitation sites, Native American ceremonial areas, petroglyphs, and pictographs;
>
> (3) Structure. The term “structure” is used to describe a construction made for a functional purpose rather than creating human shelter. Examples of structures include mines, bridges, and tunnels;
>
> (4) Object. The term “object” is used to describe those constructions that are primarily artistic in nature or are relatively small in scale and simply constructed, as opposed to a building or a structure. Although it may be movable by nature or design, an object is associated with a specific setting or environment. Objects should be in a setting appropriate to their significant historic use, role, or character. Objects that are relocated to a museum are not eligible for listing in the California Register. Examples of objects include fountains, monuments, maritime resources, sculptures, and boundary markers; and
>
> (5) Historic district. Historic districts are unified geographic entities which contain a concentration of historic buildings, structures, objects, or sites united historically, culturally, or architecturally. Historic districts are defined by precise geographic boundaries. Therefore, districts with unusual boundaries require a description of what lies immediately outside the area, in order to define the edge of the district and to explain the exclusion of adjoining areas. The

district must meet at least one of the criteria for significance discussed in Section 4852 (b)(1)-(4) of this chapter.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Under CEQA, public agencies must consider the effects of their actions on both "historical resources" and "unique archaeological resources." Pursuant to Public Resources Code section 21084.1, a "project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." Section 21083.2 requires agencies to determine whether proposed projects would have effects on "unique archaeological resources."

"Historical resource" is defined in Public Resources Code, section 21084.1 and CEQA Guidelines, section 15064.5, subdivisions (a) and (b). The term includes any resource listed in, or determined to be eligible for listing in, the CRHR. The CRHR includes resources listed in or formally determined eligible for listing in the NRHP, as well as some California State Landmarks and Points of Historical Interest.

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be "historical resources" for purposes of CEQA unless a preponderance of evidence indicates otherwise (Public Resources Code, section 5024.1 and California Code of Regulations, Title 14, section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (Pubic Resources Code, section 21084.1 and CEQA Guidelines, section 15064.5, subdivision (a)(3)). In general, an historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

(a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(b) Meets any of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4) Has yielded, or may be likely to yield, information important in prehistory or history. (CEQA Guidelines, section 15064.5 (a)(3))

Archaeological resources can sometimes qualify as “historical resources.” (CEQA Guidelines, section 15064.5 subdivision (c)(1).) In addition, Public Resources Code 5024 requires consultation with the Office of Historic Preservation when a project may impact historical resources located on State-owned land.

For historic structures, CEQA Guidelines section 15064.5, subdivision (b)(3), indicates that a project that follows the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the Secretary of the Interior’s Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995) shall mitigate impacts to a level of less than significant. Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource’s physical identity that existed during its period of significance. Integrity is determined through considering the setting, design, workmanship, materials, location, feeling and association of the resource.

As noted above, CEQA also requires lead agencies to consider whether projects will impact “unique archaeological resources.” Public Resources Code section 21083.2, subdivision (g), states that unique archaeological resource means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- has a special and particular quality such as being the oldest of its type or the best available example of its type, and
- is directly associated with a scientifically recognized important prehistoric or historic event or person.” (Pub. Resources Code, § 21083.2, subdivision (g).)

Treatment options under section 21083.2 include activities that preserve such resources in place in an undisturbed state. Other acceptable methods of mitigation under section 21083.2 include excavation and curation or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a “unique archaeological resource”).

Advice on procedures to identify cultural resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor’s Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to, museums, historical commissions, associations and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

CEQA Guidelines Section 15064.5 (e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the NAHC must be contacted within 24 hours. At that time, the lead agency is required to consult with the appropriate Native Americans as identified by the NAHC and directs the lead agency (or applicant), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural and Sacred Sites Act applies to both State and private lands. The Act requires that upon discovery of human remains, construction or excavation activity cease and the county coroner be notified. If the remains are of a Native American, the coroner must notify the NAHC. The NAHC then notifies those persons most likely to be descended from the Native American's remains. The Act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

California Health and Safety Code

Section 7050.5 (b) of the California Health and Safety code specifies protocol when human remains are discovered. The code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

LOCAL

Sacramento City Code

Sacramento City Code Chapter 17.134, Historic Preservation, establishes the City's program, procedures, criteria, and standards for identifying, protecting, and assisting in the preservation of historic and cultural resources.

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the City of Sacramento General Plan are applicable to the proposed Sutter Park Neighborhood Project:

Goal HCR 2.1 Identification and Preservation of Historic and Cultural Resources. Identify and preserve the city's historic and cultural resources to enrich our sense of place and our understanding of the city's prehistory and history.

- **Policy HCR 2.1.2 Applicable Laws and Regulations.** The City shall ensure that City, State, and Federal historic preservation laws, regulations, and codes are implemented, including the California Historical Building Code and State laws related to archaeological resources, to ensure the adequate protection of these resources.
- **Policy HCR 2.2.15 Archeological Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological, historic, and cultural resources including prehistoric resources.

HISTORIC PRESERVATION ORDINANCE

The City of Sacramento's historic preservation program began in 1975 with the enactment of the City's first Historic Preservation Ordinance. The current Historic Preservation Ordinance (No. 2006-063) was enacted in October 2006. The purpose of the Historic Preservation Ordinance is to identify, protect, and encourage the preservation of significant resources; maintain an inventory and ensure the preservation of these resources; encourage maintenance and rehabilitation of the resources; encourage retention, preservation, and re-use of the resources; safeguard City resources; provide consistency with state and federal regulations; protect and enhance the City's attraction to tourists; foster civic pride in the City's resources; and encourage new development to be aesthetically compatible.

5.5.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

The impact analysis for historical resources, specifically buildings and structures, is based on the findings and recommendations of the report titled *Cultural Resources Report: Sutter Park Neighborhood*. The report includes building descriptions, histories, and evaluations for all of the potentially affected buildings. The impact analysis for prehistoric and historic-period archaeological resources is based on the findings and recommendations of the cultural resources records search conducted for the proposed project by the NCIC. The analysis is also informed by the provisions and requirements of federal, state, and local laws and regulations that apply to cultural resources.

HISTORIC EVALUATION

NRHP and CRHR criteria were used to evaluate the historic significance of the buildings and structures on the Sutter Memorial Hospital site. The properties were also evaluated under the criteria established in Sacramento City Code Chapter 17.134, Historic Preservation, which is similar to the CRHR. The NRHP criteria for eligibility are codified in 36 CFR Part 60 and explained in guidelines published by the Keeper of the NRHP. The NRHP, CRHR, and City Code are discussed in more detail below under "Regulatory Setting."

Eligibility for listing on the NRHP, CRHR, and the Sacramento Register rests on twin factors of significance and integrity. A property must have both significance and integrity to be considered eligible. Loss of integrity, if sufficiently great, will become more important than the historical significance a property may possess and render it ineligible. Likewise, a property can have complete integrity, but if it lacks significance, it must also be considered ineligible.

The evaluations below use the letter/number criterion references from the NRHP and CRHR, respectively, which capture the categories of Sacramento Register criteria 1 through 7. The evaluations are also based on the U.S. Department of the Interior, National Park Service Bulletin 15, How to Apply the National Register Criteria for Evaluation, which is the recognized national standard for evaluation of historic significance (U.S. Department of the Interior 2013).

Under Criterion A (1), Sutter Maternity Hospital appears to be associated with events that have made a significant contribution to the broad patterns of Sacramento's, the region's, the State's, or the nation's history as the first maternity hospital in California and the second west of the Mississippi. However, Sutter Maternity Hospital does not appear to meet criteria for listing due to somewhat limited architectural values and loss of integrity from large cumulative additions and modifications. While Sutter Memorial Hospital has been the site of numerous important medical innovations, procedures, and techniques that have improved medical science and practice, those events did not occur in the original Sutter Maternity Hospital building, but in other areas of the additive complex. Several of the additions were constructed after 1963 and are not considered historic. The additions made between 1955 and 1963 are considered historic-age, but most of the important medical achievements took place in the newer additions, not the older original structure.

Under Criterion B (2), Sutter Maternity Hospital does not represent a property associated with the life of a person important to local, California or national history. Properties that meet this criterion are associated with specific individuals who made important contributions to a community, the state, or the nation in their field of endeavor or in some specific documented manner. While the Hospital is associated with several medical "firsts," these contributions are not associated with the life of one particular person.

Under Criterion C (3), Sutter Maternity Hospital not appear to be significant because, while it is the work of a master architect, it does not represent an important example of a type, period, or method of construction, nor does it possess high artistic values. Charles Dean's work is best expressed in such works as the Westminster Church, the Memorial Auditorium, and the numerous residences and schools he completed, largely in Period Revival modes. Sutter Maternity Hospital does not represent Dean's Art

Deco/Moderne design work in Sacramento. His remodeling of the Odd Fellow's Building is an outstanding example of Art Deco/Moderne style and is a better representation of his work in this style than the hospital.

Sutter Maternity Hospital does not appear to be significant under Criterion D (4) because this criterion is usually used to evaluate historic sites and archaeological resources. Although buildings and structures can occasionally be recognized for the important information they might yield regarding historic construction or technologies, the Sutter Maternity Hospital buildings are building types that are well documented and are not a principal source of important information in this regard.

Therefore, the Sutter Memorial Hospital structures do not appear to be eligible for listing in the NRHP, CRHR, or the Sacramento Register and are not considered to be historically significant for the purposes of CEQA.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on cultural resources are considered significant if the proposed project would:

- cause a substantial adverse change in the significance of an historical resource as defined in §15064.5;
- cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5;
- disturb any human remains, including those interred outside of formal cemeteries; or
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.5-1	**Change in the significance of an historical resource.** None of the buildings that would be affected by the project are eligible for individual or district listing on the National Register of Historic Places, the California Register of Historical Resources, or the Sacramento Register of Historic and Cultural Resources. Therefore, implementation of the proposed project would not cause a substantial change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5 and this impact would be **less than significant**.

Development of the proposed project would include demolition of all buildings on the Sutter Memorial Hospital site. The buildings have not been previously identified as appearing eligible for listing in the NRHP, CRHR, or Sacramento Register. As previously discussed, a number of modifications have been made to the original Maternity Hospital since its 1937 construction. Alterations to the original building include the addition of the West Wing, the addition of the exterior two- story ramp on the northern elevation, the connection of the Northern and Central Wings to the original building, and subsequent additions that include the East Wing, the North Wing, and the plant. Large metal heat/air conditioning shafts have been added to

the original building with inserts into each window, and connecting shafts to the roof. There have been some modifications to windows to accommodate the shafts, closure of roof scuppers and installation of roof drains. The hospital complex comprising Sutter Memorial Hospital is the sum of different parts and lacks a singular concept of its own identity. The original building is still identifiable though somewhat engulfed by additions, and has experienced a number of modifications affecting its integrity.

In addition, while Sutter Memorial Hospital has achieved several medical “firsts” over time, those events did not occur in the original Maternity Hospital building, but in other areas of the additive complex. Several of the additions were constructed after 1963 and are not considered historic. The additions made between 1955 and 1963 meet NHPA’s 50-year date requirement described above in the regulatory setting, but most of the ‘special’ achievements took place in the newer additions, not the older original structure. Additionally, the architectural quality of the original building is not typical of the well-known local architect responsible for its design and appears to lack some of the expected qualities of his work which is known for its historical references, intricate detail and human scaled craftsmanship. The design of the building appears to be less successful than some of his other architectural work.

Eligibility for listing on the NRHP, CRHR, and the Sacramento Register requires that the resource contain significance and integrity, as discussed above under Historic Evaluation. None of the Sutter Memorial Hospital buildings meet this criterion. Because of this, none of the buildings that would be affected by the proposed project appear to be eligible for listing on the National Register of Historic Places, the California Register of Historical Resources, or the Sacramento Register of Historic and Cultural Resources; therefore no historic resources as defined by CEQA would be impacted, resulting in a **less-than-significant** impact.

Mitigation Measure 5.5-1

No mitigation is required.

IMPACT 5.5-2	**Disturb archaeological resources.** Implementation of the proposed project could cause a substantial change in the significance of an archaeological resource or disturb human remains. There are no known archaeological resources on the project site and the area has been highly disturbed. However, ground-disturbing activities could cause a substantial change in the significance of an as yet undiscovered archaeological resource as defined in CEQA Guidelines Section 15064.5 or disturb any human remains, including those interred outside of formal cemeteries. This is considered a **potentially significant** impact.

The Sutter Park Neighborhood project site is located in an area of high previous ground disturbance. The majority of the site is currently paved or covered with existing buildings. Given the extent of previous disturbance that has occurred on the project site for the construction of existing hospital uses and the absence of any previous archaeological reports or previously recorded prehistoric or historic-era cultural resources on the project site from the NCIC records search, the potential for impacts on significant intact archaeological resources is low, and a construction-monitoring program is not warranted. However, previous disturbance and the lack of previously recorded archaeological

resources does not preclude the possibility that significant subsurface cultural resources could be discovered during project-related grading, excavation, and other earth-moving activities during construction. Excavation is expected to reach up to 20 feet during demolition of the basement slab and related footings. Project impacts on previously undocumented significant archaeological resources or human remains are therefore considered **potentially significant**.

Mitigation Measure 5.5-2: Halt ground-disturbing activity.

1) *In the event that any prehistoric or historic-era subsurface archaeological features or deposits, including locally darkened soil ("midden"), that could conceal cultural deposits, are discovered during construction-related earth-moving activities, all ground-disturbing activity within 100 feet of the resources shall be halted and the City of Sacramento Community Development Department shall be notified. The City shall consult with a qualified archeologist retained at the applicant's expense to assess the significance of the find. If the find is determined to be significant by the qualified archaeologist (i.e., because the find is determined to constitute either an historical resource or a unique archaeological resource), representatives of the City and the qualified archaeologist shall meet to determine the appropriate course of action, with the City making the final decision. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report shall be prepared by the qualified archaeologist according to current professional standards.*

2) *If the archaeologist determines that some or all of the affected property qualifies as a Native American Cultural Place, including a Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine (Public Resources Code §5097.9) or a Native American historic, cultural, or sacred site, that is listed or may be eligible for listing in the California Register of Historical Resources pursuant to Public Resources Code §5024.1, including any historic or prehistoric ruins, any burial ground, any archaeological or historic site (Public Resources Code §5097.993), the archaeologist shall recommend to the City potentially feasible mitigation measures that would preserve the integrity of the site or minimize impacts on it, including any or a combination of the following:*

   - *Avoidance, preservation, and/or enhancement of all or a portion of the Native American Cultural Place as open space or habitat, with a conservation easement dedicated to the most interested and appropriate tribal organization. If such an organization is willing to accept and maintain such an easement, or alternatively, a cultural resource organization that holds conservation easements;*

   - *An agreement with any such tribal or cultural resource organization to maintain the confidentiality of the location of the site so as to minimize the danger of vandalism to the site or other damage to its integrity; or*

   - *Other measures, short of full or partial avoidance or preservation, intended to minimize impacts on the Native American Cultural Place consistent with land use assumptions and the*

proposed design and footprint of the development project for which the requested grading permit has been approved.

- *After receiving such recommendations, the City shall assess the feasibility of the recommendations and impose the most protective mitigation feasible in light of land use assumptions and the proposed design and footprint of the development project. The City shall, in reaching conclusions with respect to these recommendations, consult with both the project applicant and the most appropriate and interested tribal organization.*

3) *If human remains are discovered at any project construction sites during any phase of construction, all ground-disturbing activity within 50 feet of the remains shall be halted immediately, and the City of Sacramento Community Development Department and the County coroner shall be notified immediately. If the remains are determined by the County coroner to be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, and the guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains. The project applicant shall also retain a professional archaeologist with Native American burial experience to conduct a field investigation of the specific site and consult with the Most Likely Descendant, if any, identified by the NAHC. As necessary, the archaeologist may provide professional assistance to the Most Likely Descendant, including the excavation and removal of the human remains. The City shall be responsible for approval of recommended mitigation as it deems appropriate, taking account of the provisions of state law, as set forth in CEQA Guidelines section 15064.5(e) and Public Resources Code section 5097.98. The project applicant shall implement approved mitigation, to be verified by the City, before the resumption of ground-disturbing activities within 50 feet of where the remains were discovered.*

Implementation of this mitigation measure would reduce impacts associated with archaeological resources to a **less-than-significant** level because it requires the performance of professionally accepted and legally compliant procedures for the discovery of previously undocumented significant archaeological resources and human remains.

IMPACT 5.5-3	**Destroy a unique paleontological resource.** Although the City of Sacramento is not known to be highly sensitive for paleontological resources, earth-disturbing activities could potentially damage paleontological resources. This is considered a **potentially significant** impact.

According to the General Plan MEIR, the City of Sacramento and surrounding area is not highly sensitive for paleontological resources, although some discoveries have been made in the past. Earth-disturbing activities in fossil-bearing soils and rock formations have the potential to damage or destroy paleontological resources that may be present below the ground surface. Therefore, any earth-disturbing activities resulting from implementation of the proposed project could damage or destroy fossils in these rock units. Impact 6.5-5 of section 6.5, *Geology, Soils, and Mineral Resources*, of the General Plan MEIR states that paleontological resources may be present in fossil-bearing soils and rock formations below the

ground surface. General Plan Policy HCR 2.1.15 requires that if paleontological resources are discovered during excavation or construction, proper protocols shall be adhered to.

While the project site is not considered sensitive for paleontological resources and the likelihood of encountering paleontological resources is very low, project-related earth-disturbing activities could affect the integrity of a paleontological site, thereby causing a substantial change in the significance of the resource. Project impacts on paleontological resources are therefore considered **potentially significant**.

Mitigation Measure 5.5-3: Cease operation and retain qualified paleontologist.

Should paleontological resources be identified at any project construction sites during any phase of construction, the construction manager shall cease operation at the site of the discovery and immediately notify the City of Sacramento Community Development Department. The project applicant shall retain a qualified paleontologist to provide an evaluation of the find and to prescribe mitigation measures to reduce impacts to a less-than-significant level. In considering any suggested mitigation proposed by the consulting paleontologist, the Community Development Department shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, land use assumptions, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while mitigation for paleontological resources is carried out.

Implementation of this mitigation measure would reduce impacts associated with paleontological resources to a **less-than-significant** level because it requires the performance of professionally accepted and legally compliant procedures for the discovery of paleontological resources.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.5-4	**Cumulative effect on cultural resources.** The proposed project, in combination with other development in the City of Sacramento, could cause a substantial adverse change in the significance of an historical resource or unique archaeological resource as defined in §15064.5 of the State CEQA Guidelines. Project-related grading, excavation, and other earth-moving activities could potentially damage archaeological and paleontological resources. Implementation of Mitigation Measures 5.5-2 and 5.5-3 would ensure that the proposed project would not contribute to a cumulative effect on cultural resources. Therefore, the proposed project would not contribute to a cumulative impact related to cultural resources, and this is considered a **less-than-significant cumulative impact**.

Because the proposed project would result in no impacts on historically significant buildings or structures, the cumulative analysis focuses on potential cumulative impacts on archaeological and paleontological resources.

The 2030 General Plan Master EIR identifies the cumulative context for archaeological resources as the known territory of the local Native American population, which includes portions of seven counties. The Master EIR states that future development in the General Plan Policy Area as well as within the larger region could include excavation and grading that could potentially impact archaeological resources and human remains that may be present. The cumulative effect of this future development is the continued loss of prehistoric cultural remains. Excavations in the City have uncovered evidence of Native American culture dating back to 3000 B.C. The data derived from these studies have provided archaeologists the opportunity to reconstruct a framework of indigenous subsistence and settlement patterns from 6000 B.C. to the time of contact with Euro-American settlers. Although other parts of California have yielded evidence of earlier occupations, the current regional archaeological records lack sites that can be attributed to the region's earliest inhabitants. Potential future development increases the likelihood that archaeological sites that date prior to 6000 B.C. could be uncovered.

The Master EIR states that it is therefore possible that cumulative development could result in the destruction of unique archaeological resources or human remains, which could contribute to the erosion of the prehistoric record of the City. The Master EIR concluded that the cumulative impact of development under the proposed 2030 General Plan would, therefore, be considerable and would result in a significant cumulative impact. However, the Sutter Memorial Hospital site is not identified as an area of high sensitivity in the Master EIR and the project site is located in an area in which ground disturbance has occurred for the construction of existing hospital uses. Further, because the proposed project's impacts would be reduced to less-than-significant levels through implementation of Mitigation Measures 5.5-2 and 5.5-3, the proposed project would not contribute to a cumulative loss of cultural resources; therefore, this is considered a **less-than-significant cumulative impact**.

Mitigation Measure

No mitigation is required.

5.6 HAZARDS AND HAZARDOUS MATERIALS

This section describes the types of environmental hazards that would be associated with demolition of Sutter Memorial Hospital and construction and operation of the Sutter Park Neighborhood Project residential development. Hazards evaluated include those associated with identified existing or suspected sites of contamination and potential exposure to hazardous materials used, stored, or transported during demolition and construction. This section includes a brief discussion of geology and hydrology, as necessary to frame the discussion of contaminants and potential exposure pathways. Potential hazards associated with toxic air contaminant emissions are discussed in Section 5.2, “Air Quality.” The information included in this section is based largely on the Phase I Environmental Site Assessment prepared for the Sutter Memorial Hospital property in November of 2011 (Nichols Consulting Engineers [NCE] 2011).

For the purpose of this document, the term “hazardous material” is used in reference to any material or waste with physical, chemical, or other characteristics that could pose a risk to human health or safety, or could result in degradation of the environment if released. Although chemicals are the most recognized type of hazardous materials, radioactive and biohazardous materials are included in the following discussion. Radioactive materials contain atoms with unstable nuclei that spontaneously emit ionizing radiation to increase their stability. Biohazardous materials contain infectious agents (i.e., microorganisms, bacteria, molds, parasites, viruses) that normally cause, or significantly contribute to, increased human mortality.

Comments received in response to the Notice of Preparation expressed concern over potential soil contamination, airborne dust particles, and runoff from disturbed soils that could be routes of exposure. In particular, concern was expressed regarding the release of lead-based paint and asbestos-containing materials during demolition of the hospital buildings. These issues are discussed in this section.

5.6.1 ENVIRONMENTAL SETTING

GEOLOGY AND TOPOGRAPHY

The Sutter Park Neighborhood Project site lies within the Sacramento Valley, which is a large, relatively flat, asymmetrical trough bound to the east by the Sierra Nevada Mountains and the west by the northern Coast Range. Local topography slopes slightly, from east to west. The proposed project site is located approximately 32-feet above mean sea level and is relatively flat.

The site is underlain by Pleistocene-age unconsolidated alluvial deposits of the Riverbank Formation. In the Sacramento area, the Riverbank Formation is a heterogeneous assemblage of buried stream channel and flood deposits comprised of interbedded clays, silts, sands, and gravels. Underlying the Riverbank Formation, the Laguna Formation is an older (Pliocene-age) sequence of sediments similar to the Riverbank Formation. In the immediate vicinity of the site, subsurface geology to a depth of 70

feet below the ground surface is characterized by interbedded lithogic units comprised of sand, silty-sand, silt, and clay (CH2M Hill 2009).

SURFACE AND GROUNDWATER WATER

The most prominent surface water feature in the vicinity of the proposed project site is the American River. The American River flows east to west, from the Sierra Nevada mountains to the Sacramento River. The Sutter Park Neighborhood Project is located in a river meander, approximately 0.7 miles west and 0.6 miles south of the river.

The site is located within the Sacramento Valley Groundwater Basin in the Sacramento River Hydrologic Region. Groundwater occurs in the unconsolidated sediments of the Riverbank Formation and coarse-grained sections of the Laguna and older Mehrten formations. Regional estimations of groundwater elevations provided in the *Sacramento Central Groundwater Authority's Basin Management Report for 2009-2010* indicate that groundwater is between 10 and 30 feet below mean sea level, depending on season and water year. Water monitoring conducted at a nearby property (the former Suburban Roofing Facility, located approximately 0.25 southeast of the proposed project site) over a 12 year period between 1997 and 2009 recorded water depths between 22 and 34 feet below the ground surface and groundwater flow to the west, generally at a relatively flat gradient of 0.001 feet per foot (although variable flow was recorded, between 0.0002 and 0.006 feet per foot) (CH2M Hill 2009).

EXISTING BUILDINGS AND SITE CONDITIONS

The proposed project site includes 12 buildings located primarily in the northwestern and southern portions of the site and parking lots located mostly in the north. As discussed in Chapter 3, "Project Description," the Old Maternity Hospital was originally constructed in 1937. Subsequent expansions of the Maternity Hospital occurred between 1955 and 2005 (Table 5.6-1).

The Phase I Environmental Site Assessment of the Sutter Memorial Hospital site identified three 12,000 gallon underground storage tanks (USTs) used to store diesel, an above ground storage tank for liquid oxygen, an inactive brine UST, an industrial well, the remnants of an incinerator, trash dumpsters, and structures containing asbestos and lead-based paint. The site also includes a maintenance building containing the paint shop and storage, carpenter and machine shop, and flammable liquid storage. Former site features that were identified in the environmental site assessment include two locations where USTs were previously located, two former incinerators, a former water supply well, a former aboveground brine tank, and a former water cooling tower. Review of historical site plans indicated that excess materials generated during construction of the hospital additions were placed in the northeast portion of the site prior to the construction of the paved parking lot in the early 1980s. Further detail on these site features is provided below.

Table 5.6-1 Existing Buildings and Year of Construction	
Building	Year Constructed
Building A (Main Hospital)	1955-1985
Building B (Clinical Equipment Management Program)	1967
Building C (Children's Outpatient/Childbirth Education/Cystic Fibrosis Center/Diabetes Care)	1974
Building D (Children's Specialist Surgery)	1964
Building E (Adult Diabetes/Rehab Services Center)	2005
5105 (The Sharing Place)	1984
Old Maternity Ward	1937
5277 (MRI Center)	1990
Specialty Services Trailer	Unknown
Conference Room Trailer	Unknown
Generator Building	1984
Plant Operations and Maintenance	1965

Plant Operation and Maintenance Building

The maintenance building, located in the western portion of the site, is used to store chemicals in 55-gallon drums and smaller containers. The carpenter and machine shop, the paint shop and storage, and the flammable liquid storage are also found in this building. Based on this information, there is a potential for inadvertent leaks and spills associated with the drums and small containers and activities of the maintenance building to have impacted the soil in this area (NCE 2011).

Boiler and Back-up Generator Buildings

Sutter Memorial Hospital is permitted to operate four diesel standby generators and three boilers. The three boilers are located in a boiler room that was constructed in the northwest corner of the main hospital building (Exhibit 3-3, Sutter Memorial Hospital Site). Two of the generators are located in the western portion of the site, and the other two are located in a generator building near the center of the site. It is possible that leaks of chemicals (primarily petroleum hydrocarbons) could have contaminated the floors of buildings housing the boiler and back-up generators, and potentially the soils beneath them. The Phase I Environmental Site Assessment noted hydrocarbon stains on the floor beneath all four generators. No violations have been reported (NCE 2011).

Storage Tanks

There are three 12,000-gallon diesel USTs located in the northwest portion of the site that were installed in 1998. These USTs replaced three single-walled tanks that were installed in the same location in 1985. The tanks are used to heat the boiler and power the generators during an emergency. The environmental conditions following the removal of the first generation of USTs is not known. Currently, an alarm system is used to detect leaks. Inspections are conducted monthly to measure

diesel levels within the USTs, and tightness tests are conducted annually to verify that no unauthorized releases have occurred.

Three additional USTs have been documented in two places on the western side of the site. A small UST has been identified adjacent to, and east of, the generators located in the southwest portion of the site. Two other USTs were formerly located in the current location of the boiler room. There is no documentation associated with the closure activities of any of the former USTs. It is not known if the USTs were removed or decommissioned, or whether there were fuel-related impacts to soil or groundwater. There is a potential that soils around current and former USTs and their associated piping are contaminated with petroleum.

Incinerator Sites

Incinerators were formerly located near the west side of the boiler room in the eastern portion of the site. Ash from incinerators can contain heavy metals; and incomplete combustion can also result in polynuclear aromatic hydrocarbons and dioxins in the vicinity of the incinerator. The fuel source for the incinerators and the historical waste disposal practices for the incinerator fly ash and bottom ash are not known. There is potential for the presence of petroleum hydrocarbons, heavy metals, polynuclear aromatic hydrocarbons, and dioxins in the soil around the former incinerator sites.

Brine Tanks

An existing (but no longer in use), empty brine UST is located in the western portion of the site adjacent to the boiler room. A second above-ground brine tank was located in the central portion of the site. The tanks were used to hold salts and brines for the broiler's water softeners. Impacts to soil or groundwater from use of the brine tanks are not known.

Cooling Tower

Antibacterial and antifungal additives commonly containing high copper contents were used in the former wooden cooling tower located in the western parking lot. There is a potential that surrounding soils have been impacted by inadvertent release of additives.

Potential Landfilling Areas

According to the 1964 Basement Plan reviewed as part of the Phase I Environmental Site Assessment, excess excavated materials generated during construction of hospital additions (including the basement of Building A) were placed in the northeast portion of the site (under the main paved parking lot). It is not known if these areas were landfilled with ash from the incinerators or with other wastes, or whether there could be related impacts to soil and groundwater.

Drain Well and Other Utilities

There is a potential that hazardous materials were disposed of, intentionally and/or inadvertently, through the sanitary sewer system during historical site operations. The hospital historically included several dark rooms. Photographic chemicals were stored in 30 or 55 gallon drums in these dark rooms. After use, the chemicals were discharged into the sanitary sewer (NCE 2011). Additionally, historical site plans identified a basement sump. There is a potential that hazardous materials and wastes were released to the sump (NCE 2011).

The site may have also contained a drain well. Drain wells can be used to dispose of rainwater, wastewater, and other constituents (including chemicals). The well was identified by CH2M Hill during review of DWR well logs conducted as part of an evaluation of a nearby property. The Phase I Environmental Site Assessment could not confirm the presence of a drain well on the site; however, based on the date of construction (1956) and location, there is potential that the well was constructed as part of a parking area or loading dock associated with Building A (the Main Hospital). Disposal of chemicals to on-site utilities could have contaminated the infrastructure, as well as adjacent soil and groundwater.

Water Supply Wells

The property includes two wells; an industrial well and a municipal well. An industrial well and associated aboveground storage tank for water is located adjacent to, and west of, the former brine tank. This well was installed in 1950. Several transformers are located in the vicinity of the industrial well. A municipal well was installed at the site in 1956. The exact location of this well is not known, but historical maps indicate that it could have been located near the southwest corner of the old maternity ward.

Asbestos

Asbestos, a naturally-occurring fibrous material, was used as a fireproofing and insulating agent in building construction before such uses were largely banned by the US Environmental Protection Agency (EPA) in the 1970s. Because it was widely used prior to the discovery of its health effects, asbestos is found in a variety of building materials, including sprayed-on acoustic ceiling texture, floor tiles, and pipe insulation.

Asbestos exposure is a human respiratory hazard when it becomes friable (easily crumbled) because inhalation of airborne fibers is the primary mode of asbestos entry into the body. Asbestos-related health problems include lung cancer and asbestosis. Asbestos-containing building materials are considered hazardous by the California Department of Occupational Safety (Cal-OSHA) when bulk samples contain more than 0.1 percent asbestos by weight. These materials must be handled by a qualified contractor.

Although asbestos abatement activities have been conducted at the hospital, asbestos-containing materials are believed to remain on the walls and floors of most buildings on the site (NCE 2011).

LEAD

Lead can be found in old water pipes, solder, paint, and in soils around structures painted with lead-based paints. Lead accumulates in blood, soft tissues, and bones. Lead-based paints are likely present on the buildings constructed prior to the late 1970s, when the quantity of lead in paints became regulated. Potentially hazardous exposures to lead can occur when lead-based paint is improperly removed from surfaces by dry scraping, sanding, or open-flame burning. Lead-based paints and coatings used on the exterior of buildings may have also flaked or oxidized and deposited into the surrounding soils. In addition, because the site was constructed before the 1986 ban on the use of solder containing lead to connect copper drinking water pipes, the site's plumbing system may contain lead solder.

MERCURY AND POLYCHLORINATED BIPHENYLS

Mercury and polychlorinated biphenyls were historically used in electrical equipment. Spent florescent light tubes, thermostats, and other electrical equipment may contain heavy metals, including mercury. Mercury evaporates slowly when exposed to air, and vapors can cause kidney and liver damage. Polychlorinated biphenyl was historically used in insulators, capacitors, and transformers. Florescent light ballasts manufactured before 1978 may contain polychlorinated biphenyls. Polychorinated biphenyls are highly persistent in the environment, and exposure can cause serious liver, dermal, and reproductive system damage. Disposal of materials containing these contaminants is now heavily regulated, but there is potential that contamination of the hospital site occurred as a result of accidental spills and historical practices before more stringent regulations were adopted.

TRANSFORMERS

Pole-mounted electrical transformers are located on the site. These transformers are unlikely to contain polychlorinated biphenyls, and therefore are unlikely to pose a potential hazard. According to Sacramento Municipal Utility District, which provides electricity to the site, all transformers that previously contained polychlorinated biphenyls have been replaced (NCE 2011).

USE OF HAZARDOUS MATERIALS AT THE EXISTING HOSPITAL

The following information characterizes the existing use of hazardous materials at Sutter Memorial Hospital. These uses will end following the closure of Sutter Memorial Hospital and will be transferred to the new Women's and Children's Center, as explained in the Project Description (see Chapter 3).

Existing operations of Sutter Memorial Hospital require the routine use of hazardous materials. These materials generally consist of acids, bases, flammable liquids, organic and inorganic reagents, stains and dyes, compressed gases, pharmaceuticals, and radioactive materials (e.g., x-rays). With few exceptions, most of the bulk hazardous materials are stored and used in small quantities (generally a few gallons or less). Hazardous materials are managed according to the Sutter Memorial Hospital's Hazardous Materials Waste Management Plan, which is contained in the Hospital's Environment of

Care Manual. The management plan contains detailed guidelines for the notification, training, use, transport, and disposal of hazardous materials.

Many of the hospital's diagnostic laboratory procedures involve the use of small quantities of chemicals. The pathology laboratory and morgue use aqueous solutions containing formaldehyde as a preservative. Potential health effects associated with exposure to formaldehyde include skin, eye, and respiratory irritation. Formaldehyde is also regulated as a carcinogen, and its use and disposal is strictly controlled.

Sutter Memorial Hospital is a regulated hazardous waste facility, and as such has been issued a consolidated permit under the State of California Unified Program Agency that covers hazardous waste storage, hazardous waste generation, and underground storage tanks. The site has received a few notices of violation in the last 15 years, but the regulatory agency does not consider these violations as a significant risk to the site. The hospital is also listed in the EPA's database of facilities that generate, store, or transport hazardous waste pursuant to the Resource Conservation Recovery Act. The site is listed as a small quantity generator (generating between 100 and 1,000 kg of hazardous waste in a month). According to these records, wastes that may be present at this site include: ignitable wastes, corrosive wastes, lead, mercury, solvents, benzenebutanoic acid, cyclophosphamide, daunomycin, malphalan, and glucopyranose. No violations have been reported. The facility performs waste determinations using material safety datasheets. Hazardous wastes are collected in designated accumulation areas.

SURROUNDING LAND USES

The Sutter Memorial Hospital site is located in an area dominated by single-family residences. The site is bounded on the south by F Street and residential uses to the south. Residences also border the western, northern, and northeastern perimeter of the project site. The Gorman Building (which houses medical offices) and associated parking lot are located immediately east of the project site. See Chapter 4, "Land Use, Population, and Housing," for more information on current land uses.

FORMER DRY CLEANER SITES

The Phase I Environmental Site Assessment (2011) identified three former dry cleaner sites in the vicinity of Sutter Memorial Hospital. Dry cleaning operations are of concern because solvents released from the sites can contaminate groundwater. The identified dry cleaner sites are all over 0.25 miles from Sutter Memorial Hospital, and all received regulatory case closures in the early 1990s.

NEARBY SCHOOLS

As discussed in Section 5.9, "Public Services and Recreation," Sacramento City Unified School District would provide school services for the project site. The nearest school providing primary or secondary education, Caleb Greenwood Elementary School (5457 Carlson Drive), is located approximately 0.33 mile northeast of the proposed project site. The A. Warren McClaskey Adult Center (5241 J Street) is

located approximately 0.25 mile south of the proposed project site and offers classes for disabled adults. Parent education courses are also offered on the site.

5.6.2 REGULATORY SETTING

FEDERAL

CODE OF FEDERAL REGULATIONS

The EPA laws governing the use, storage, and disposal of hazardous substances at the proposed project site are codified in the Code of Federal Regulations (CFR).The CFR is a compilation of rules published by the executive departments and agencies of the federal government in response to enabling statutes enacted by Congress and published in the United States Code.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) established a framework for national programs to achieve environmentally sound management of both hazardous and non-hazardous wastes. RCRA was designed to protect human health and the environment, reduce or eliminate the generation of hazardous waste, and conserve energy and natural resources. RCRA also promotes resource recovery techniques. The Hazardous and Solid Waste Amendments of 1984 both expanded the scope of RCRA and increased the level of detail in many of its provisions. The Hazardous Waste Management subchapter of the RCRA deals with a variety of issues regarding the management of hazardous materials including the export of hazardous waste, inspections of hazardous waste disposal facilities, and the identification and listing of hazardous waste.

The EPA has authorized the California Department of Toxic Substances Control (DTSC) to enforce hazardous waste laws and regulations in California. Under RCRA, DTSC has the authority to implement permitting, inspection, compliance, and corrective action programs to ensure that people who manage hazardous waste follow state and federal requirements. Requirements place “cradle-to-grave” responsibility for hazardous waste disposal on the shoulders of hazardous waste generators. Generators must ensure that their wastes are disposed of properly, and legal requirements dictate the disposal requirements for many waste streams (e.g., banning many types of hazardous wastes from landfills).

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act (EPCRA) was included under the SARA law and is commonly referred to as SARA Title III. EPCRA was passed in response to concerns regarding the environmental and safety hazards posed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, state and local governments, Indian tribes, and industry regarding emergency planning and "Community Right-to-Know" reporting on hazardous and toxic chemicals.

EPCRA requires states and local emergency planning groups to develop community emergency response plans for protection from a list of extremely hazardous substances (40 CFR 355 Appendix A). The community right-to-know provisions help increase the public's knowledge and access to information on chemicals at individual facilities, their uses, and releases into the environment. In California, EPCRA is implemented through the California Accidental Release Prevention (CalARP) Program.

Chemical Accident Prevention Provisions

The provisions listed under Part 68 of the CFR set forth the list of regulated substances and thresholds, the petition process for adding to, or deleting from, the list of regulated substances, the requirements for owners or operators of stationary sources concerning the prevention of accidental releases, and the state accidental release prevention programs approved under Section 112(r). The CalARP program is the state adaptation of this federal regulation.

Safe Drinking Water Act

This act regulates discharges of pollutants to underground aquifers.

Toxic Substances Control Act

This act regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Pursuant to Title II of the Toxic Substances Control Act, the EPA adopted the Asbestos Model Accreditation Plan in 1994. The Model Accreditation Plan requires that all persons who inspect for asbestos-containing materials or design or conduct response actions with respect to friable asbestos obtain accreditation by completing a prescribed training course and passing an exam. Section 403 of the Toxic Substances Act establishes standards for lead-based paint hazards in paint, dust, and soil.

Environmental Protection Agency Regulations

The CFR includes laws related to the use, removal, and disposal of hazardous materials. The National Emission Standard for Hazardous Air Pollutants for asbestos (40 CFR Part 61), applies to removal of regulated asbestos-containing materials during renovations and demolitions of all structures (excluding residential buildings with fewer than four dwelling units). The standard requires site owners to thoroughly inspect the affected facility for the presence of asbestos prior to commencement of demolition or renovation. In addition, the regulations require to owner of the building and/or the contractor to notify applicable state and local agencies and/or EPA regional offices before any demolition or renovation where a certain threshold amount of asbestos is removed.

Hazardous Materials Transportation Act

The U.S. Department of Transportation (DOT) has developed regulations in Titles 10 and 49 of the CFR pertaining to the transport of hazardous substances and hazardous wastes by all modes of transportation. The transportation of hazardous materials is regulated by the Hazardous Materials Transportation Act, which is administered by the Research and Special Programs Administration of the DOT. The Hazardous Materials Transportation Act provides DOT with a broad mandate to regulate the transport of hazardous materials, with the purpose of adequately protecting the nation against risk to life and property that is inherent in the commercial transportation of hazardous materials. DOT regulations that govern the transportation of hazardous materials are applicable to any person who transports, ships, causes to be transported or shipped, or who is involved in any way with the manufacture or testing of hazardous materials packaging or containers.

The United States Postal Service has developed additional regulations for the transport of hazardous substances by mail. The DOT regulations specify packaging requirements for different types of materials. The EPA has also promulgated regulations for the transport of hazardous wastes. These more stringent requirements include tracking shipments with manifests to ensure that wastes are delivered to their intended destinations.

Nuclear Waste Policy

The Nuclear Regulatory Commission (NRC) implements regulations specific to nuclear materials and nuclear waste. These include the Atomic Energy Act of 1954, the Nuclear Waste Policy Act of 1982, and the Low-level Radioactive Waste Policy Amendments Act of 1985. These acts regulate the development and uses of nuclear materials. The NRC may enter into an agreement with a state for discontinuance of the NRC's regulatory authority over some materials licensees within the state under section 274 of the Atomic Energy Act and pursuant to the Low-level Radioactive Waste Policy Amendments Act. In California, this authority has been delegated to the Department of Health Services.

STATE

The primary state agencies with jurisdiction over hazardous materials management are the DTSC and the Regional Water Quality Control Board (RWQCB). Other state agencies involved in hazardous materials management are the Department of Industrial Relations (Cal-OSHA implementation), the Office of Emergency Services (California Accidental Release Prevention implementation), Department of Fish and Wildlife (formerly Department of Fish and Game), Air Resources Board, California Department of Transportation, State Office of Environmental Health Hazard Assessment (Proposition 65 implementation), and California Integrated Waste Management Board. The enforcement agencies for hazardous materials transportation regulations are the California Highway Patrol and the California Department of Transportation. Hazardous materials and waste transporters are responsible for complying with all applicable packaging, labeling, and shipping regulations.

Within the California Environmental Protection Agency (Cal EPA), DTSC has primary regulatory responsibility for hazardous waste management and cleanup. DTSC also regulates hazardous waste

under the authority of the RCRA and the California Health and Safety Code, and implements the Hazardous Waste Control Law of 1972. Cal EPA is also responsible for implementing the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program.

California Code of Regulations

Title 8 of the California Code of Regulations (CCR) contains the Cal-OSHA health and safety regulations. Hazardous substance information and training is detailed in Article 5 of Division 3.5. This section includes special procedures for supplementary enforcement of state plan requirements concerning Proposition 65 and the hazardous substances list. Title 17 of the CCR provides information on the appropriate accreditation, certification, and work practices for lead-based paint and lead hazards.

The CalARP (CCR Title 19, Division 2, Chapter 4.5) covers certain businesses that store or handle more than a specified volume of regulated substances at their facilities. The CalARP program regulations became effective on January 1, 1997, and include the provisions of the federal Accidental Release Prevention program (Title 40, CFR Part 68), with certain additions specific to the state pursuant to Article 2, Chapter 6.95, of the Health and Safety Code. The list of regulated substances is found in Article 8, Section 2770.5 of the CalARP program regulations. Businesses that use a regulated substance above the noted threshold quantity must implement an accidental release prevention program, and some may be required to complete a Risk Management Program (RMP).

A RMP is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The purpose of a RMP is to decrease the risk of an off-site release of a regulated substance that might harm the surrounding environment and community. A RMP includes the following components: safety information, hazard review, operating procedures, training, maintenance, compliance audits, and incident investigation. The RMP must consider the proximity to sensitive populations located in schools, residential areas, general acute care hospitals, long-term health care facilities, and child day-care facilities, as well as external events such as seismic activity.

Division 4.5, Environmental Health Standards for the Management of Hazardous Waste, of Title 22 Social Security contains the DTSC’s hazardous waste regulations. RWQCB regulations are contained in Title 27 of the CCR.

The California Health and Safety Code, Underground Storage Tank Regulations

Chapter 6.7 of the Health and Safety Code outlines the requirements for USTs. The code identifies requirements for corrective actions, cleanup funds, liability, and the responsibilities of owners and operators of USTs.

California Public Resources Code Section 21151.4

The Public Resources Code requires the lead agency to consult with any school district with jurisdiction over a school within 0.25 mile of a proposed project about potential impacts on the school if the project

might reasonably be anticipated to emit hazardous air emissions, or handle an extremely hazardous substance or a mixture containing an extremely hazardous substance.

Although there are no primary or secondary schools within 0.25 mile of the proposed project site or conceptual haul routes proposed in the demolition plan (Cleveland 2013), the City has notified the Sacramento City Unified School District of the project.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act regulates the oversight of water monitoring, and contamination cleanup and abatement, through the State Water Resources Control Board and the RWQCBs.

Safe Drinking Water and Toxic Enforcement Act

The Safe Drinking Water and Toxic Enforcement Act regulates the discharge of contaminants to groundwater.

California Government Code Section 65962.5

California Government Code Section 65962.5 requires the DTSC to compile and maintain lists of potentially contaminated sites located throughout the State of California. This “Cortese List” includes hazardous waste and substance sites from DTSC’s database, leaking underground storage tank sites from the State Water Resources Control Board’s database, solid waste disposal sites with waste constituents above hazardous waste levels outside of the waste management unit, Cease and Desist Orders and Cleanup and Abatement Orders concerning hazardous wastes, and hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code.

Air Toxic Control Measure

The California Air Resources Board adopted an Air Toxic Control Measure for asbestos on July 29, 2002. The Air Toxic Control Measure governs the construction of projects in areas that contain asbestos. (See Section 5.2, “Air Quality.”)

Hazardous Waste Control Law

California law provides the general framework for regulation of hazardous wastes through the Hazardous Waste Control Law (HWCL) passed in 1972. Similar to RCRA, this act regulates the identification, generation, transportation, storage, and disposal of materials the State of California has deemed hazardous. The HWCL provides for state regulation of existing hazardous waste facilities, which include “any structure, other appurtenances, and improvements on the land, used for treatment, transfer, storage, resource recovery, disposal, or recycling of hazardous wastes,” and requires permits for, and inspections of, facilities involved in generation and/or treatment, storage, and disposal of hazardous wastes. DTSC is the state’s lead agency in implementing the HWCL.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

In January 1996, Cal EPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are: hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency – the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction. Sacramento County Environmental Management Department (SCEMD) is the CUPA for Sacramento County.

Worker and Workplace Hazardous Materials Safety

Cal-OSHA is responsible for developing and enforcing workplace safety standards and assuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal-OSHA obligates many businesses to prepare Injury and Illness Prevention Plans and Chemical Hygiene Plans. The Hazard Communication Standard requires that workers be informed of the hazards associated with the materials they handle. For example, manufacturers are to appropriately label containers, material safety data sheets are to be available in the workplace, and employers are to properly train workers.

California Medical Waste Management Act

The California Department of Health Services Medical Waste Management Program enforces the California Medical Waste Management Act and related regulations. The Medical Waste Management Act requires that all hospitals develop and implement a Medical Waste Management Plan. The purpose of the plan is to successfully guide the proper handling of medical waste throughout the facility, including the storage, transport, and disposal. The law imposes cradle to grave tracking and a calibration and monitoring system for onsite treatment. Facilities that treat medical waste must obtain permits to do so and are subject to annual audits.

California Department of Health Services Licensing

The Radiological Health Branch of the California Department of Health Services administers federal and state radiation safety laws that govern the storage, use, and transportation of radioactive materials and the disposal of radioactive waste, including the Radiation Control Law, Radiologic Technology Act, and Nuclear Medicine Technology Certification, through the implementing regulations contained in Title 17 of the California Code of Regulations. To obtain a California radioactive material license, an applicant must complete a detailed application that requires a description of plans for decontamination and decommissioning, including identification of transfer or disposal procedures taken before decommissioning and any necessary surveys. To maintain a radioactive materials license, an institution must meet training and radiation safety requirements and be subject to routine inspections.

LOCAL

The SCEMD is responsible for promoting a safe and healthy environment in Sacramento County and enforcing hazardous waste laws and regulations at a local level. As the local CUPA, the SCEMD monitors the proper use, storage and clean-up of hazardous materials, monitoring wells, removal of leaky underground storage tanks, and permits for the collection, transport, use or disposal of refuse. SCEMD's Hazardous Materials Business Plan, which is administered throughout Sacramento County and its incorporated cities, is an element of the County's CUPA program. Businesses are required to complete a Hazardous Materials Business Plan for safe storage and use of chemicals above reportable quantities (55 gallons for liquids, 500 pounds for solids and 200 cubic feet for compressed gases).

WELL DESTRUCTION

Inactive wells can become an environmental concern if they allow runoff water carrying bacteria, sediment, fertilizer, pesticides, and other surface pollutants to flow directly into the groundwater. The SCEMD issues well destruction permits, which establish the procedures that must be followed for proper destruction of the wells once they are no longer in active use. The SCEMD regulations incorporate the California Well Standards and Title 6, Chapter 6.28 (Wells and Pumps) of the Sacramento County Code, which prohibit removing surface features of wells during grading, burying or paving over wells, and constructing structures over wells. The applicant would obtain well destruction permits for all wells currently located on the proposed project site.

UNDERGROUND STORAGE TANK REMOVAL REQUIREMENTS

Permits to remove USTs must be obtained from SCEMD. The requirements of the permit include: removal and proper disposal of any residual liquid, solids, or sludge within the UST system; soil and water sampling in accordance with SCEMD standards, including quality control, sampling plot map, chain of custody, and third party sampling analysis by a state certified lab; SCEMD observation and inspection of the UST removal and soil sampling; and submittal of rinsate manifest, tank disposal documentation, soil and water sampling lab analysis, and soil stockpile disposal documentation.

AREA PLAN FOR EMERGENCY RESPONSE TO HAZARDOUS MATERIALS INCIDENTS IN SACRAMENTO COUNTY

The SCEMD has developed the Area Plan for Emergency Response to Hazardous Materials Incidents in Sacramento County (SCEMD 2012). The area plan provides information for agencies involved in hazardous materials response within Sacramento County, including, but not limited to, the Sacramento County Sheriff's Department, Sacramento City Fire Department, the California Office of Emergency Services, Sacramento County Health Department, Public Works, and the California Highway Patrol, if needed to respond to a hazardous materials incident.

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT RULES

The Sacramento Metropolitan Air Quality Management District (SMAQMD) implements the EPA's National Emission Standard for Hazardous Air Pollutants for Asbestos, which is contained in Part 40 of

the CFR. The district's Rule 304 charges a fee to emission sources, including renovation and demolition projects that involve asbestos. Sacramento Metropolitan Air Quality Management District Rule 902 protects the public from exposure to asbestos in the event of a release. Rule 902 parallels much of the federal regulation, but is more stringent and includes some clarifications. Please see Section 5.2, "Air Quality," for a discussion of the project's compliance with SMAQMD's rules.

Sacramento City Code

The City of Sacramento Code defines hazardous materials consistent with state laws.

City of Sacramento 2030 General Plan

The City of Sacramento encourages the documentation, monitoring, clean up, and re-use of hazardous materials and sites. To meet Goal PHS 3.1: Reduce Exposure to Hazardous Wastes, the city has developed the following policies:

- **Policy PHS 3.1.1 Investigate Sites for Contamination.** The City shall ensure buildings and sites are investigated for the presence of hazardous materials and/or waste contamination before development for which City discretionary approval is required. The City shall ensure appropriate measures are taken to protect the health and safety of all possible users and adjacent properties.
- **Policy PHS 3.1.2 Hazardous Material Contamination Management Plan.** The City shall require that property owners of known contaminated sites work with Sacramento County, the State, and/or Federal agencies to develop and implement a plan to investigate and manage sites that contain or have the potential to contain hazardous materials contamination that may present an adverse human health or environmental risk.
- **Policy PHS 3.1.3 Household Hazardous Waste Collection Programs.** The City shall continue to provide household hazardous waste collection programs to encourage proper disposal of products containing hazardous materials or hazardous wastes.
- **Policy PHS 3.1.4 Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to designated routes.
- **Policy PHS 3.1.5 Clean Industries.** The City shall strive to maintain existing clean industries in the city and discourage the expansion of businesses, with the exception of health care and related medical facilities that require on-site treatment of hazardous industrial waste.
- **Policy PHS 3.1.6 Compatibility with Hazardous Materials Facilities.** The City shall ensure that future development of treatment, storage, or disposal facilities is consistent with the County's Hazardous Waste Management Plan, and that land uses near these facilities, or proposed sites for the storage or use of hazardous materials, are compatible with their operation.
- **Policy PHS 3.1.7 Education.** The City shall continue to educate residents and businesses on how to reduce or eliminate the use of hazardous materials and products, and shall encourage the use of safer, nontoxic, environmentally friendly equivalents.

EAST SACRAMENTO COMMUNITY PLAN

There are no applicable hazards or hazardous materials policies in the East Sacramento Community Plan.

5.6.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

The analysis of potential hazards and hazardous materials impacts that could result from implementation of the Sutter Park Neighborhood Project is focused on the potential for the demolition of existing buildings and other elements on the site (i.e., past and current use of hazardous materials in routine hospital operations and the presence of building materials now understood to pose potential harm if released into the environment) to affect people living and working in the vicinity of the project, including future residents of the project site. It is assumed that the hospital stores radioactive and medical wastes related to nuclear medicine laboratories in compliance with current regulations, and that such contemporary uses of the site do not pose a substantial risk to people or the environment. Hazardous materials stored and used at the Sutter Memorial Hospital (e.g., drums of flammable liquid, biohazardous wastes) would be removed by Sutter Hospital prior to initiation of pre-demolition activities associated with the Sutter Park Neighborhood Project following the regulations that currently regulate their disposal, including RCRA, the California Medical Waste Management Act, and Sutter Memorial Hospital's Hazardous Materials Waste Management Plan.

Following construction of the Sutter Park Neighborhood Project, operational use of hazardous materials for residential and commercial uses is anticipated to be congruent with surrounding residential and commercial uses. Use of small quantities of household chemicals does not present a potential environmental impact.

STANDARDS OF SIGNIFICANCE

For the purpose of this EIR, impacts related to hazardous materials would be considered significant if the project would expose people (e.g., residents, pedestrians, construction workers) to:

- asbestos-containing materials, or other hazardous materials or situations;
- existing contaminated soil during construction activities; or
- existing contaminated groundwater during construction or dewatering activities.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.6-1	**Expose people to asbestos-containing materials, or other hazardous materials or situations.** Existing hospital buildings may contain asbestos, lead, or other hazardous substances that could be released into the environment if not properly removed, contained, transported, and disposed of. This is a **potentially significant** impact.

Existing site features are believed to contain hazardous materials, including asbestos, lead, and heavy metals – primarily because many of the existing structures date to before the use of these materials was heavily restricted. Demolition of structures could result in inadvertent release or improper disposal of debris containing potentially hazardous materials; however, federal, state, and local regulations have been developed to address potential impacts related to the handling and disposal of hazardous materials during demolition. Potential impacts can be minimized through adherence to regulatory standards that prescribe specific methods of material characterization and handling. Specific actions incorporated into the project include the following.

- **Asbestos.** Prior to demolition, all structures would be tested for the presence of asbestos-containing materials. Any asbestos would be removed and disposed of by an accredited contractor in compliance with federal, state, and local regulations (including the Toxic Substances Control Act, the National Emission Standard for Hazardous Air Pollutants, and Sacramento Metropolitan Air District Rules). Compliance with these regulations would result in the safe disposal of asbestos-containing materials.
- **Lead-based paint or other coatings.** A survey for indicators of lead-based coatings would be conducted prior to demolition to further characterize the presence of lead on the project site. For the purposes of compliance with Cal-OSHA regulations, all coated surfaces would be assumed to potentially contain lead. There is also a potential for soil contamination due to deposition of deteriorated (i.e., flaked, peeled, chipped) lead-based paint adjacent to structures where lead-based exterior paints were used. Loose or peeling paint may be classified as a hazardous waste if concentrations exceed total threshold limits. Cal-OSHA regulations require air monitoring, special work practices, and respiratory protection during demolition where even small amounts of lead have been detected.
- **Heavy metals and polychlorinated biphenyls.** Spent florescent light bulbs and ballasts, thermostats, and other electrical equipment may contain heavy metals, such as mercury, or polychlorinated biphenyls. Hazardous materials, including mercury, may have also been disposed of in sinks and other onsite pluming during historical operations. Testing for the presence of residual materials in pipes and careful removal techniques, including dismantling of plumbing fixtures, is the only way to ensure that contractors are not inadvertently exposed to hazardous substances and that hazardous substances are not improperly disposed of, exposing more people to the contamination. If concentrations of these metals exceed regulatory standards, they must be handled as hazardous waste in accordance with hazardous waste regulations.
- **Radioactive medical waste.** Storage of radioactive medical wastes (i.e., radionuclides generated in nuclear medicine and clinical testing laboratory departments) is regulated by the NRC. The NRC

and/or the California Department of Health Services will complete an evaluation related to the storage, handling, and use of radioactive medical waste on the site. The Radiological Health Branch of the California Department of Health Services administers federal and state radiation safety laws that govern the storage and disposal of radioactive waste through the implementing regulations contained in Title 17 of the California Code of Regulations. To obtain a radioactive material license, Sutter Health completed a detailed application that contains a description of plans for decontamination and decommissioning, including identification of transfer or disposal procedures taken before decommissioning and any necessary surveys. These procedures would be implemented prior to demolition under the oversight of the California Department of Health Services.

Hazardous waste would be transported and disposed of in compliance with applicable federal, state, and local regulations. The primary haul route depicted in the conceptual demolition plan would follow F Street east to Elvas Avenue. This route would divert trucks to commercial areas and away from sensitive receptors. The actual haul route would be included in the final demolition plan, which is subject to review and approval by the City of Sacramento Department of Public Works. All hazardous materials would be transported by a licensed hauler in accordance with applicable regulations, including the federal Hazardous Materials Transportation Act.

Impacts related to hazardous materials are considered **potentially significant** because the presence of hazardous materials on the site has not been fully characterized. Therefore, an environmental or public hazard is reasonably foreseeable due to upset or accidental release.

Mitigation Measure 5.6-1: Minimize potential for accidental release of hazardous materials.

(a) Prior to demolition, the project applicant shall submit a written plan to the SCEMD describing the methods to be used to (1) identify locations that could contain hazardous residues; (2) remove plumbing fixtures known to contain, or potentially containing, hazardous materials; (3) determine the waste classification of the debris; (4) package contaminated items and wastes; and (5) identify disposal site(s) permitted to accept such wastes. Demolition shall not occur until the plan has been accepted by the SCEMD and all potentially hazardous components have been removed to the satisfaction of SCEMD staff.

(b) Prior to demolition of existing structures, the project applicant shall provide written documentation to the City that asbestos testing and abatement, as appropriate, has occurred in compliance with applicable federal, state, and local laws.

(c) Prior to demolition of existing structures, the project applicant shall provide written documentation to the City that lead-based paint testing and abatement, as appropriate, has been completed in accordance with applicable state and local laws and regulations. Abatement will include the removal of lead contaminated soil (considered soil with lead concentrations greater than 400 parts per million in areas where children are likely to be present).Implementation of this mitigation measure would require that asbestos-containing building materials, lead-based paint, and other hazardous

substances in building components are identified, removed, packaged, and disposed of in accordance with applicable state laws and regulations.

This would minimize the risk of an accidental release of hazardous substances that could adversely affect human health or the environment, reducing this impact to a **less-than-significant** level.

IMPACT 5.6-2	**Expose people to existing contaminated soil during construction.** Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated soil or buried debris that may contain hazardous substances. This is a **potentially significant** impact.

Although the results of the Phase 1 Environmental Site Assessment indicate that there are no known soil contamination issues at the site, the potential exists for undocumented releases of hazardous substances to soil from historical uses on the site. Items such as old heating fuel USTs, for example, predate current permitting and regulatory requirements and there may not be records associated with their location or operation. Moreover, leaking tanks could have resulted in a release of petroleum products beyond what was previously identified and remediated. Specific sites of concern include:

- **Plant Operations and Maintenance Building.** There is a potential for inadvertent leaks and spills associated with the activities of the maintenance building, including storage of materials in drums and other small containers, to have impacted the soil in this area.
- **Boiler and backup generator buildings/rooms.** Evidence of potential petroleum hydrocarbon releases were observed on the concrete floors of the boiler and backup generator buildings/rooms during the Phase 1 Environmental Site Assessment. There is potential that leaks of chemicals to the floors of these structures have impacted the soils beneath them.
- **The main parking lot.** Based on historical plans, excess excavated materials generated during the new hospital additions (including the basement of Building A) were placed in the northeastern portion of the site. The area could be landfilled with ash from incinerators or other waste that could become a health concern once the asphalt cap is removed.
- **Former incinerator sites.** The fuel source for the incinerators and the historical waste disposal practices are not known. Therefore, there is a potential that the soils around the incinerator sites have been contaminated with fuel, or fly or bottom ash.
- **UST sites.** The existing USTs would be removed in coordination with the SCEMD. The California Health and Safety Code, the California Code of Regulations, and the Sacramento County Code require that UST owners obtain a permit for removal from SCEMD. The modern, double-walled tanks are not expected to pose an environmental threat. Historical USTs, for which closure data has not been obtained, could have leaked - resulting in soil and groundwater contamination.
- **Cooling tower.** There is a potential that soils surrounding the cooling tower have been impacted by inadvertent release of antibacterial and antifungal additives, which commonly contain high copper contents.

Contaminated soil, groundwater, or buried wastes may have contaminated soil gas below the project site, which can move from the subsurface into the indoor air of an overlying building. The accidental discovery of unknown hazards during excavation and inadvertent release of hazardous materials could create a **potentially significant** hazard to the public or the environment if measures are not in place to safely manage such occurrences.

Mitigation Measure 5.6-2: Phase II environmental site assessment and remediation.

(a) The applicant shall prepare a Phase II Environmental Site Assessment consistent with ASTM standards. The Phase II assessment will utilize the evaluation conducted in the Phase I Environmental Site Assessment to identify areas with an elevated potential for hazardous material contamination. At a minimum, the Phase II investigation shall include further investigation and/or sampling of:

- *the soils around the maintenance building;*
- *the soils beneath the generator building and broiler room in the maintenance building;*
- *the northeastern portion of the project (under the parking area) for heavy metals, PAHs, and dioxins;*
- *the former incinerator sites for heavy metals, polynuclear aromatic hydrocarbons, and dioxins;*
- *soil and water sampling around the former and current UST locations for contamination with petroleum hydrocarbons;*
- *the soils under the former cooling tower for copper;*
- *the soil at the bottom of identified wells and sumps for waste oils and petroleum hydrocarbons; and*
- *soil vapor, as appropriate.*

(b) In the event that site investigations find evidence of contamination, waste discharges, underground storage tanks, abandoned drums, or other environmental impairment within the project site, the SCEMD shall be notified and a site remediation plan shall be prepared that: (1) specifies measures to be taken to protect workers and the public from exposure to potential hazards; and (2) certifies that the proposed remediation measures would clean up the contaminants, dispose of the wastes, and protect public health in accordance with federal, state, and local requirements. All remediation would be consistent with DTSC's residential standards and may include soil removal or in situ treatment options. Commencement of work in areas of potential hazards shall not proceed until the site remediation plan has been executed to the satisfaction of the SCEMD.

(c) A site health and safety plan that meets the intent of Cal-OSHA requirements shall be prepared and in place prior to commencing work on any contaminated sites. The project applicant shall be responsible for oversight of plan implementation.

(d) *In the event that previously unidentified USTs or other features or materials that could present a threat to human health or the environment are discovered during excavation and grading, construction in the area shall cease immediately. A qualified professional shall evaluate the location and hazards, and make appropriate recommendations. Work shall not proceed in that area until identified hazards are managed to the satisfaction of the SCEMD. If previously unidentified wells are located during demolition, a well destruction permit shall be obtained from SCEMD.*

Implementation of this mitigation measure would reduce impacts associated with exposing people to contaminated soil to a **less-than-significant** level through detailed investigation of site conditions and remediation of identified contamination.

IMPACT 5.6-3	**Expose people to existing contaminated groundwater during construction or dewatering activities.** Site preparation activities associated with the Sutter Park Neighborhood Project, including excavation, grading, and trenching, could encounter contaminated groundwater. This is a **potentially significant** impact.

Local groundwater is between 22 and 34 feet below the ground surface and could be encountered during site excavations (particularly during utility removal and demolition of buildings with basements). While the results of the Phase 1 Environmental Site Assessment indicate that there are no known groundwater contamination issues at the site, the potential exists for historical site uses to have resulted in undocumented releases of hazardous substances that persist in the groundwater under the site. Potential sources of contamination include petroleum hydrocarbons associated with the onsite USTs, brine (saltwater) contamination from the onsite brine tanks, and a drain well that may have been present on the site. In addition, the basement sump was presumably used to dewater the basement and basement foundations and hazardous wastes could have been released to the sump.

There is no indication that migration of offsite contaminants has impacted the groundwater under the proposed project site. The three drycleaners, which are the only identified sources of potential contamination, are all over 0.25 miles from Sutter Memorial Hospital, and received regulatory case closures in the early 1990s. Although much has been learned since the early 1990s about the fate and transport of solvents associated with dry cleaners, based on age, distance, and the direction of groundwater flow, these sites are unlikely to have impacted the proposed project site.

Historical uses of the Sutter Memorial Hospital site could have resulted in localized groundwater contamination. Groundwater contaminated with volatile organic compounds may result in the release of potentially hazardous soil vapors. Because the quality of the groundwater has not been fully characterized, there would be a **potentially significant** impact associated with exposure of people to existing contaminated groundwater during construction and dewatering activities.

Mitigation Measure 5.6-3: Implement Mitigation Measure 5.6-2

Implement Mitigation Measure 5.6-2: Phase II Environmental Site Assessment and Remediation.

Implementation of this mitigation measure would reduce impacts associated with exposing people to contaminated groundwater to a **less-than-significant** level through detailed investigation of site conditions and remediation of identified contamination.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.6-4	**Expose people to hazardous materials or situations, including asbestos-containing materials or existing contaminated soil or groundwater.** The removal, transport, and disposal of hazardous materials is regulated by federal, state, and local agencies and would not contribute to cumulative regional impacts. Undocumented soil and groundwater contamination is generally localized and, where discovered, can be remediated without impacts to adjacent properties. This impact would be **less than significant**.

Hazardous materials concerns, including building materials and existing soil and groundwater that could be encountered on the proposed project site during demolition and grading, are generally site-specific. The Phase 1 Environmental Site Assessment included a review of adjacent properties that could have existing contamination and found no evidence of an unmitigated hazardous materials release in the project vicinity that could combine with potential releases on the proposed project site to result in a cumulatively considerable impact. No adjacent construction activities that could combine with project effects related to demolition are occurring or planned.

During construction, the proposed project could generate hazardous wastes. Site-specific abatement and demolition processes would be implemented to reduce the potential for negative effects to the adjacent environment. Compliance with all applicable federal, state, and local regulations related to hazards and hazardous materials would be required on a project-by-project basis and site-specific investigations would be conducted for all projects to determine potential impacts and mitigation. Although household-type hazardous materials may be used during project operation, the proposed project would likely result in an overall decrease in hazardous materials use on the site. Therefore, the cumulative potential of the proposed project to expose people to hazardous materials or situations would be a **less-than-significant cumulative impact**.

Mitigation Measure 5.6-4

No mitigation is required.

5.7 NOISE

This section includes a description of acoustic fundamentals, existing ambient noise conditions, and an analysis of potential short- and long-term noise and vibration impacts associated with implementation of the proposed project. Mitigation measures are recommended, as necessary, to reduce potentially significant adverse noise impacts. The information contained in this section is based, in part, on the City of Sacramento 2030 General Plan, City of Sacramento General Plan Master Environmental Impact Report (EIR), documents prepared by the project applicant, and data from Section 5.8, “Transportation and Traffic.”

The Master EIR certified in connection with adoption of the 2030 General Plan in March 2009 included an extensive analysis of noise and vibration. The Master EIR analysis considered effects related to a variety of noise sources including vehicular traffic on roads, freeways and highways, aircraft, light rail and stationary sources. The Master EIR evaluated the effects of development that could occur under the new general plan, and identified and evaluated the effects of the project and future development, including analysis of growth-inducing effects and irreversible environmental effects. The discussion of noise and vibration in the Master EIR (see Chapter 6.8) is incorporated here by reference pursuant to CEQA Guidelines section 15177. The Master EIR may be reviewed at www.sacgp.org.

Several comments pertaining to noise and/or vibration were received during public review of the Notice of Preparation (NOP). These comments raised concerns about potential noise and vibration levels that could occur in the nearby community during construction activities. These concerns are addressed in this section of the EIR.

5.7.1 ENVIRONMENTAL SETTING

BACKGROUND ON ENVIRONMENTAL NOISE AND VIBRATION

FUNDAMENTALS OF ENVIRONMENTAL SOUND AND NOISE

Acoustics is the scientific study that evaluates perception and properties of sound waves. Sound that is loud, disagreeable, unexpected, or unwanted is generally defined as noise. Common sources of environmental noise and associated noise levels are presented in Table 5.7-1.

Table 5.7-1 Typical Noise Levels		
Common Outdoor Activities	Noise Level (dB)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck moving at 50 mph at 50 feet	80	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, Gas lawnmower at 100 feet	70	Vacuum cleaner at 10 feet, Normal speech at 3 feet
Commercial area, Heavy traffic at 300 feet	60	
Quiet urban daytime	50	Large business office, Dishwasher in next room
Quiet urban nighttime	40	Theater, Large conference room (background)
Quiet suburban nighttime	30	Library, Bedroom at night, Concert hall (background)
Quiet rural nighttime	20	Broadcast/Recording Studio
	10	
Threshold of Human Hearing	0	Threshold of Human Hearing

Notes: dBA=A-weighted decibels; mph=miles per hour
Source: California Department of Transportation (Caltrans) 2009:2-21

Sound Properties

Sound levels are measured using the decibel scale, developed to relate to the range of human hearing. A decibel is logarithmic; it does not follow normal algebraic methods and cannot be directly summed. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). A sound level increase of 10 dB corresponds to 10 times the acoustical energy, and an increase of 20 dB equates to a 100 fold increase in acoustical energy.

The human ear is not equally sensitive to loudness at all frequencies in the audible spectrum. To better relate overall sound levels and loudness to human perception, frequency-dependent weighting networks were developed, identified as A through E. There is a strong correlation between the way humans perceive sound and A-weighted sound levels. For this reason the A-weighted sound levels are used to predict community response to noise from the environment, including noise from transportation and stationary sources, and are expressed as A-weighted decibels. All sound levels discussed in this section are A-weighted decibels unless otherwise noted.

Noise can be generated by a number of sources, including mobile sources such as automobiles, trucks, and airplanes and stationary sources such as activity at construction sites, machinery, and commercial and industrial operations. As sounds travels through the atmosphere from the source to the receiver, noise levels attenuate (i.e., decrease) depending on ground absorption characteristics, atmospheric conditions, and the presence of physical barriers. Noise generated from mobile sources generally attenuate at a rate of 4.5 dB per doubling of distance from the source. Noise from stationary sources spread with more spherical dispersion patterns that attenuate at a rate of 6 to 7.5 dB per doubling of distance from the source.

Atmospheric conditions such as wind speed, wind direction, turbulence, temperature gradients, and humidity also alter the propagation of noise and affect levels at a receiver. Furthermore, the presence of a barrier (e.g., topographic feature, intervening building, and dense vegetation) between the source and the receptor can provide substantial attenuation of noise levels at the receiver. Both natural (e.g., berms, hills, and dense vegetation) and human-made features (e.g., buildings and walls) may function as noise barriers.

All buildings provide some exterior-to-interior noise reduction. The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more. It should be noted that the area surrounding the project site is predominantly older single family homes constructed as early as the 1930s.

Common Noise Descriptors

The intensity of environmental noise fluctuates over time, and several different descriptors of time-averaged noise levels are used. The selection of a proper noise descriptor for a specific source depends on the spatial and temporal distribution, duration, and fluctuation of both the noise source and the environment. The noise descriptors most often used to characterize environmental noise are defined below (Caltrans 2009:2-52).

- Equivalent Noise Level (L_{eq}): The average noise level during a specified time period; that is, the equivalent steady-state noise level in a stated period of time that would contain the same acoustic energy as the time-varying noise level during the same period (i.e., average noise level).
- Maximum Noise Level (L_{max}): The highest instantaneous noise level during a specified time period.
- Minimum Noise Level (L_{min}): The lowest instantaneous noise level during a specified time period.
- Day-Night Noise Level (L_{dn}): The 24-hour L_{eq} with a 10-dB penalty applied during the noise-sensitive hours from 10 p.m. to 7 a.m., which are typically reserved for sleeping.
- Community Noise Equivalent Level (CNEL): Similar to the L_{dn} described above with an additional 5-dB penalty applied during the noise-sensitive hours from 7 p.m. to 10 p.m., which are typically reserved for evening relaxation activities.
- Single Event Noise Levels (SEL): Sounds that occur in an irregular or non-repetitive manner, which makes them difficult to anticipate; these are usually measured by L_{max} noise levels.

Community noise is commonly described in terms of the ambient noise level, which is defined as the all-encompassing noise level associated with a given noise environment. The L_{eq}, or average noise level over a given period of time, is the foundation of composite noise descriptors such as L_{dn} and CNEL, which effectively indicate community response to ambient noise levels.

Effects of Noise on Humans

Excessive and chronic (long-term) exposure to elevated noise levels can result in auditory and non-auditory effects on humans. Auditory effects of noise on people are those related to temporary or permanent hearing loss caused by loud noises. Non-auditory effects of exposure to elevated noise

levels are those related to behavior and physiology. The non-auditory behavioral effects of noise on humans are primarily subjective effects such as annoyance, nuisance, and dissatisfaction, which lead to interference with activities such as communications, sleep, and learning. The non-auditory physiological health effects of noise on humans have been the subject of considerable research into possible correlations between exposure to elevated noise levels and health problems, such as hypertension and cardiovascular disease. The mass of research implies that noise-related health issues are predominantly the result of behavioral stressors and not a direct noise-induced response. The extent to which noise contributes to non-auditory health effects remains a subject of considerable research, with no definitive conclusions.

Negative effects of noise exposure include physical damage to the human auditory system, interference with daily activities, sleep disturbance, and disease. Exposure to noise may result in physical damage to the auditory system, which may lead to gradual or traumatic hearing loss. Gradual hearing loss is caused by sustained exposure to moderately high noise levels over a period of time; traumatic hearing loss is caused by sudden exposure to extremely high noise levels over a short period. Gradual and traumatic hearing loss both may be permanent. In addition, noise may interfere with or interrupt sleep, relaxation, recreation, and communication. Although most interference may be classified as annoying, the inability to hear a warning signal (for example) may be considered dangerous. Noise may also be a contributor to diseases associated with stress, such as hypertension, anxiety, and heart disease. The degree to which noise contributes to such diseases depends on the frequency, bandwidth, and level of the noise and the exposure time (Caltrans 2009:2-65, 2-66).

Sleep Disturbance

It is estimated that only 10 to 20 percent of the reported cases of sleep disturbance are for reasons relating to transportation noise. Most studies focus on investigating possible secondary effects of sleep disturbance, including reduced perceived sleep quality, increased fatigue, depressed mood or wellbeing, and decreased performance (Carter 1996, Carter et al. 1993, Passchier-Vermeer 2000, Pearson et al. 1995). Although no specific long-term health effects have been clearly linked with sleep disturbance, sleep disturbance is recognized as intrinsically undesirable and, thus, is considered an adverse noise impact in and of itself. Sleep disturbance studies have developed predictive models of awakenings caused by transportation noise sources. Predicted awakening percentages as a function of indoor SELs are shown in Table 5.7-2.

Table 5.7-2 Sleep Disturbance as a Function of Single Event Noise Exposure	
Indoor SEL (dBA)	Average Percent Awakened
45	0.8%
50	1.0%
55	1.2%
60	1.5%
65	1.8%
70	2.2%
75	2.8%
80	3.4%
85	4.2%

Notes: Average Percent Awakened = 0.58 + (4.30 * 10^{-8}) * SEL
Source: Finegold and Bartholomew, 2001. "A Predictive Model of Noise Induced Awakenings from Transportation Sources" In *Noise Control Engineering Journal*, 2001: pp. 331-338.

FUNDAMENTALS OF VIBRATION

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of ground vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, and landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, and construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root mean square (RMS) vibration velocity. Peak particle velocity is defined as the maximum instantaneous positive or negative peak of a vibration signal. Peak particle velocity is typically used in the monitoring of transient and impact vibration and has been found to correlate well with the stresses experienced by buildings (Federal Transit Administration [FTA] 2006:7-3; Caltrans 2004:5). PPV and RMS vibration velocity are normally described in inches per second (in/sec).

Although PPV is appropriate for evaluating the potential for building damage, it is not always suitable for evaluating human response. It takes some time for the human body to respond to vibration signals. In a sense, the human body responds to average vibration amplitude. The RMS of a signal is the average of the squared amplitude of the signal, typically calculated over a 1-second period. As with airborne sound, the RMS velocity is often expressed in decibel notation as vibration decibels (VdB), which serves to compress the range of numbers required to describe vibration (FTA 2006:7-3). This is based on a reference value of 1 micro (μ) in/sec.

The typical background vibration-velocity level in residential areas is approximately 50 VdB. Ground vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly

perceptible levels (FTA 2006). Table 5.7-3 describes the general human response to different levels of ground vibration-velocity levels.

Table 5.7-3 Human Response to Different Levels of Ground Noise and Vibration

Vibration-Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find that transportation-related vibration at this level is unacceptable.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.
Source: FTA 2006:7-8

NOISE SOURCES

The existing ambient noise environment in the immediate project vicinity is defined primarily by traffic on local roadways and to a lesser extent by occasional aircraft overflights and train passages. On-site activities such as vehicular movements, including delivery trucks and ambulances for the nine-bed emergency department, and mechanical equipment operations also contribute to the ambient noise environment. The site is approximately 10 miles southeast of the Sacramento International Airport and approximately 800 feet west of the Union Pacific Railroad tracks. Although railroad passages and aircraft overflights are audible at the project site, distance from source to receptor and, in the case of railroad noise, shielding by intervening residences diminishes the perceived level of noise from these sources at the project site (Bollard 2013).

SENSITIVE LAND USES

Noise-sensitive land uses generally include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern due to the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Parks, schools, historic sites, cemeteries, and recreation areas are also generally considered sensitive to increases in exterior noise levels. Places of worship, and other similar places where low interior noise levels are of great importance, are also considered noise-sensitive. Noise-sensitive land uses are also considered to be vibration-sensitive. Specifically, commercial and industrial buildings where ground vibration (including vibration levels that may be well below those associated with human annoyance) could interfere with operations within the building would be most sensitive to ground vibration (e.g., hospitals, laboratories).

The project site is surrounded by single-family residential land uses, and the most conservative (single-family residential) noise standards are used to evaluate potential project-related noise and vibration impacts on these uses. Additionally, the adjacent medical office building, located immediately east of the project site, is considered a sensitive receptor to vibration due to the presence of medical equipment within it.

AMBIENT NOISE LEVELS

To accurately characterize the existing ambient noise environment, a combination of short-term noise monitoring and roadway noise modeling was completed. A total of 6 long-term (24-hour) noise measurements were conducted by Bollard Acoustical Consultants in May and June of 2011. Noise measurements were taken along the perimeter of the project site to capture the potential difference in measured noise levels from one end of the site to the other. Sound level measurement locations are shown on Exhibit 5.7-1. Table 5.7-4 summarizes the existing ambient noise levels in the project vicinity.

Table 5.7-4 Summary of Existing Ambient Noise Level Measurements

Site Location	Date	L_{dn}	Daytime		Nighttime	
			L_{eq}	L_{max}	L_{eq}	L_{max}
1	May 26, 2011	58	57	62-92	49	59-69
2	May 26, 2011	54	49	58-73	47	46-62
3	June 1, 2011	55	52	61-74	48	53-72
4	May 30, 2011	61	56	71-80	54	69-80
5	May 30, 2011	55	47	55-67	49	55-59
6	June 1, 2011	58	56	64-80	50	62-73

Notes: dB = A-weighted decibels; CNEL = community noise equivalent level; L_{dn} = day-night noise level; L_{eq} = energy-equivalent noise level; L_{max} = maximum noise level.
Site numbers correspond to locations shown in Exhibit 5.7-1.
Source: Monitoring performed by Bollard Acoustical Consultants in 2011

With the exception of Site 4, which is located in the southeast corner of the project site, the measured ambient noise levels were all below 60 dB L_{dn}, which is considered acceptable for residential land uses by the City of Sacramento (refer to Section 5.7.2, below, for further clarification).

Existing traffic noise levels were modeled for major roadway segments in the project vicinity using project-specific traffic data, in accordance with the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108). The modeling assumed no natural or human-made shielding. The extent to which existing land uses are affected by existing traffic noise depends on their respective proximity to the roadways and their respective sensitivity to noise.

Table 5.7-5 summarizes the modeled existing traffic noise levels at 50 feet from the centerline of several local roadways in the vicinity of the project site that could be affected by project implementation and identifies the distances from roadway centerline to the 70-dB, 65-dB, 60-dB, and 55-dB CNEL/L_{dn} traffic noise contours.

Exhibit 5.7-1 **Noise Monitoring Locations**

Table 5.7-5 Summary of Modeled Existing Traffic Noise Levels

Roadway	Location	CNEL/L_{dn} (dB) at 100 feet from Road Centerline	Distance (feet) from Roadway Centerline to CNEL/L_{dn}(dB)			
			70	65	60	55
F Street	Between 53rd Street and Elvas Avenue	56.3	2	7	21	67
F Street	Between 52nd Street and 53rd Street	55.3	2	5	17	54
F Street	Between 50th Street and 52nd Street	53.7	1	4	12	37
53rd Street	Between H Street and F Street	57.1	3	8	26	82
52nd Street	Between H Street and F Street	51.0	1	2	6	20
51st Street	Between H Street and F Street	49.9		2	5	16
50th Street	Between H Street and F Street	53.6	1	4	11	36
Coloma Way	Between E Street and D Street	51.3	1	2	7	22
Coloma Way	Between D Street and B Street	49.1		1	4	13
D Street	Between Coloma Way and 52st Street	49.4		1	4	14
C Street	Between Coloma Way and 52st Street	47.0		1	2	8
51st Street	Between C Street and Brand Way	47.7		1	3	9

Notes: CNEL = Community Noise Equivalent Level; dB = A-weighted decibels; L_{dn} = day-night average noise level.
Refer to Appendix F for detailed modeling input data and output results.
Source: Data modeled by Ascent Environmental 2013

5.7.2 REGULATORY SETTING

FEDERAL

FEDERAL NOISE CONTROL ACT OF 1972

The basic motivating legislation for noise control in the U.S. was provided by the Federal Noise Control Act (1972), which addressed the issue of noise as a threat to human health and welfare, particularly in urban areas. In response to the Noise Control Act, the U.S. Environmental Protection Agency (EPA) published Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA 1974). In summary, EPA findings were that sleep, speech, and other types of essential activity interference could be avoided in residential areas if the L_{dn} did not exceed 55 dBA outdoors and 45 dBA indoors. The EPA intent was not that these findings necessarily be considered as mandatory standards, criteria, or regulatory goals, but as advisory exposure levels below which there is no reason to suspect that the general population would be at risk from any of the identified health or welfare effects of noise. The EPA Levels report also identified 5 dBA as an adequate margin of safety before an increase in noise level would produce a significant increase in the severity of community reaction (i.e., increased complaint frequency, annoyance percentages, etc.) provided that the existing baseline noise exposure did not exceed 55 dBA L_{dn}.

Table 5.7-6 provides examples of protective noise levels recommended by the EPA. The Occupational Safety and Health Administration (OSHA) regulations protect the hearing of workers exposed to occupational noise (OSHA n.d.).

Table 5.7-6 Recommended Noise Levels for the Protection of Public Health and Welfare

Effect	Level	Area
Hearing Loss	$L_{eq(24)}$ > 70 dBA	All areas.
Outdoor Activity Interference and Annoyance	L_{dn} >55 dBA	Outdoors in residential areas and farms and other areas where people spend widely varying amounts of time and other places in which quiet is a basis for use.
	$L_{eq(24)}$ > 55 dBA	Outdoor areas where people spend limited amounts of time, such as school yards and playgrounds.
Indoor Activity Interference and Annoyance	L_{dn} > 45 dBA	Indoor residential areas.
	$L_{eq(24)}$ > 45 dBA	Other indoor areas with human activities, such as schools.

Notes: dBA = A-weighted decibels; L_{dn} = day-night noise level; $L_{eq(24)}$ = energy-equivalent noise level over a 24-hour period.
Source: EPA 1974

FEDERAL TRANSIT ADMINISTRATION

FTA has developed an extensive methodology and significance criteria to evaluate noise impacts from surface transportation modes (i.e., private motor vehicles, trucks, buses, and rail), as presented in Transit Noise Impact and Vibration Assessment (May 2006). The scientific rationale for FTA's criteria is clearly explained and is widely accepted by acoustic scientists. The FTA incremental noise impact criteria are essentially those presented in Table 5.7-11, as referenced in General Plan Policy EC 3.1.2, below. These criteria are based on findings in EPA Levels and subsequent studies of annoyance in communities affected by transportation noise. Starting from the EPA's definition of minimal noise impact as a 5 dBA change from a "safe" ambient level of 50 dBA (using L_{dn} or peak hour L_{eq}, depending on land use), the FTA extended the incremental impact criteria to higher baseline ambient levels by requiring that increased adverse community reaction be kept below a defined minimal level (i.e., a 2 percent increase the number of residents reporting a "high" level of annoyance, as measured by the survey). As baseline ambient levels increase, it takes a smaller and smaller increment to produce the same increase in annoyance (e.g., in residential areas with a baseline ambient noise level of 50 dBA L_{dn}, a 5 dBA increase in noise levels would be expected to increase community annoyance by 2 percent, but at a baseline ambient noise level of 70 dBA L_{dn}, a 1 dBA increase in noise levels would be expected to have the same effect on community annoyance levels.

The FTA has also developed criteria for judging the significance of ground-borne vibration, as shown in Table 5.7-7. Vibration magnitude is measured in VdB relative to a reference level of 1 micro-inch per second, the human threshold of perception.

Table 5.7-7 FTA Groundborne Vibration Impact Criteria			
Land Use Category	Groundborne Vibration Impact Levels (VdB re 1 micro-inch/second)		
	Frequent Events[1]	Occasional Events[2]	Infrequent Events[3]
Category 1: Buildings where vibration would interfere with interior operations	65[4]	65[4]	65[4]
Category 2: Residences and buildings where people normally sleep	72	75	80
Category 3: Institutional land uses with primarily daytime uses	75	78	83

Notes:
[1] Frequent Events – more than 70 vibration events of the same source per day.
[2] Occasional Events = between 30 and 70 vibration events of the same source per day.
[3] Infrequent Events – fewer than 30 vibration events of the same source per day.
[4] This criterion limit is based on levels that are acceptable for most moderately sensitive equipment, such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels.
Source: Federal Transit Administration. 2006 (May). Transit Noise Impact and Vibration Assessment. www.fta.dot.gov/documents/FTA_Noise_and_Vibration_Manual.pdf. Accessed July 19, 2013.

Standards have also been established to address the potential for construction-caused vibration damage to buildings by the operation of heavy-duty construction equipment. Varying criteria have been developed to address the appropriate level of vibration considered acceptable before it may result in damage to structures or varying building types (FTA 2006). Table 5.7-8 identifies the incremental vibration level thresholds above which potential structural damage to nearby structures could occur.

Table 5.7-8 Summary of FTA-Recommended Vibration Damage Criteria		
Building Category	PPV (in/sec)	Approximate L_v[1]
Reinforced concrete, steel, or timber (no plaster)	0.5	102
Engineered concrete and masonry (no plaster)	0.3	98
Nonengineered timber and masonry buildings	0.2	94
Buildings extremely susceptible to vibration damage	0.12	90

Notes: FTA = Federal Transit Administration; in/sec = inches per second; PPV = peak particle velocity
[1] Root mean square velocity in decibels (VdB) referenced to 1 microinch per second.
Source: Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment.* Washington, DC. Page 12-13.

STATE

CALIFORNIA STANDARDS FOR NOISE-COMPATIBLE LAND USES

The State of California General Plan Guidelines (2003) encourages the use of L_{dn} or CNEL for evaluating noise compatibility of various land uses with the expected degree of noise exposure. The designation of a level of noise exposure as “normally acceptable” for a given land use category implies that the expected interior noise would be acceptable to the occupants without the need for any special structural acoustic treatment. The 2003 guidelines identify the suitability of various types of building construction relative to the range of customary outdoor noise exposures. The 2003 guidelines provide each local community some flexibility in setting local noise standards that allow for the variability in individual perceptions of noise in that community.

TITLE 24

Title 24, Part 6, Division T25, Chapter 1, Subchapter 1, Article 4, Sections T25–28 of the California Code of Regulations establish building standards applicable to all dwellings throughout the state. The code provides acoustical regulations requiring both exterior-to-interior sound insulation and sound and impact isolation between adjacent spaces of various occupied units. Title 24 regulations state that interior noise levels generated by exterior noise sources shall not exceed 45 dB L_{dn}, with windows closed, in any habitable room for general residential uses. An acoustical study must be conducted for new multifamily and hotel/motel buildings located in 60-dB L_{dn} contours to determine whether interior noise levels would exceed 45 dB L_{dn}. The study must also demonstrate how the proposed project has been designed to meet this interior noise level standard. Generally, the inclusion of noise-insulating windows and sound isolation materials in the project design are means of demonstrating compliance with this interior noise level standard.

LOCAL

SACRAMENTO CITY CODE

The City of Sacramento Noise Ordinance (Section 8.68 of the Sacramento City Code) states that it is unlawful for any person at any location within the City to create any noise that causes ambient noise levels at an affected receptor to exceed the noise standards shown in Table 5.7-9.

Table 5.7-9 Noise Ordinance Standards Applicable at Exterior Spaces of Residential Uses

Cumulative Duration of Intrusive Sound	Noise Metric	Daytime, dBA	Nighttime, dBA
Cumulative period of 30 minutes per hour	L_{50}	55	50
Cumulative period of 15 minutes per hour	L_{25}	60	55
Cumulative period of 5 minutes per hour	L_{08}	65	60
Cumulative period of 1 minute per hour	L_{02}	70	65
Level not to be exceeded for any time during an hour	L_{max}	75	70

Notes: Daytime is defined as 7 a.m. to 10 p.m. and Nighttime is defined as 10 p.m. to 7 a.m.
Each of the noise limits specified above shall be reduced by 5 dBA for impulsive or simple tone noise or for noises consisting of speech or music. If the existing ambient noise levels exceed that permitted in the first four noise-limit categories, the allowable limit shall be increased in 5 dB increments to encompass the ambient.
Source: City of Sacramento Noise Ordinance. www.qcode.us/codes/sacramento/view.php?topic=8-8_68-ii&frames=off.

With respect to construction noise, the City of Sacramento Noise Ordinance (Section 8.68.080) exempts noise generated by construction activities from the standards identified above in Table 5.7-9, as follows:

> E. Noise sources due to the erection (including excavation), demolition, alteration, or repair of any building or structure between the hours of seven a.m. and six p.m. on Monday, Tuesday, Wednesday, Thursday, Friday, and Saturday, and between nine a.m. and six p.m. on Sunday; provided, however that the operation of an internal combustion engine shall not be exempt pursuant to this subsection if such engine is not equipped with suitable exhaust and intake silencers which are in good working order. The director of building inspections may permit work to be done during the hours not exempt by this subsection in the case or urgent necessity and in

the interest of public health and welfare for a period not to exceed three days. Application for this exemption may be made in conjunction with the application for the work permit or during progress of the work.

CITY OF SACRAMENTO 2030 GENERAL PLAN

The General Plan focuses on the effect that noise from various sources has on the community. The noise element of the City of Sacramento 2030 General Plan is intended to ensure that noise control is incorporated into the planning process and to achieve and maintain appropriate noise levels for existing and proposed land uses. The following goals and policies of the City of Sacramento 2030 General Plan relating to noise would apply to the proposed project:

Goal EC 3.1 Noise Reduction. Minimize noise impacts on land uses and human activity to ensure the health and safety of the community.

- **Policy EC 3.1.1 Exterior Noise Standards.** The City shall require noise mitigation for all development where the exterior noise standards exceed those shown in Table EC-1 [Table 5.7-10], to the extent feasible.

Table 5.7-10 Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable"[1] (L_{dn}[2] or CNEL[3])[4]
Residential – Low Density Single Family, Duplex, Mobile Homes	60 dBA[5,6]
Residential – Multi-family	65 dBA
Urban Residential Infill[7] and Mixed-use Projects[8]	70 dBA
Transient Lodging – Motels, Hotels	65 dBA
Schools, Libraries, Churches, Hospitals, Nursing Homes	70 dBA
Auditoriums, Concert Halls, Amphitheaters	Mitigation based on site-specific study
Sports Arena, Outdoor Spectator Sports	Mitigation based on site-specific study
Playgrounds, Neighborhood Parks	70 dBA
Golf Courses, Riding Stables, Water Recreation, Cemeteries	75 dBA
Office Buidlings – Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

Notes:
[1] As defined by the Guidelines, "Normally Acceptable" means that the "specified land use is satisfactory, based upon the assumption that any building involved is of normal conventional construction, without any special noise insulation requirements."
[2] L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.
[3] CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.
[4] These standards shall not apply to balconies or small attached patios in multi-stories multi-family structures.
[5] dBA or A-weighted decibel, a measure of noise intensity.
[6] The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.
[7] With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High), Urban Center (Low or High), Urban Corridor (Low or High).
[8] All mixed-use projects located anywhere in the City of Sacramento.
Source: City of Sacramento. 2009. Sacramento 2030 General Plan Master Environmental Impact Report. Certified March 3, 2009.

- **Policy EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require mitigation for all development that increases existing noise levels by more than the allowable increment as shown in Table EC-2 [Table 5.7-11], to the extent feasible.

Table 5.7-11 Allowable Incremental Noise Increases			
Residences and buildings where people normally sleep[1]		Institutional land uses with primarily daytime and evening uses[2]	
Existing L_{dn}	Allowable Noise Increment	Existing L_{dn}	Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	4
70	1	70	4
75	0	75	1
80	0	80	0

Notes:
[1] This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.
[2] This category includes schools, libraries, theaters, and churches where it is important to avoid interference with such activities as speech, meditation, and concentration on reading material.
Source: City of Sacramento. 2009. Sacramento 2030 General Plan Master Environmental Impact Report. Certified March 3, 2009.

- **Policy EC 3.1.3 Interior Noise Standards.** The City shall require new development to include noise mitigation to assure acceptable interior noise levels appropriate to the land use type: 45 dBA L_{dn} for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour) for office buildings and similar uses.
- **Policy EC 3.1.4 Interior Noise Review for Multiple, Loud Short-Term Events.** In cases where new development is proposed in areas subject to frequent, high-noise events (such as aircraft over-flights, or train and truck pass-bys), the City shall evaluate noise impacts on any sensitive receptors from such events when considering whether to approve the development proposal, taking into account potential for sleep disturbance undue annoyance, and interruption in conversation, to ensure that the proposed development is compatible within the context of its surroundings.
- **Policy EC 3.1.5 Interior Vibration Standards.** The City shall require construction projects anticipated to generate a significant amount of vibration to ensure acceptable interior vibration levels at nearby residential and commercial uses based on the current City or Federal Transit Administration (FTA) criteria.
- **Policy EC 3.1.7 Vibration.** The City shall require an assessment of the damage potential of vibration-induced construction activities, highways, and rail lines in close proximity to historic buildings and archaeological sites and require all feasible mitigation measures be implemented to ensure no damaged would occur.
- **Policy EC 3.1.10 Construction Noise.** The City shall require development projects subject to discretionary approval to assess potential construction noise impacts on nearby sensitive uses and to minimize impacts on these uses to the extent feasible.

- **Policy EC 3.1.11 Alternatives to Sound Walls.** The City shall encourage the use of design strategies and other noise reduction methods along transportation corridors in lieu of sound walls to mitigate noise impacts and enhance aesthetics.
- **Policy EC 3.1.12 Residential Streets.** The City shall discourage widening streets or converting streets to one-way in residential areas where the resulting increased traffic volumes would raise ambient noise levels.
- **Policy EC 3.1.13 Vehicle Purchase.** The City shall purchase vehicles and equipment with low noise generation and maintain them to minimize noise.

Goal EC 3.2 Airport Noise. Minimize exposure to high noise levels in areas of the City affected by Mather, Executive, McClellan, and Sacramento International Airports.

- **Policy EC 3.2.1 Land Use Compatibility.** The City shall limit residential development within the 65 dBA CNEL airport noise contour, or in accordance with plans prepared by the Airport Land Use Commission, and shall only approve noise-compatible land uses.
- **Policy EC 3.2.2 Hazardous Noise Protection.** The City shall discourage outdoor activities or uses in areas outside the 70 dBA CNEL airport noise contour where people could be exposed to hazardous noise levels.
- **Policy EC 3.2.3 Cooperative Noise Reduction.** The City shall work with the Sacramento County Airport Systems (SCAS) to monitor aircraft noise, implement noise-reducing operation measures (i.e., Fly Quiet, Fly Neighborly programs), and promote pilot awareness of noise sensitive land uses.

5.7.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

DEMOLITION AND CONSTRUCTION

To assess the potential short-term noise impacts from construction, including demolition, sensitive receptors and their relative levels of exposure were identified. Construction noise generated by the proposed project was predicted using the *Transit Noise and Vibration Impact Assessment* methodology for construction noise prediction (FTA 2006). The noise emission levels for construction vehicles and equipment referenced and usage factors are based on FHWA's Roadway Construction Noise Model (FHWA 2006). Noise levels of specific construction equipment and resultant noise levels at the locations of sensitive receptors were calculated.

Additionally, groundborne-vibration impacts were quantitatively assessed based on existing documentation (e.g., vibration levels produced by specific construction equipment operations) and the distance of sensitive receptors from the given source. Vibration sources and levels were calculated using the FTA methodology for construction and transportation vibration sources (FTA 2006). While

CEQA states that the potential for any excessive groundborne vibration levels must be analyzed, it does not define “excessive,” and there are no federal or state standards for groundborne vibration. However, the City of Sacramento has established thresholds for construction and transit-related vibration levels.

OPERATION

The primary source of existing ambient noise in the vicinity of the proposed project site is vehicle traffic. As a result, the noise modeling conducted for the proposed project focuses on the noise resulting from traffic on roadways in the vicinity of a project. Noise modeling outputs are included as Appendix F. Modeling procedures involve the calculation of existing and future vehicular noise levels along individual roadway segments in the project vicinity. This task was accomplished using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108), which calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. Daily traffic volumes used as data inputs in the noise prediction model were provided by the project traffic engineer, and roadway noise was calculated in terms of L_{dn}. As noted in Chapter 5 “Introduction to the Analysis,” Section 15125 of the CEQA guidelines requires an EIR to describe existing conditions in the vicinity of a project, including conditions on a project site, to provide the “baseline condition” against which project-related impacts are compared. The baseline condition is typically the physical condition that exists when the NOP is published. At the time of the NOP publication, Sutter Memorial Hospital and the associated medical and office uses were in full operation on the Sutter Memorial Hospital site. Therefore, this section analyzes the potential noise impacts of the proposed project in comparison to the existing uses on the project site.

For stationary noise during operation, the estimated noise level at sensitive receptors is estimated using the proposed location of the potential noise source and typical noise levels associated with that equipment. Distance to receptors and intervening structures are also considered in determining noise levels.

For purposes of determining potential vibration impacts on older structures, the threshold for historic buildings and archaeological sites (listed below) was applied to all older buildings in the project vicinity, regardless of their official historic designation. For a discussion of potential impacts to buildings that are listed, or eligible for listing, on the federal, State, or City registers of historic places, please see Section 5.5, “Cultural Resources,” of this Draft EIR.

STANDARDS OF SIGNIFICANCE

The City’s standards of significance for noise are generally obtained from the City’s General Plan and the standards identified in the City’s noise ordinance. For the purposes of this EIR, noise and vibration impacts are considered significant if the proposed project would:

- result in exterior noise levels in the project area that are above the upper value of the normally acceptable category for various land uses due to the project’s noise level increases;

- result in residential interior noise levels of L_{dn} 45 dB or greater caused by noise level increases due to the project;
- result in construction noise levels that exceed the standards in the City of Sacramento Noise Ordinance;
- expose existing and/or planned residential and commercial areas to vibration-peak-particle velocities greater than 0.5 inch per second due to project construction;
- expose adjacent residential and commercial areas to vibration peak particle velocities greater than 0.5 inches per second due to highway traffic or rail operations; or
- expose historic buildings and archaeological sites to vibration-peak-particle velocities greater than 0.25 inches per second due to project construction, highway traffic, or rail operations.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.7-1	**Increase in ambient noise levels during operation.** Operation of the proposed project would result in additional residential uses at the project site compared to existing conditions, however, when compared to the existing use type and intensity at the project site, the existing ambient noise levels attributable to development at the project site would generally decrease. Incremental increases in noise would occur along certain local roadways and receptors, but no substantial increase in ambient noise levels would occur. Therefore, this impact would be less than **less than significant**.

LOCAL ROADWAY NOISE

As noted above, potential traffic-related noise increases resulting from implementation of the proposed project were evaluated based on whether they would result in a substantial increase (per Table 5.7-10) in traffic noise at nearby sensitive receptors. The FHWA Traffic Noise Prediction Model (FHWA-RD-77-108) was used to model traffic noise levels along affected roadways, based on daily traffic volumes and their distribution, from the traffic analysis prepared for the proposed project. The contribution of the proposed project to the existing traffic noise levels along area roadways was determined by comparing the modeled noise levels at 50 feet from the roadway centerline under no-project and plus-project conditions. As the topography in the project area is generally flat, modeling assumed flat topographical conditions and did not include offsets to account for site-specific roadway conditions, which are considered minor.

Operation of the proposed project would change the type and intensity of use at the project site. It would also modify the potential distribution of traffic in the nearby neighborhood, which could result in an increase in average daily vehicle trips along certain roadway segments in the project area. Based on the type of use proposed, the majority of trips would occur during the a.m. and p.m. peak periods. Thus, impacts throughout the day and during nighttime would be minor. Table 5.7-12 summarizes the future traffic noise levels at 50 feet from the centerline of affected roadway segments near the project site with operation of the proposed project. The table shown below also evaluates the potential change in noise

levels compared to existing roadway noise levels and compares this change against the established significance criteria identified in Table 5.7-11 of the City of Sacramento 2030 General Plan.

Table 5.7-12 Traffic Noise Levels With and Without the Proposed Project

Roadway	Location	Noise Levels L_{dn}				
		Existing	Existing Plus Project	Maximum Increase over Existing	Allowable Incremental Increase	Significant Impact?
F Street	Between 53rd Street and Elvas Avenue	56.3	54.1	-2.1	3	No
F Street	Between 52nd Street and 53rd Street	55.3	53.6	-1.7	3	No
F Street	Between 50th Street and 52nd Street	53.7	51.7	-1.9	3	No
53rd Street	Between H Street and F Street	57.1	50.1	-7.0	3	No
52nd Street	Between H Street and F Street	51.0	50.1	-0.9	3	No
51st Street	Between H Street and F Street	49.9	50.8	0.9	5	No
50th Street	Between H Street and F Street	53.6	50.5	-3.1	3	No
Coloma Way	Between E Street and D Street	51.3	49.1	-2.3	3	No
Coloma Way	Between D Street and B Street	49.1	47.4	-1.8	5	No
D Street	Between Coloma Way and 52st Street	49.4	50.0	0.6	5	No
C Street	Between Coloma Way and 52st Street	47.0	47.5	0.6	5	No
51st Street	Between C Street and Brand Way	47.7	47.9	0.2	5	No

Notes: CNEL = Community Noise Equivalent Level; dB = A-weighted decibels; L_{dn} = day-night average noise level.
Refer to Appendix F for detailed modeling input data and output results.
Source: Data modeled by Ascent Environmental 2013

Based on the modeling conducted, the following changes would occur with operation of the proposed project, compared to noise levels without the project:

- Changes in traffic noise levels would range from a net decrease (up to -7.0 dBA L_{dn}) to a net increase of 0.9 dBA L_{dn}.
- The majority of roadway segments that were modeled would experience a decrease in local roadway noise levels during operation.
- Local roadway traffic noise would not result in a substantial increase in ambient traffic noise levels, per City of Sacramento standards, along any roadway segments. Local roadway traffic noise would increase by 0.9 dBA or less along 4 of the 12 modeled segments.

In addition, based on the highest modeled noise level for a roadway segment that would increase in daily traffic volume as a result of the proposed project, interior noise levels at residences along that segment would be approximately 30.8 dBA L_{dn} (assuming a 20 dBA exterior-to-interior reduction) as a result of the proposed project, which would not exceed the established interior noise standard of 45 dBA L_{dn}. Because the allowable incremental increase thresholds established by the City's General Plan would not be exceeded with implementation of the proposed project and interior noise standards within the surrounding neighborhood would be maintained, local roadway noise impacts on and by the

proposed project, including impacts on the adjacent single family uses surrounding the project site, would be **less than significant**.

Stationary Source Noise

The proposed project would involve the operation of mostly single-family residences with one mixed-use parcel, consistent with the existing residential neighborhood in which the project site is located. No substantial stationary source noises are anticipated as a result of operation of the proposed project. Some air conditioning units designed for heating and cooling single family residences would be installed within the boundaries of the project site, however the noise generated by these units would be consistent with existing noise from similar units in the existing neighborhood. No substantial increase in ambient noise levels or interior noise levels in excess of established standards are anticipated. Impacts would be **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.7-2	**Increase in ambient noise levels during construction.** During construction activities at the project site, heavy construction equipment and demolition activities would generate elevated noise levels at nearby receptors. Construction activities would be limited to the hours permitted by City Code Section 8.68, however interior noise levels would potentially exceed established standards for residential structures. Therefore, this impact would be **potentially significant**.

On-site Construction Activities

Construction activities associated with the proposed project would include site preparation (e.g., demolition, excavation, grading, and clearing), trenching, pouring of concrete foundations, paving, erection of structures and exterior enclosures, interior buildout, finishing, and cleanup. No pile driving or rock blasting is anticipated to occur. The construction equipment anticipated to be used for on-site demolition and construction may include heavy trucks, excavators, loaders, dozers, roller, rock crusher (demolition only), lifts, compressors, pumps, hand tools (e.g., jackhammers, drills), and other mobile and stationary equipment. Table 5.7-13 identifies typical noise levels associated with the use of this equipment. The noise levels of primary concern are typically associated with the demolition and site preparation because the equipment used to demolish the structure, clearing, grading, excavating, and removing material from the site typically generates noise levels (approximately 87 dBA at 50 feet) and its operation is exposed in the open air. Construction-related noise levels at noise-sensitive land uses close to the project site would be lower during other phases of project construction (exterior enclosure, interior buildout, finishing).

To comply with the City of Sacramento Noise Ordinance, noise from construction activities (including demolition) must occur between 7 a.m. and 6 p.m. Monday through Saturday and between 9 a.m. and 6 p.m. on Sunday. As long as construction activities are conducted within these prescribed hours,

construction-related noise is considered exempt from, and thereby in compliance with, the noise ordinance. As part of the proposed project, construction activities would not extend beyond the prescribed hours and would be considered to be in compliance with the standards of the City of Sacramento Noise Ordinance. The demolition contractor would generally operate onsite with normal working hours between 8 a.m. and 4:30 p.m. Monday through Friday.

Table 5.7-13 Noise Levels of Typical Construction Equipment

Equipment Type	Typical Noise Level (dBA) @ 50 feet	Usage Factor (%)
Air compressor	80	40
Backhoe	80	40
Concrete pump truck	82	20
Crane, mobile	85	16
Dozer	85	40
Drill rig truck	84	20
Excavator	85	40
Front-end loader	80	40
Generator	82	50
Jackhammer	85	20
Lift	85	20
Mounted impact hammer (hoe ram)	90	20
Pneumatic tools	85	50
Pumps	77	50
Roller	85	20
Soil mix drill rig	80	50
Welder	73	40
Trucks	74–81	

Notes: dBA = (A-weighted) decibels; Usage factor = the percent per hour equipment is in use.
All equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacturer-specified noise levels for each piece of heavy construction equipment.
Source: Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment.* Washington, DC. Pages 12-6 and 12-7.

However, the proposed project would involve the use of heavy equipment in close proximity to several existing residential structures, notably along the eastern and northern boundaries of the project site, where construction noise may result in an increase in interior noise levels beyond the City's established standard of 45 dBA L_{dn}. Noise levels for the demolition phase, which is anticipated to be the most noise intensive, were calculated with FHWA's Roadway Construction Noise Model, using the construction equipment anticipated for demolition activities and based on an average distance from the site boundary of 50 feet on a given day. The anticipated construction equipment in a particular location would include an excavator, a mounted impact hammer, and a backhoe. Operation of a rock crusher (as an optional project construction feature, to crush concrete from demolished buildings) at the center of the project site was also included in the calculation of demolition noise. Using these assumptions, construction noise generated at the proposed project site would be approximately 87.5 dBA L_{eq} at the nearest residential property line and 85 dB L_{eq} at the nearest residential structures (assumed to be 20

feet from the site boundary). The majority of residential structures are located further than this distance from the project site, and as a result, would experience equivalent or lower noise during daytime construction. Conservatively assuming that construction activities would occur for the entire period between 7 a.m. and 6 p.m., average daily noise levels at the nearest residential property line would be 68.7 dBA L_{dn} and 67.7 dBA L_{dn} at the exterior of the nearest residential structures. With respect to exterior noise standards, the City has established 60 dBA L_{dn} as the upper value of "Normally Acceptable," and construction activities associated with the proposed project would exceed this standard by approximately 8.7 dBA L_{dn}.

With respect to interior noise standards and taking into consideration an exterior-to-interior reduction of 20 dBA, interior noise levels at the closest residential receptors to the project site would be 47.7 dBA L_{dn}, which would be in excess of the established 45 dBA L_{dn} interior noise standard.

In summary, noise generated by construction activities at the project site would be consistent with the City of Sacramento Noise Ordinance but would potentially exceed the City's established interior and exterior noise standards for residential uses. Therefore, this impact during construction would be **potentially significant**.

Mitigation Measure 5.7-2a: Locate rock-crushing equipment away from residences.

The contractor shall locate any and all rock-crushing equipment to the interior site and no less than 200 feet from the nearest offsite structure.

Mitigation Measure 5.7-2b: Maximize distance between construction/demolition staging areas and residences.

The contractor shall ensure that the distances between on-site construction and demolition staging areas and the nearest surrounding residences are maximized to the extent possible (and in all instances are no less than 50 feet).

Mitigation Measure 5.7-2c: Require mufflers on all internal combustion engines.

All project construction and demolition equipment that use internal combustion engines shall be fitted with manufacturer's mufflers or equivalent. The contractor shall keep a monthly log of construction equipment maintenance and status to ensure that all onsite equipment is appropriately muffled.

Mitigation Measure 5.7-2d: Shielding of demolition noise by existing buildings.

Project construction and demolition activities shall be conducted to take maximum advantage of shielding afforded by existing buildings and structures. For example, where it is possible to conduct some demolition activities from within the shell of a building which is to be removed, thereby utilizing the existing building walls as a noise barrier, such an approach shall be utilized. Furthermore, buildings providing shielding of demolition activities shall be left in place during demolition of screened buildings, unless it is infeasible to do so.

Mitigation Measure 5.7-2e: Localized shielding of ground level noise sources with portable barriers.

Stationary, ground-level, noise sources, such as jack hammers, compressors, and pumps, which would cause a substantial increase in noise levels at nearby residences during use, shall be shielded from view (i.e. preventing direct line of sight from source to receptors and back) through the use of portable sound curtain systems to be located immediately adjacent to the noise source in question. Each enclosure, which can be constructed of a variety of materials including noise-insulating blankets/quilts, shall achieve a minimum noise reduction coefficient of 0.75 and a minimum sound transmission class of 25. The material of the barrier shall be weather and abuse resistant, and shall exhibit superior hanging and tear strength with a surface weight of at least 1 pound per square foot. When temporary barrier units are joined together, the mating surfaces shall be flush with each other. Gaps between barrier units, and between the bottom edge of the barrier panels and the ground, shall be closed with material that would completely close the gaps, and would be dense enough to attenuate noise. Placement, orientation, size, and density of acoustical barriers shall be reviewed and approved by a City-approved acoustical consultant upon initial installation.

Mitigation Measure 5.7-2f: Provide notification of noisiest construction/demolition activities to local community.

The contractor shall provide disclosure notices to nearby residences within 250 feet of the project site boundaries that identifies the dates and hours during which high-noise-generating construction (i.e. demolition of the existing onsite structures) will occur and the location of such activities. This notice shall be provided at least one week prior to initiation of such activities.

Implementation of these mitigation measures would reduce impacts associated with construction activities, including demolition and rock-crushing activities; however even with a reduction in construction noise through use of a temporary noise barrier, the City of Sacramento exterior noise standards at the nearby residential property lines would still be exceeded by approximately 8 dBA L_{dn} during construction.[1] In general, the achievable noise reduction from temporary barriers, such as noise

[1] Demolition of the upper floors of the Sutter Memorial Hospital structure located in the central portion of the site would be set back an additional 100 feet from the modeled construction noise. It should be noted that the anticipated equipment to be used during elevated demolition is a mounted impact hammer.

insulating blankets and quilts, is assumed to be approximately 10 dBA (NCHRP 1999). Additional reductions could be achieved through the construction of more substantial barriers along the exterior of the project site that would be greater in mass and cost and could result in additional impacts to the surrounding neighborhood. For this reason, these types of barriers are not considered feasible for the proposed project.

It should be noted that with implementation of the above mitigation and assuming a 20 dBA exterior-to-interior reduction in noise at the nearest residential uses, construction noise would also exceed interior noise standards established by the City during construction. Because the City's noise standards for single-family residential uses are anticipated to be exceeded during construction even with implementation of all feasible mitigation measures, this impact would remain **significant and unavoidable**.

IMPACT 5.7-3	**Off-site hauling activities.** Hauling demolition materials and other construction-related materials to and from the project site would temporarily increase ambient noise levels. However, noise levels along the haul routes would not exceed the City's established thresholds. Therefore, this impact would be **less than significant**.

During construction of the proposed project, demolition materials and other construction-related materials would be brought to and from the project site. The conceptual demolition plan identified a preliminary haul route that would require that construction-related truck trips be limited to using F Street between the project site and Elvas Street in an effort to reduce the potential disturbance to the surrounding residential neighborhood. Based on the anticipated number of daily truck trips (80) travelling to and from the project site, noise levels along F Street between the project site and Elvas Street would be anticipated to increase by approximately 0.3 dBA L_{dn} above existing conditions, which would not exceed the City's thresholds of significance for increases in ambient noise levels shown in Table 5.7-11. Therefore, this impact would be **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.7-4	**Construction vibration.** Construction activities at the project site would temporarily increase groundborne vibration as a result of demolition and the use of heavy pieces of construction equipment. However, based on the projected location of construction equipment, including the crushing equipment, construction vibration could exceed the City's established thresholds for historic buildings and archaeological sites. Therefore, this impact would be **potentially significant**.

The proposed project would involve the use of multiple pieces of heavy equipment during construction activities, as noted above under Impact 5.7-2. With respect to construction vibration, the two pieces of equipment that would generate the highest vibration levels are the mounted impact hammer (hoe ram) to be used during demolition of on-site structures and the crushing equipment, which would be located

in the approximate center of the project site. Table 5.7-14 identifies the typical vibration levels for these two types of construction equipment, as well as several others that would be used at the project site during construction.

Table 5.7-14 Representative Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)[1]	PPV at 50 feet (in/sec)[1]
Rock crushing equipment[2]	0.644	0.228
Large bulldozer	0.089	0.031
Hoe Ram	0.089	0.031
Trucks	0.076	0.027
Jackhammer	0.035	0.012
Small bulldozer	0.003	0.001

Notes: in/sec = inches per second
[1] Where PPV is the peak particle velocity
[2] Due to the similarities in terms of noise generated and the type of noise/vibration-generating event, vibration levels associated with a typical vibration impact hammer were used to approximate vibration levels of the proposed rock crushing equipment.
Source: Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment.* Washington, DC. Page 12-2.

As noted above, several of the adjacent offsite structures were built as early as the 1930s and could be more sensitive to elevated levels of vibration than more recently constructed buildings. As a result, the City's threshold of 0.25 in/sec PPV was applied to all receptors, including the commercial office building, in the vicinity of the project site.

Based on the location of existing onsite structures that would be demolished and the anticipated limits of demolition activities compared to the project site boundary, construction equipment is not anticipated to be located within 25 feet of existing adjacent structures, including the surrounding residences and medical office building. Except for the rock crushing equipment, construction equipment is not anticipated to exceed 0.089 in/sec PPV, at locations of at least 25 feet from offsite residential, commercial, and/or older structures. This level (0.089 in/sec PPV) would be substantially below the City's thresholds of 0.5 and 0.25 in/sec PPV for residential/commercial and historic structures, respectively. As shown in Table 5.7-14, the rock crushing equipment could exceed the City's thresholds at a distance of 25 feet. Although the conceptual demolition plan places this equipment near the center of the project site, the final demolition plan could place the equipment closer to offsite structures. This is a **potentially significant** impact.

Mitigation Measure 5.7-4

Implement Mitigation Measure 5.7-2a.

Mitigation Measure 5.7-2a would ensure that the rock crushing equipment that could be used to recycle building materials onsite would be located a minimum of 200 feet from any offsite structures. At 200 feet, the approximate PPV of the rock crushing equipment would be 0.028 in/sec, which would be less than the City's established vibration criteria for residential, commercial, and historic structures. As a result, this impact would be **less than significant** after mitigation.

IMPACT 5.7-5	**Operational vibration.** Operation of the proposed project would involve daily activities typical of a residential neighborhood. No substantial vibration-generating activities are anticipated on-site during project operation. Therefore, this impact would be **less than significant**.

As noted in the City's 2030 General Plan Master EIR, substantial operational vibration is typically associated with areas that experience rail and/or heavy truck traffic operations, such as a highway. The proposed project would involve the replacement of an existing hospital structure that does require some heavy truck deliveries with residential development, which is not considered a substantial generator of operational vibration. As noted on page 6.8-23 of the City's Master EIR, "it is not common for vibration from motor vehicles traveling on paved roads to cause disturbance in adjacent areas." As a result, substantial vibration in excess of established City thresholds is not anticipated and impacts would be **less than significant**.

Mitigation Measure

No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The geographic context for the analysis of cumulative noise impacts depends on the impact being analyzed. For construction impacts, only the immediate area around the project site would be included in the cumulative context. For example, construction impacts related to noise dissipate/attenuate quickly as the distance between the construction site and the receptor increases. As a result, only those construction projects located within a distance of no more than 1,000 feet would be considered within the cumulative context of construction noise.

For operational/roadway related impacts, the context is the increase in roadway volumes as a result of existing and future development in the City of Sacramento and Sacramento County. It should be noted that future roadway volumes contain regional growth calculations as they would affect traffic volumes in the vicinity of the project site, and are thus considered cumulative.

IMPACT 5.7-6	**Cumulative increase in ambient noise levels during operation.** The proposed project would not contribute to a substantial increase in ambient noise levels under cumulative conditions related to either local roadway (i.e. mobile source) or stationary source noise. Therefore, this impact would be **less than significant**.

LOCAL ROADWAY NOISE

Substantial permanent increases in noise would occur primarily as a result of increased traffic on local roadways due to the proposed project, related projects, and other regional growth in the future. Cumulative traffic-generated noise impacts have been assessed based on the total change from existing conditions to the future cumulative with-project condition. It should be noted that future

conditions were modeled with and without the extension of 53rd Street (see Chapter 7, Alternatives). As shown in Table 5.7-15, cumulative future traffic, including that as a result of the project, would not result in substantial increases in noise along any roadway segments compared to existing conditions. The highest increase in ambient noise levels would be 1.7 dBA L_{dn}. As no roadway segment would experience a substantial increase in noise over existing conditions with implementation of the proposed project, this cumulative impact is considered **less than significant**.

Table 5.7-15 Cumulative Traffic Noise Levels

Roadway	Location	Noise Levels, L_{dn}						
		Existing	Cumulative Plus Project w/ 53rd Street Extension	Maximum Increase	Cumulative Plus Project w/o 53rd Street Extension	Maximum Increase	Allowable Incremental Increase	Significant Impact?
F Street	Between 53rd Street and Elvas Avenue	56.3	54.5	-1.8	54.4	-1.9	3	No
F Street	Between 52nd Street and 53rd Street	55.3	54.4	-0.9	54.5	-0.8	3	No
F Street	Between 50th Street and 52nd Street	53.7	52.8	-0.8	53.1	-0.5	3	No
53rd Street	Between H Street and F Street	57.1	51.9	-5.2	50.9	-6.2	3	No
52nd Street	Between H Street and F Street	51.0	50.1	-0.9	50.3	-0.8	3	No
51st Street	Between H Street and F Street	49.9	51.1	1.2	51.5	1.6	5	No
50th Street	Between H Street and F Street	53.6	50.5	-3.1	50.8	-2.8	3	No
Coloma Way	Between E Street and D Street	51.3	49.1	-2.3	49.1	-2.3	3	No
Coloma Way	Between D Street and B Street	49.1	47.4	-1.8	47.2	-1.9	5	No
D Street	Between Coloma Way and 52st Street	49.4	50.7	1.3	50.9	1.6	5	No
C Street	Between Coloma Way and 52st Street	47.0	48.6	1.7	48.6	1.7	5	No
51st Street	Between C Street and Brand Way	47.7	47.9	0.2	47.9	0.2	5	No

Notes: CNEL = Community Noise Equivalent Level; dB = A-weighted decibels; L_{dn} = day-night average noise level.
Refer to Appendix F for detailed modeling input data and output results.
Source: Data modeled by Ascent Environmental 2013

STATIONARY SOURCE NOISE

There are no reasonably foreseeable projects in the vicinity of the project site that would be expected to generate substantial noise. Additionally, because the uses contemplated as part of the proposed project would not be considered uses that would generate substantial sources of stationary source noise, substantial noise in excess of City standards is not anticipated during operation of the proposed

project. Consequently, the potential cumulative stationary source operational noise impact of the proposed project is not considered cumulatively considerable with other projects in the area at any off-site receptor(s). This impact would be **less than significant**.

Mitigation Measure

No additional mitigation is required.

IMPACT 5.7-7	**Cumulative increase in ambient noise levels during construction.** No other projects are located within 1,000 feet of the project site that are considered cumulatively considerable with the construction noise associated with the proposed project. Therefore, this impact would be **less than significant**.

There are no reasonably foreseeable projects in the vicinity (within 1,000 feet) of the project site that would be expected to generate substantial construction noise. As a result, the potential for the construction noise of the project to combine with other offsite construction activities at nearby receptors is considered remote. Furthermore, implementation of Mitigation Measures 5.7-2a through 5.7-2f would reduce the perceived construction noise generated at the project site and the proposed project's contribution to the ambient noise environment during construction. Due to the lack of nearby construction projects that could be considered in conjunction with the proposed project and the measures to be implemented by the proposed project, the increase in ambient noise levels associated with construction of the proposed project would not be considered cumulatively considerable. This impact would be **less than significant**.

Mitigation Measure

No additional mitigation is required.

IMPACT 5.7-8	**Cumulative construction vibration.** No other projects are located within 1,000 feet of the project site that considered cumulatively considerable with the construction vibration associated with the proposed project. Therefore, this impact would be **less than significant**.

As discussed in Impact 5.7-3, construction of the proposed project would result in temporary increases in vibration levels in the vicinity of the project site but would not exceed established thresholds of significance. Project-specific impacts would be less than significant. Due to the localized nature of vibration impacts, the overall cumulative impact would also be limited due in part to the fact that all construction would not occur at the same time or at the same location. Only receptors located in close proximity to each construction site would be potentially cumulatively affected by each activity. As no other reasonably foreseeable projects are located within 1,000 feet of the project site, the potential for intense construction of two or more projects, including the proposed project, to simultaneously generate construction noise at existing nearby receptors is not present. Therefore, vibration from construction of the proposed project would not combine with construction vibration of other development projects in the

area and would not be cumulatively considerable. Therefore, the cumulative construction vibration impact of the proposed project would be **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.7-9	**Cumulative operational vibration.** No other projects are located within 1,000 feet of the project site that considered cumulatively considerable with the operational vibration associated with the proposed project. Therefore, this impact would be **less than significant**.

There are no reasonably foreseeable projects in the vicinity of the project site that would be expected to generate substantial levels of groundborne vibration. Additionally, since the uses contemplated as part of the proposed project would not be considered uses that would generate substantial sources of groundborne vibration, substantial vibration in excess of City standards is not anticipated during operation of the proposed project. Consequently, the potential cumulative operational groundborne vibration impacts of the proposed project are not considered cumulatively considerable with other projects in the area at any off-site receptor(s). This impact would be **less than significant**.

Mitigation Measure

No mitigation is required.

5.8 TRANSPORTATION AND TRAFFIC

This section of the EIR assesses the potential transportation and circulation impacts of the proposed Sutter Park Neighborhood project on the surrounding transportation system including roadways, bicycle/pedestrian facilities and transit facilities. This chapter of the EIR identifies the significant impacts of the proposed project and recommends mitigation measures to lessen their significance. All technical calculations can be found in Appendix G of the Draft EIR.

The transportation and circulation analysis in this EIR will address the following impact categories:

- Intersections,
- Roadway Segments,
- Construction-related Traffic impacts,
- Transit,
- Bicycle Facilities, and
- Pedestrian Circulation.

The cumulative impacts on roadway segments, transit, bicycle facilities, and pedestrian circulation from development associated with the general plan were identified and analyzed in the Master EIR, and this EIR reviews such issues on a project-specific basis only. This section analyzes near-term cumulative conditions, which include the completion of the Lane Conversion projects on J Street and Folsom Boulevard. This chapter analyzes the roadway, transit, bicycle, pedestrian, and construction components of the overall transpiration system under the following scenarios:

- Existing Conditions,
- Existing Plus Project Conditions,
- Near Term Cumulative No Project (with hospital),
- Near Term Cumulative Plus Project (without hospital, project built), and
- Existing Without Hospital Alternative (empty site; see Chapter 7, Alternatives).

The following information was used to prepare this section:

- data from the latest regional travel demand model prepared for the Sacramento Area Council of Governments' (SACOG) Regional Transportation Plan / Sustainable Communities Strategy, which is inclusive of the City's General Plan;
- the proposed project land use description and site plan;
- intersection count data collected by Kittelson;
- intersection signal timings provided by the City of Sacramento; and
- roadway segment daily count data collected by Fehr and Peers and Kittelson.

5.8.1 PROJECT DESCRIPTION

The proposed project site is bounded by F Street to the south, C Street to the north, 50th Street to the west, and Lagomarsino Way to the east. Prior to the proposed project implementation, Sutter Memorial Hospital will vacate the existing site and move operations to the new Women's and Children's Hospital (see Chapter 3,Project Description). The proposed project would include demolition of the Sutter Memorial Hospital facility (444,074 square feet) and the construction of 125 new homes and 5,000 square feet of retail space. As part of the approval for the proposed project, the site would be rezoned from Hospital (H) to Single Family Alternative (R-1A).

Access to the proposed project would be provided from three existing access points, F Street/53rd Street intersection, E Street, and F Street between 52nd Street and 53rd Street. Two additional access points are proposed with the project: A new full access movement is proposed at 51st Street just west of C Street. The second project access is proposed to/ from the fourth leg (north) at the 51st Street and F Street intersection. The proposed project site plan is shown in Exhibit 5.8-1. Two access scenarios were evaluated for the proposed project:

1. proposed project access, and

2. proposed project access alternative "No 53rd Street Extension". With this access alterative, the project site would not have access at 53rd Street and only a driveway for the adjacent medical building would be provided. The site plan for the No 53rd Street Extension scenario is illustrated in Exhibit 5.8-2.

Traffic conditions for the Existing without Hospital alternative was evaluated for an empty site. This information is provided to allow decision makers and the public to compare traffic conditions associated with the existing hospital use, with an empty site, and with the proposed project. The Existing without Hospital alternative is discussed and compared to the proposed project and other alternatives, in Chapter 7, Alternatives, of this Draft EIR.

EXISTING LAND USE

The proposed site is in the City of Sacramento limits and is zoned for Hospital (H) with the majority of surrounding property zoned for Standard Single Family (R-1) and adjacent property zoned for Residential Office (RO). The land uses in the vicinity of the site are residential homes, commercial buildings, and public use facilities. This section describes the environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated. The existing conditions of roadway, transit, bicycle and pedestrian transportation systems within the study area are described below.

STUDY AREA

For traffic analysis purposes, a set of intersections and roadway segments were selected. This selection was made based on the anticipated volume of project traffic and the distributional patterns of project traffic. The study intersections are listed below and graphically shown on Exhibit 5.8-3.

Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-1 **Site Plan – Proposed Project Access Scenario**

Source: Received from Kittelson & Associates, Inc. in 2013

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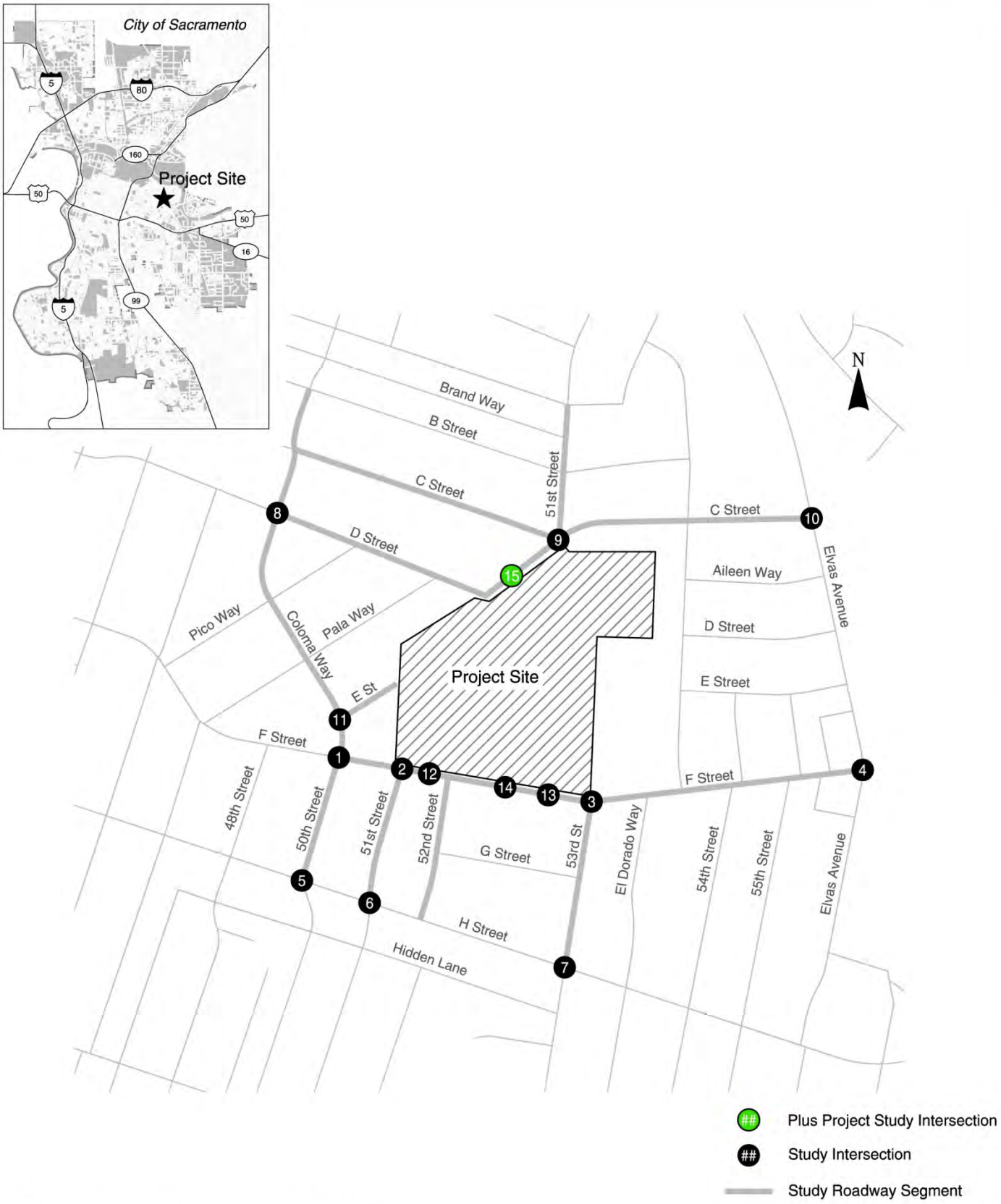
Exhibit 5.8-2 **Site Plan – No 53rd Street Extension**



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-3 **Site Vicinity Map**

The following intersections were studied:

1. F Street/50th Street
2. F Street/51st Street
3. F Street/53rd Street
4. F Street/Elvas Avenue
5. H Street/50th Street
6. H Street/51st Street
7. H Street/53rd Street
8. D Street/Coloma Way
9. 51st Street/C Street
10. C Street/Elvas Avenue
11. E Street/50th Street/Coloma Way
12. through 15. represent site access intersections

The study roadway segments are listed below:

1. 50th Street between F Street and H Street
2. 51st Street between F Street and H Street
3. 52nd Street between F Street and H Street
4. 53rd Street between F Street and H Street
5. F Street between 52nd and 53rd Street
6. F Street between 53rd Street and Elvas Avenue
7. Coloma Way between F Street and D Street
8. Coloma Way between D Street and B Street
9. D Street between 51st Street and Coloma Way
10. C Street between 51st Street and Coloma Way
11. 51st Street between C Street and Brand Way
12. E Street east of 50th Street/Coloma Way
13. F Street between 50th Street and 52nd Street
14. C Street between 51st Street and Elvas Avenue

5.8.2 ENVIRONMENTAL SETTING

This section describes the environmental setting, which is the baseline scenario upon which project-specific impacts are evaluated (see also Section 5.0, Introduction to the Analysis, for a discussion of the baseline conditions). This section describes the existing conditions of the roadway, transit, bicycle/pedestrian and transit systems.

ROADWAY NETWORK

Access to the project site is provided by a number of collector and local streets described below.

C Street is an east-west roadway that extends from 41st Street to Elvas Avenue. Within the study area, C Street provides one travel lane in each direction.

D Street is a two-lane, east-west roadway that extends from McKinley Boulevard to 51st Street. Within the study area, D Street provides one travel lane in each direction.

E Street is an east-west roadway that provides access to the project site from Coloma Way. Within the study area, E Street provides one travel lane in each direction and serves residences west of the project site.

F Street is an east-west, two-lane roadway that extends from 41st Street to Elvas Avenue. The main access points to the project site are off F Street.

H Street is an east-west collector that connects the Downtown Sacramento area to East Sacramento and California State University, Sacramento (CSUS). In the vicinity of the project, H Street is a two-lane roadway.

Coloma Way is a two-lane, north-south collector that extends from Elvas Avenue to J Street. This street is located to the west of the project site and serves as one of three main roadways to access the project site from H Street.

Elvas Avenue is a north-south roadway that runs from Folsom Boulevard to C Street and provides access to US 50 via 65th Street. It is generally a two-lane collector in the vicinity of the hospital campus.

50th Street is a north-south local street that provides access to the site from H Street. There is one travel lane in each direction on 50th Street, with parking and sidewalks on both sides of the street. 50th Street is located south of the project site.

51st Street is a north-south roadway that extends from 2nd Avenue to F Street. Within the study area, 51st Street provides one travel lane in each direction.

52nd Street is a two-lane, north-south roadway. In the study area, it extends from H Street to F Street.

53rd Street is a two-lane, north-south roadway that extends from K Street to F Street. 53rd Street provides one travel lane in each direction.

EXISTING ON-STREET PARKING

Most of the neighborhood streets surrounding the project site provide on-street parking. The on-street parking surrounding the site is generally restricted on weekdays to no parking, one hour, or two hours unless the vehicle has a resident parking permit. Exhibit 5.8-4 shows the location and restrictions of the parking in the project vicinity. Hospital-related traffic does travel on the neighborhood streets including on streets north of the project site. Although there is no direct access to the hospital from the north, often visitors to the hospital are lost or looking for parking.

EXISTING TRANSIT FACILITIES

The Sacramento Regional Transit District (RT) provides one fixed service bus route to the project area. Route 34 operates between CSUS and downtown Sacramento connecting to multiple light rail stations and the Sacramento Valley Station, providing access to Amtrak rail service. In the study area, the route travels on F Street, Coloma Way, Pala Way, D Street, and 51st Street. The route operates on 60-minute headways on weekdays with no service provided on Saturdays, Sundays, or holidays. The route has stops in the study area on F Street, Coloma Way, Pala Way, and 51st Street, as illustrated in Exhibit 5.8-5.

Source: Received from Kittelson & Associates, Inc. in 2013

X12010083 01 022

Exhibit 5.8-4 **Existing On-Street Parking**

Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-5 **Existing Transit Facilities**

Additionally, south of the study area, RT's light rail Gold Line operates just north of US 50 between downtown Sacramento and the City of Folsom, providing four station stops in East Sacramento. The nearest light rail station is the 48th Street station located approximately 1.25 mile from the southern edge of the proposed project.

EXISTING BICYCLE FACILITIES

Bicycle lanes are located along Elvas Avenue and H Street in the site vicinity. Field observations within the project vicinity revealed low levels of bicycle activity along the study area roadways during most hours of the day.

The Sacramento City/County Bikeway Master Plan adopted by the City of Sacramento in 1995 and subsequent map updates identify existing and planned bikeway facilities in the study area. Bicycle facilities are defined as follows:

- Class I – bicycle paths in a completely separated right-of-way for the exclusive use of bicyclists and pedestrians
- Class II – bicycle lanes striped on a street or highway
- Class III – bicycle routes are on-street shared facilities

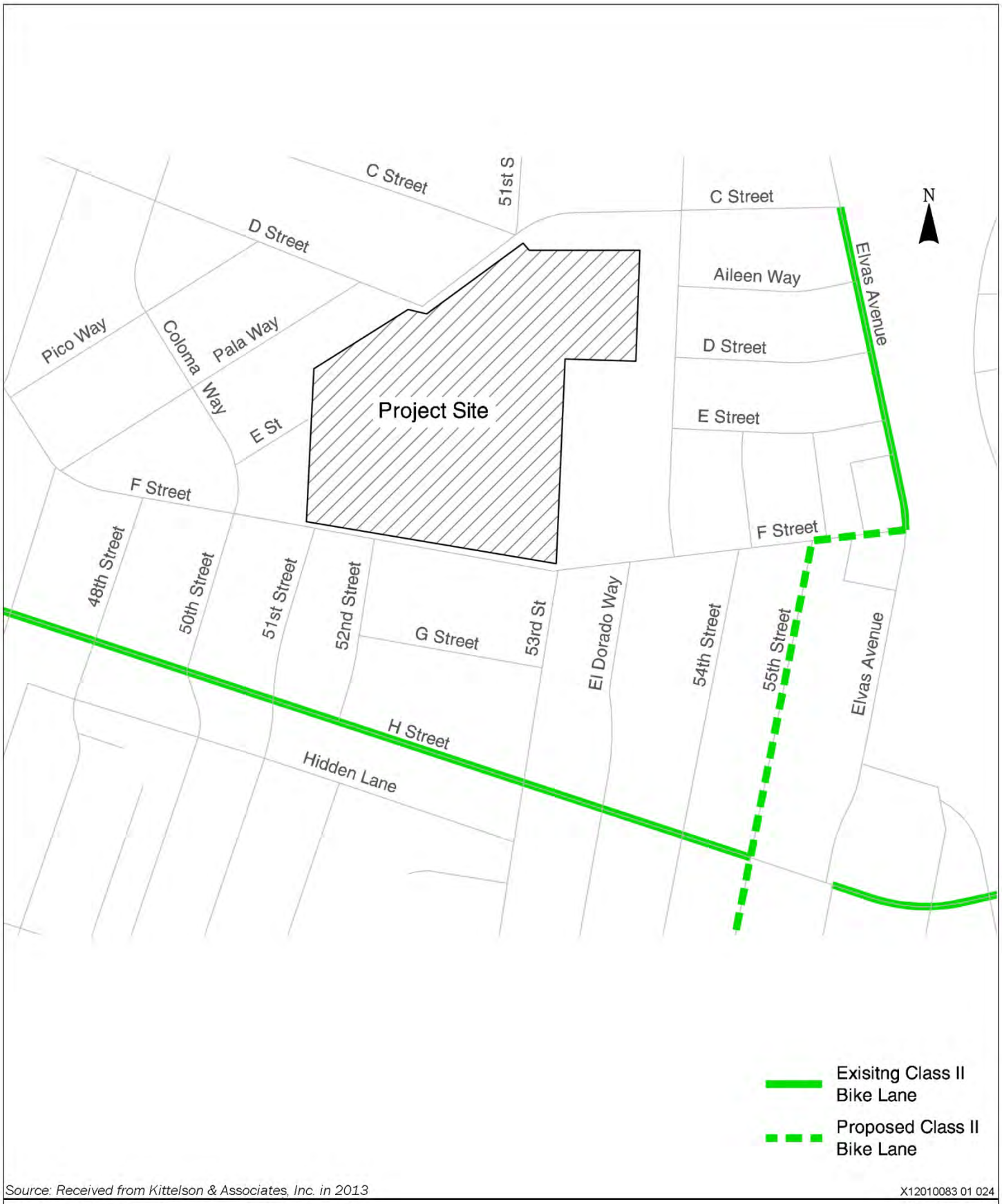
Exhibit 5.8-6 illustrates existing and proposed bikeways. The study area has no Class I facilities. Class II bicycle lanes exist on H Street and Elvas Avenue north of F Street. Per the 2010 City of Sacramento Bikeway Master Plan, new Class II bicycle lanes are proposed on 55th Street between F Street and south of the study area. The new Class II bicycle lanes on F Street will connect the proposed facility on 55th Street and existing facility along Elvas Avenue.

EXISTING PEDESTRIAN FACILITIES

In general, sidewalks measuring 3 to 5 feet in width are present along all of the study area roadways. There is one segment of detached sidewalk on H Street between 56th Street and 55th Street. Most of these locations have trees along the sidewalks, which are commonly considered attributes of a pedestrian-friendly environment. The rest of the study area roadways have attached sidewalks coincident to the curb. Exhibit 5.8-7 identifies key pedestrian features, including the location of crosswalks on study roadways near the project site.

METHODOLOGY

Field reconnaissance was undertaken to ascertain the traffic control characteristics of each of the study area intersections and roadway segments. In an urban setting, roadway capacity is generally governed by intersection characteristics, and intersection delay is used to determine levels of service (LOS). The methodology outlined in the Transportation Research Board's Highway Capacity Manual was used to analyze intersection LOS. Level of service is a qualitative indication of the level of delay and congestion experienced by motorists using an intersection. Level of service is designated by the letters A through F, with A being the best condition and F being the worst (high delay and congestion).



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-6 **Existing and Proposed Bicycle Facilities**

Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-7 **Existing Pedestrian Facilities**

SIGNALIZED INTERSECTIONS ANALYSIS

Signalized intersection analyses were studied using the operational methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 16). This procedure calculates an average stopped delay per vehicle at a signalized intersection, and assigns a level of service designation based upon the delay. SYNCHRO 8.0 software package was used to perform level of service analysis.

UNSIGNALIZED INTERSECTIONS ANALYSIS

Stop sign controlled intersections were analyzed using the methodology outlined in the *Highway Capacity Manual* (Transportation Research Board, Washington, D.C., 2000, Chapters 10 and 17). This methodology determines the Level of Service by calculating an average total delay per vehicle for each controlled movement and for the intersection as a whole. A LOS designation is assigned based on the average control delay of all movements. SYNCHRO 8.0 software package was used to perform level of service analysis.

STREET SEGMENT ANALYSIS

Selected street segments were evaluated by comparing daily traffic volumes to the level of service criteria set forth in City of Sacramento 2030 General Plan (Master EIR, Table 6.12-2).

Table 5.8-1 presents the relationship of total delay to level of service for both signalized and unsignalized intersections. Table 5.8-2 shows level of service criteria for roadways.

Table 5.8-1 Intersection Level of Service Criteria

LOS	Average Delay (sec/veh)		Description
	Signalized	Unsignalized	
A	≤ 10.0	≤ 10.0	Very Low Delay: This occurs when progression is extremely favorable and most vehicles arrive during a green phase. Most vehicles do not stop at all.
B	>10.0 & ≤20.0	>10.0 & ≤15.0	Minimal Delays: This generally occurs with good progression, short cycle lengths, or both. More vehicles stop than at LOS A, causing higher levels of average delay.
C	>20.0 & ≤35.0	>15.0 & ≤25.0	Acceptable Delay: Delay increases due to only fair progression, longer cycle lengths, or both. Individual cycle failures (*to service all waiting vehicles*) may begin to appear at this level of service. The number of vehicles stopping is significant, though many still pass through the intersection without stopping.
D	>35.0 & ≤55.0	>25.0 & ≤35.0	Approaching Unstable/Tolerable Delays: The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.

Table 5.8-1 Intersection Level of Service Criteria

LOS	Average Delay (sec/veh)		Description
	Signalized	Unsignalized	
E	>55.0 & ≤80.0	>35.0 & ≤50.0	Unstable Operation/Significant Delays: These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios. Individual cycle failures are frequent occurrences.
F	>80.0	>50.0	Excessive Delays: This level, considered to be unacceptable to most drivers, often occurs with oversaturation (i.e., when arrival flow rates exceed the capacity of the intersection). It may also occur at high v/c ratios below 1.00 with many individual cycle failures. Poor progression and long cycle lengths may also be major contributing causes to such delay levels.

Source: *Highway Capacity Manual,* Transportation Research Board, Washington D.C, 2010

Table 5.8-2 Roadway Segment Level of Service Criteria

Operational Class	Number of Lanes	ADT Level of Service Capacity Threshold				
		A	B	C	D	E
Arterial, low access control	2	9,000	10,500	12,000	13,500	15,000
	4	18,000	21,000	24,000	27,000	30,000
	6	27,000	31,500	36,000	40,500	45,000
Arterial, moderate access control	2	10,800	12,600	14,400	16,200	18,000
	4	21,600	25,200	28,800	32,400	36,000
	6	32,000	37,800	43,200	48,600	54,000
Arterial, high access control	2	12,000	14,000	16,000	18,000	20,000
	4	24,000	28,000	32,000	36,000	40,000
	6	36,000	43,000	48,000	54,000	60,000
Collector, minor	2	5,250	6,125	7,000	7,875	8,750
Collector, major	2	8,400	9,800	11,200	12,600	14,000
	4	16,800	19,600	22,400	25,200	28,000
Local	2	3,000	3,500	4,000	4,500	5,000

Source: City of Sacramento 2030 General Plan Master EIR, Table 6.12-2

PEAK HOUR SIGNAL WARRANT

Unsignalized intersections shown to trigger the peak hour (Warrant 3) MUTCD signal warrant are considered in this analysis. Where the peak hour traffic signal warrant is expected to be satisfied, consideration may be given to installing a traffic signal. However, the decision to install a traffic signal should not be based solely upon a single warrant. Other traffic signal warrants may justify the potential need for a traffic signal. Even if an intersection satisfies one or more warrants for installation of a traffic

signal, consideration should be given to other modifications to improve traffic operations before installing a traffic signal.

Delay, congestion, driver confusion, future land use or other evidence for right of way assignment beyond that provided by stop controls must be demonstrated. Traffic signals tend to reduce the potential for right-angle type collisions but also tend to increase the potential for less severe rear-end collisions. Signal warrant peak hour volumes represent the threshold point at which the potential for more rear-end collisions is offset by the potential for fewer more severe right-angle collisions.

Traffic Data Collection

Turning movement volumes were collected at thirteen of the fourteen study intersections (including existing hospital accesses) on Tuesday, November 6, 2012, during the morning (7:00 AM to 9:00 AM) and afternoon (4:00 PM to 6:00 PM) peak periods. The City provided turning movement volumes at 53rd Street and H Street from October 25, 2011. The results indicated that the morning (AM) peak hour started around 7:20 AM while the afternoon (PM) peak hour commenced around 5:00 PM. Daily traffic volumes were collected along the study intersections on Wednesday, May 25, 2011. Traffic turning movement and 24-hour daily counts are contained in Appendix G, Part 1.

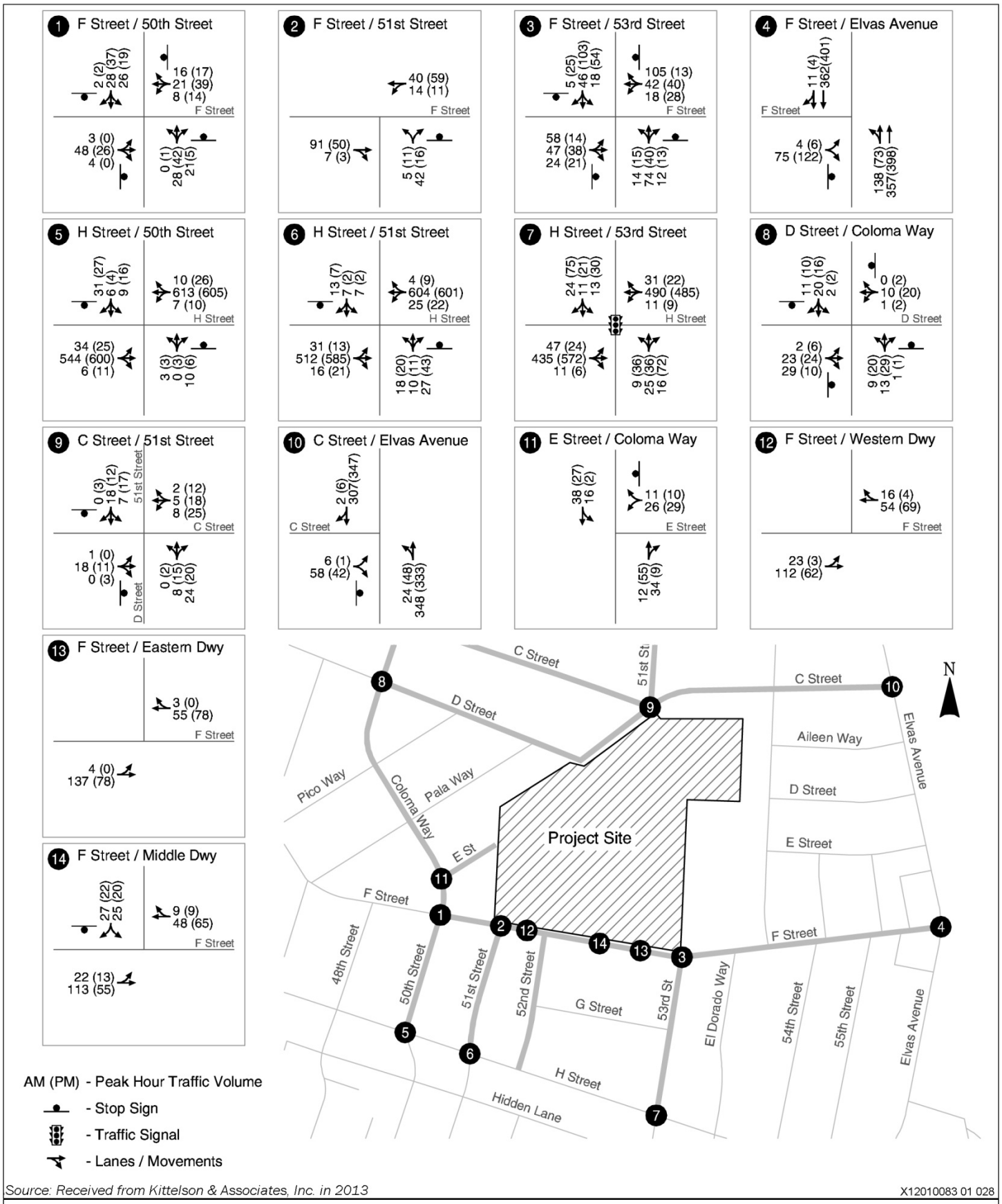
Existing Intersection Operations

The AM and PM peak hour turning movements with lane geometrics and traffic control at each study intersection are shown in Exhibit 5.8-8. Using the peak hour volumes, existing lane geometries, and signal timing data obtained from the City, the existing levels of service were estimated at the study intersections. Table 5.8-3 presents the level of service results for the study intersections at the existing volume levels. The analysis showed that all intersections operate within acceptable standards (LOS D or better). As shown in Table 5.8-4, none of the unsignalized intersections meet the peak hour traffic signal warrant.

Levels of Service analyses worksheets for the existing conditions are provided in AppendixH, Part 2. The signal warrant analysis worksheets are provided in Appendix G, Part 9.

Existing Roadway Segment Operations

Exhibit 5.8-9 presents the daily volumes on the study roadway segments. Using the average daily trip volumes, number of lanes, and street classification, the existing levels of service were estimated for the study segments. Table 5.8-5 presents the level of service results for the study roadway segments at the existing volume levels. The analysis shows that all segments operate within acceptable standards.



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-8 **Existing Conditions: Intersection Peak Hour Traffic Volumes**

Table 5.8-3 Intersection Level of Service – Existing Conditions

#	Intersection	Control	Peak Hour	Level of Service	Average Delay [1]
1	50th St & F St	AWSC	AM	A	7.4
			PM	A	7.4
2	51st St & F St	SSSC	AM	A (A)	2.7 (9.0)
			PM	A (A)	2.2 (9.0)
3	53rd St & F St	AWSC	AM	A	8.2
			PM	A	8.2
4	Elvas Ave & F St	SSSC	AM	A (B)	2.3 (10.5)
			PM	A (B)	2.1 (10.9)
5	50th St & H St	SSSC	AM	A (C)	1.5 (20.8)
			PM	A (D)	1.6 (25.9)
6	51st St & H St	SSSC	AM	A (D)	2.4 (27.6)
			PM	A (D)	2.1 (27.1)
7	53rd St & H St	Signal	AM	A	4.1
			PM	A	6.7
8	Coloma Way & D St	AWSC	AM	A	7
			PM	A	7.3
9	51st St & C St	SSSC	AM	A (A)	2.6 (4.8)
			PM	A (A)	1.9 (5.1)
10	Elvas Ave & C St	SSSC	AM	A (B)	1.3 (10.9)
			PM	A (B)	1.3 (10.9)
11	Coloma Way/50th St & E St	SSSC	AM	A (A)	3.3 (9.1)
			PM	A (A)	2.8 (9.0)
12	F St & Western Hospital Dwy	SSSC	AM	A (A)	0.9 (1.4)
			PM	A (A)	0.2 (0.4)
13	F St & Eastern Hospital Dwy	SSSC	AM	A (A)	0.2 (0.2)
			PM	A (A)	0.0 (0.0)
14	F St & Middle Hospital Dwy	SSSC	AM	A (A)	2.7 (9.5)
			PM	A (A)	2.6 (9.2)

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control
[1] For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for the worst movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Table 5.8-4 Signal Warrant Analysis – Existing Conditions

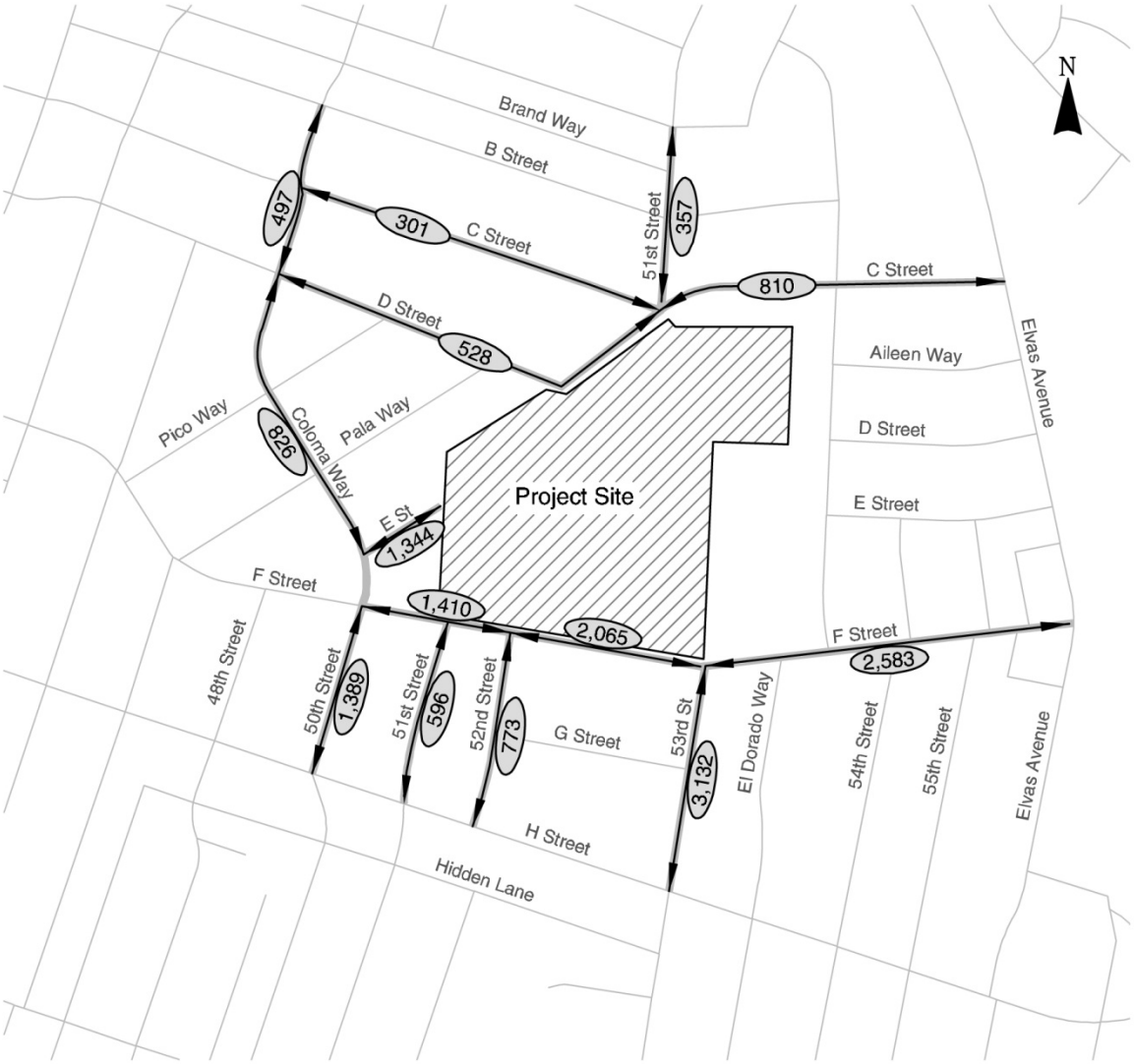
#	Intersection	Control	Peak Hour Warrant Met?	
			AM Peak	PM Peak
1	50th St & F St	AWSC	No	No
2	51st St & F St	SSSC	No	No
3	53rd St & F St	AWSC	No	No
4	Elvas Ave & F St	SSSC	No	No
5	50th St & H St	SSSC	No	No
6	51st St & H St	SSSC	No	No
8	Coloma Way & D St	AWSC	No	No
9	51st St & C St	SSSC	No	No
10	Elvas Ave & C St	SSSC	No	No
11	Coloma Way/50th St & E St	SSSC	No	No
12	F Street & Western Hospital Dwy	SSSC	No	No
13	F Street & Eastern Hospital Dwy	SSSC	No	No
14	F Street & Middle Hospital Dwy	SSSC	No	No

Notes: AWSC = All-Way Stop Control, SSSC = Side Street Stop Control
Source: Kittelson & Associates, 2013

Table 5.8-5 Roadway Segment Level of Service – Existing Conditions

Roadway	Segment	Classification	Lanes	Average Daily Traffic	V/C Ratio	LOS
50th Street	F Street to H Street	Local	2	1,389	0.28	A
51st Street	F Street to H Street	Local	2	596	0.12	A
52nd Street	F Street to H Street	Local	2	773	0.15	A
53rd Street	F Street to H Street	Local	2	3,132	0.63	B
F Street	50th Street to 52nd Street	Local	2	1,410	0.28	A
F Street	52nd Street to 53rd Street	Local	2	2,065	0.41	A
F Street	53rd Street to Elvas Avenue	Local	2	2,583	0.52	A
Coloma Way	North of E Street	Collector	2	826	0.09	A
Coloma Way	D Street to B Street	Collector	2	497	0.06	A
D Street	51st to Coloma Way	Local	2	528	0.11	A
C Street	51st to Coloma Way	Local	2	301	0.06	A
51st Street	C Street to Brand Way	Local	2	357	0.07	A
C Street	51st Street to Elvas Avenue	Local	2	810	0.16	A
E Street	East of Coloma Way	Local	2	1,344	0.27	A

Source: Kittelson & Associates 2013



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-9 **Existing Conditions: Roadway Segment Daily Traffic Volumes**

5.8.3 REGULATORY SETTING

This section describes the regulatory settings and policies pertaining to transportation that may be relevant to the project.

FEDERAL AND STATE

No pertinent federal or State regulations related to transportation are applicable to the proposed project.

LOCAL

CITY OF SACRAMENTO 2030 GENERAL PLAN

The *Mobility Element of the City of Sacramento's 2030 General Plan* (2009) outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following level of service policy is relevant to the proposed project:

- **Policy M 1.2.2 LOS Standard.** The City shall allow for flexible Level of Service (LOS) standards, which will permit increased densities and mix of uses to increase transit ridership, biking, and walking, which decreases auto travel, thereby reducing air pollution, energy consumption, and greenhouse gas emissions.

  Base Level of Service Standard – The City shall seek to maintain the following standards for all areas outside of multi-modal districts:

  - Maintain operations on all roadways and intersections at LOS A-D at all times, including peak travel times, unless maintaining this LOS would, in the City's judgment, be infeasible and/or conflict with the achievement of other goals. LOS E or F conditions may be accepted, provided that provisions are made to improve the overall system and/or promote non-vehicular transportation as part of a development project or City-initiated project.

The *Mobility Element of the City of Sacramento's 2030 General Plan* also includes the following policies related to connectivity, walking, biking, transit, and parking that are relevant to the proposed project:

- **Policy M 1.3.1 Grid Network.** The City shall require all new residential, commercial, or mixed-use development that proposes or is required to construct or extend streets to develop a transportation network that provides for a well-connected, walkable community, preferably in a grid or modified grid.
- **Policy M 2.1.1 Pedestrian Master Plan.** All new developments shall be consistent with the applicable provisions of the Pedestrian Master Plan.
- **Policy M 2.1.5 Continuous Network.** The City shall provide a continuous pedestrian network in existing and new neighborhoods that facilitates convenient pedestrian travel free of major impediments and obstacles.

- **Policy M 4.3.1 Neighborhood Traffic Management.** The City shall continue wherever possible to design streets and improve development applications in such a manner as to reduce high traffic flows and parking problems within residential neighborhoods.
- **Policy M 5.1.1 Bikeway Master Plan.** All proposed bikeway facilities shall be consistent with the applicable provisions of the Bikeway Master Plan.
- **Policy M 5.1.2 Appropriate Bikeway Facilities.** All proposed bikeway facilities are appropriate to the street classifications and types, traffic volume, and speed on applicable rights-of-way.
- **Policy M 5.1.4 Motorists, Bicyclists, and Pedestrian Conflicts.** The proposed project shall not result in conflicts between bicyclists and motor vehicles on streets, and bicyclists and pedestrians on multi-use trails and sidewalks.

City of Sacramento Pedestrian Master Plan

The City of Sacramento Pedestrian Master Plan (2006) provides a comprehensive vision for improving pedestrian conditions. The purpose is to make Sacramento a model pedestrian-friendly city – the "Walking Capital." The goals of the plan fall into the following three categories:

- Create a walkable pedestrian environment throughout the city;
- Improve awareness of the pedestrian mode through education; and
- Increase pedestrian safety.

Neighborhood Traffic Management Program

The City of Sacramento has a Neighborhood Traffic Management Program (NTMP) whereby neighborhoods can petition the City to install traffic calming devices to address residents' concerns about traffic. There are two phases of an NTMP—Phase I involves less restrictive modifications such as the installation of high visibility speed limit signs, striping of bike lanes, and the installation of speed humps. Phase II involves more restrictive measures including half- and full-street closures, diverters, and one-way/two-way street conversions. Phase II modifications are implemented if the Phase I modifications do not adequately address neighborhood concerns.

There are two NTMP areas located near the Sutter Park Neighborhood project site. The Coloma Terrace neighborhood (located within the area of C Street to the north, H Street to the south, Elvas Way/ 56th Street to the east and 45th Street to the west) and the Mercy Hospital neighborhood (located within an area bounded by 36th Street to the west, 45th Street to the east and concentrated on H and J Streets). Some of the implemented improvements in the Coloma Terrace neighborhood include: speed humps and lumps, speed limits signs, neighborhood signs, parking removal, cross walks and speed limit legends. Mercy Hospital neighborhood NTMP include pedestrian crossing signs with pedestrian activated flashing light emitting diode (LED), a solar powered radar speed feedback sign and an advanced pedestrian warning at the intersection of 42nd Street/ Mission Way and H Street.

5.8.4 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

The potential transportation-related impacts of the project are based on applicable significance criteria. Mitigation measures necessary to reduce the significant impacts are also identified. The impact analysis was performed for the Existing Plus Project conditions at full buildout and was compared to the project baseline (existing conditions with the hospital in operation (see Chapter 5, Introduction to the Analysis).

STANDARDS OF SIGNIFICANCE

In accordance with CEQA, the effects of a project are evaluated to determine if they would result in a significant adverse impact on the environment. For the purposes of this analysis, an impact is considered significant if the proposed project would have the effects described below. The standards of significance in this analysis are based on the current practice of the City of Sacramento which reflects the adopted LOS policies of the 2030 General Plan.

INTERSECTIONS

A significant traffic impact occurs when:

- the traffic generated by the project degrades peak period LOS from LOS D or better (without the project) LOS E or F(with the project), or
- the LOS (without project) is unacceptable (LOS E or F) and project-generated traffic increases the peak period average vehicle delay by five (5) seconds or more.

General Plan Mobility Element Policy M 1.2.2 sets the definitions for what is considered an acceptable level of service. The Base Level of Service Standard (LOS D) is used for the purpose of the project traffic impact analysis.

Consistent with City of Sacramento Traffic Impact Analysis Guidelines, for side-street stop-controlled intersections, the above criteria are applied for the overall intersection (and not the minor street movement with greatest delay).

ROADWAY SEGMENTS

Impacts to roadway segments are considered significant when:

- the traffic generated by the project degrades peak period LOS D or better (without the project) to E, or F (with the project); or,
- the LOS (without project) is E, or F and project generated traffic increases the volume/capacity ratio by 0.02 or more.

TRANSIT

Impacts to transit system are considered significant if the project would:

- adversely affect public transit operations, or
- fail to adequately provide access to transit.

BICYCLE FACILITIES

Impacts to bicycle facilities are considered significant if the project would:

- adversely affect existing or planned bicycle facilities, or
- fail to adequately provide for access by bicycle.

PEDESTRIAN CIRCULATION

Impacts to pedestrian circulation are considered significant if the project would:

- adversely affect existing or planned pedestrian facilities, or
- fail to adequately provide for access by pedestrians.

CONSTRUCTION-RELATED TRAFFIC IMPACTS

The project would have a temporarily significant impact during construction if it would:

- degrade an intersection or roadway to an unacceptable level;
- cause inconveniences to motorists due to prolonged road closures; or
- result in increased frequency of potential conflicts between vehicles, pedestrians, and bicyclists.

PROJECT TRAFFIC

This section describes the analysis techniques, assumptions, and results used to identify the significant impacts of the proposed project on the transportation system. This section first describes the anticipated travel characteristics of the proposed project. It then represents the expected conditions of the transporation system with the addition of the project. As described under project description, the Project entails the demolition of the Sutter Memorial Hospital facility and construction of 125 single-family housing units and 5,000 square feet of retail space.

The proposed project vehicular access is provided along extensions of three existing roadways (51st Street, 53rd Street, and C Street) and along two new roadways (one extending southeast from 51st Street on the northern edge of the project area and one extending from F Street between 52nd and 53rd Streets). Two access scenarios were evaluated for the project:

- Proposed Project
- No 53rd Street Extension

TRIP GENERATION

Based on the land use information provided by the City and existing traffic counts, trips for both the existing hospital and the proposed development were estimated.

Based on the peak hour and 24-hour traffic counts conducted by Kittelson & Associates (November 2012) and Fehr & Peers (*Sutter Memorial Existing Conditions Transportation & Traffic,* June 2011) at all of the entrances and exits to Sutter Memorial Hospital, the trip generation was estimated for the existing hospital. Given the hospital driveway's shared access with the F Street/53rd Street medical office building and E Street single-family houses, daily and peak hour vehicular trips associated with these two areas were discounted from the raw driveway counts. As such, the hospital generates 6,270 daily, 448 AM peak, and 346 PM peak trips.

Table 5.8-6, shows the gross trip generation for the proposed project based on trips rates published in the Institute of Transportation Engineers (ITE) Trip Generation Manual (9th Edition). To capture internal trips between the proposed retail land use and residential units, the methodology provided in the ITE Trip Generation Manual was applied. According to Table 5.8-6, the proposed project would generate 2,065, daily trips with 122 AM peak trips and 191 PM peak trips, respectively.

Comparing the proposed project with the existing land uses on the project site, the proposed project would generate fewer trips than the existing hospital and the net trips would be reduced by 4,025 daily, 326 during the AM peak and 154 during the PM peak hour.

The trip generation memo containing more details and computations is provided in Appendix G, Part 3.

Table 5.8-6 Project Trip Generation

Land Use	ITE Code	Size (DU or SF)	Daily Trips	Weekday AM Peak Hour			Weekday PM Peak Hour		
				Total	In	Out	Total	In	Out
Existing Sutter Hospital									
Hospital Trips	Dwy Counts+		6,270	522	364	158	370	107	263
E Street SFDU Reduction [1]	210	6	--	-14	-3	-11	-8	-5	-3
F&53rd Medical Office Building Reduction	Dwy Counts++		--	-60	-58	-2	-16	-4	-12
Net Trips for Existing Sutter Hospital			*6,270*	*448*	*303*	*145*	*346*	*98*	*248*
Proposed Sutter Park Development									
Single-Family Detached Housing [1]	210	125	1,290	97	24	73	128	81	48
Shopping Center [1]	820	5,000	969	25	15	10	81	39	42
Internal Trips Reduction [1]			*-194*	*0*	*0*	*0*	*-18*	*-9*	*-9*
Net New Trips for Proposed Development			2,065	122	40	82	191	111	81
Net Trip Difference between Proposed Development and Existing Hospital			*-4,205*	*-326*	*-263*	*-63*	*-154*	*13*	*-167*

Notes: + Sum of driveway traffic counts. E Street and F&53rd Medical Office building reductions were accounted for daily trips
++ Sum of driveway traffic counts for AM and PM peak hours.
[1] Based on the ITE Trip Generation Manual, 9th Edition
Negative trips indicate reduction in traffic volumes

TRIP DISTRIBUTION AND ASSIGNMENT

The expected distribution of vehicular trips associated with the Sutter Park Neighborhood Project through the study area was derived from the SACMET travel demand model, layout of the proposed site, and the proposed access locations. The land use for the traffic model zone within which the project is located was altered to eliminate the hospital land use and to add the proposed project land use. From this selected zone assignment, the distribution of inbound and outbound trips was estimated. The proposed project trip distribution is shown in Exhibit 5.8-10. As shown in Exhibit 5.8-10, about 74 percent of project traffic would travel to/from the east and west via H and F Streets. About 20 percent of trips are expected to travel to/from the south along 50th, 51st, 52nd and 53rd Streets. Less than 10 percent of trips are expected to travel to/from the northern side of the project area. Exhibit 5.8-11 illustrates project-specific trips for the proposed project that would travel through the study intersections. The project-only trips assignment for the "No 53rd Street Extension" scenario is shown in Exhibit 5.8-12. Raw model plots for trip distribution/assignment are contained in Appendix G, Part 4.

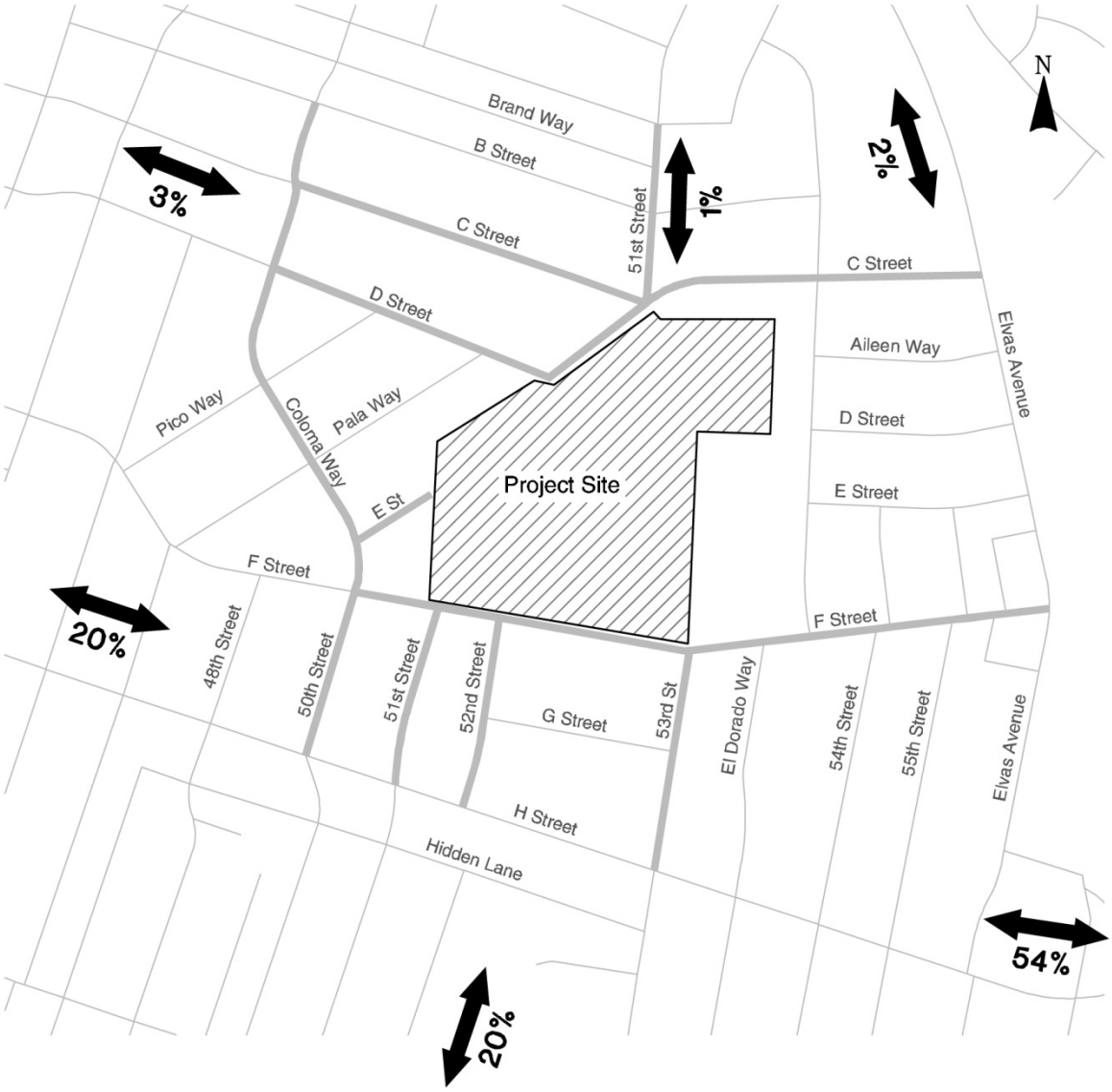
EXISTING PLUS PROJECT CONDITIONS

This scenario analyzes the impact of adding project traffic to the Existing Conditions scenario. The traffic analysis results for the Existing Plus Project conditions are compared with the Existing Conditions (with hospital) to determine the impacts.

TRAFFIC VOLUMES

The Existing Plus Project traffic conditions analysis allows a determination of how the study area's transportation system will operate with the traffic generated by the proposed Sutter Park Neighborhood project. The AM and PM project-generated trips (shown in Exhibit 5.8-11 and Exhibit 5.8-12) were added to the Existing conditions volumes (shown in Exhibit 5.8-8) to determine the total post-project traffic volumes. The hospital traffic volumes were discounted from the network because the hospital would be demolished and its uses transferred to the new Women's and Children's Hospital. The existing AM and PM peak plus project turning movement volumes for the proposed project are illustrated in Exhibit 5.8-13. Similarly, the daily volumes on study roadway segments for the proposed project are shown in Exhibit 5.8-14. The existing AM and PM peak turning movement volumes and daily volumes for the "No 53rd Street Extension" scenario are shown in Exhibit 5.8-15 and Exhibit 5.8-16 respectively.

The existing traffic patterns are not predicted to change significantly based on the SACMET model runs. However, some vehicles currently using 50th Street/Coloma Way, Lagomarsino Way and Elva Avenue between F Street and C Street/51st Street may alter their traffic patterns and divert to the new proposed project streets. Given amount of traffic the existing roadways serve and available capacity on the proposed new streets, the analysis shows that a slight and negligible change in traffic pattern is anticipated.



Source: Received from Kittelson & Associates, Inc. in 2013

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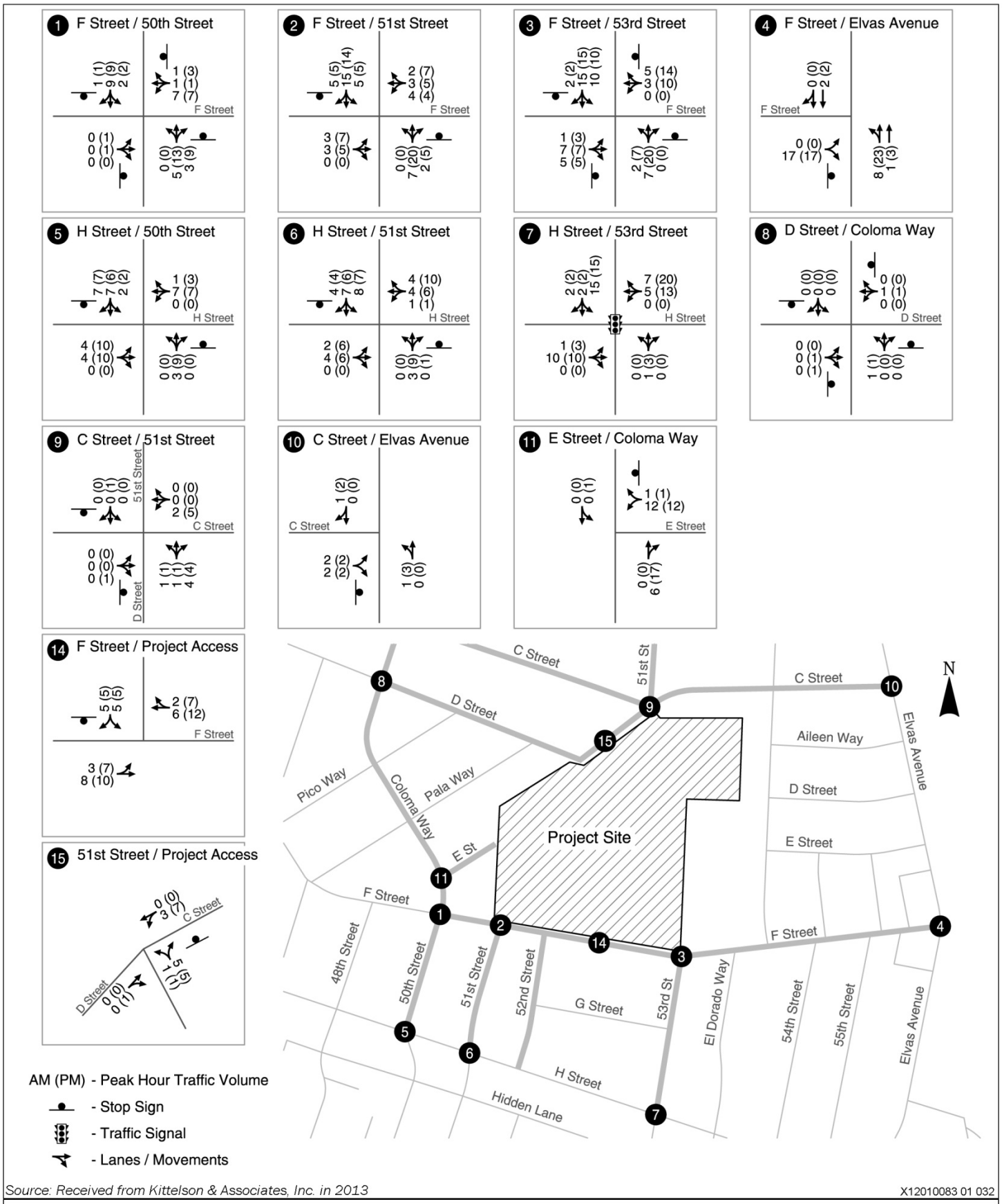
Exhibit 5.8-10 **Project Trip Distribution**



Source: Received from Kittelson & Associates, Inc. in 2013

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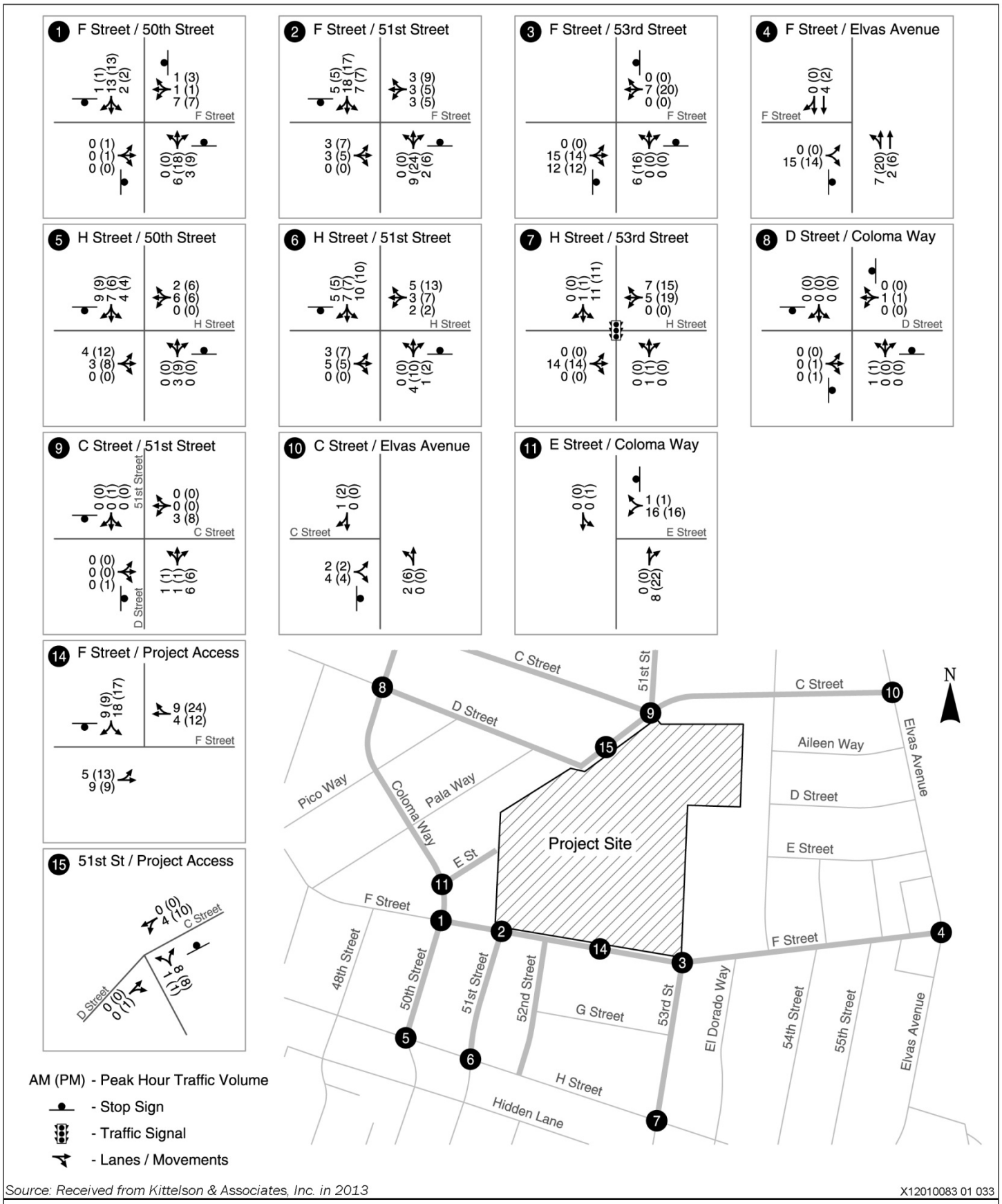
Exhibit 5.8-11 Project Intersection Peak Hour Traffic Volumes – Proposed Project Scenario



Source: Received from Kittelson & Associates, Inc. in 2013

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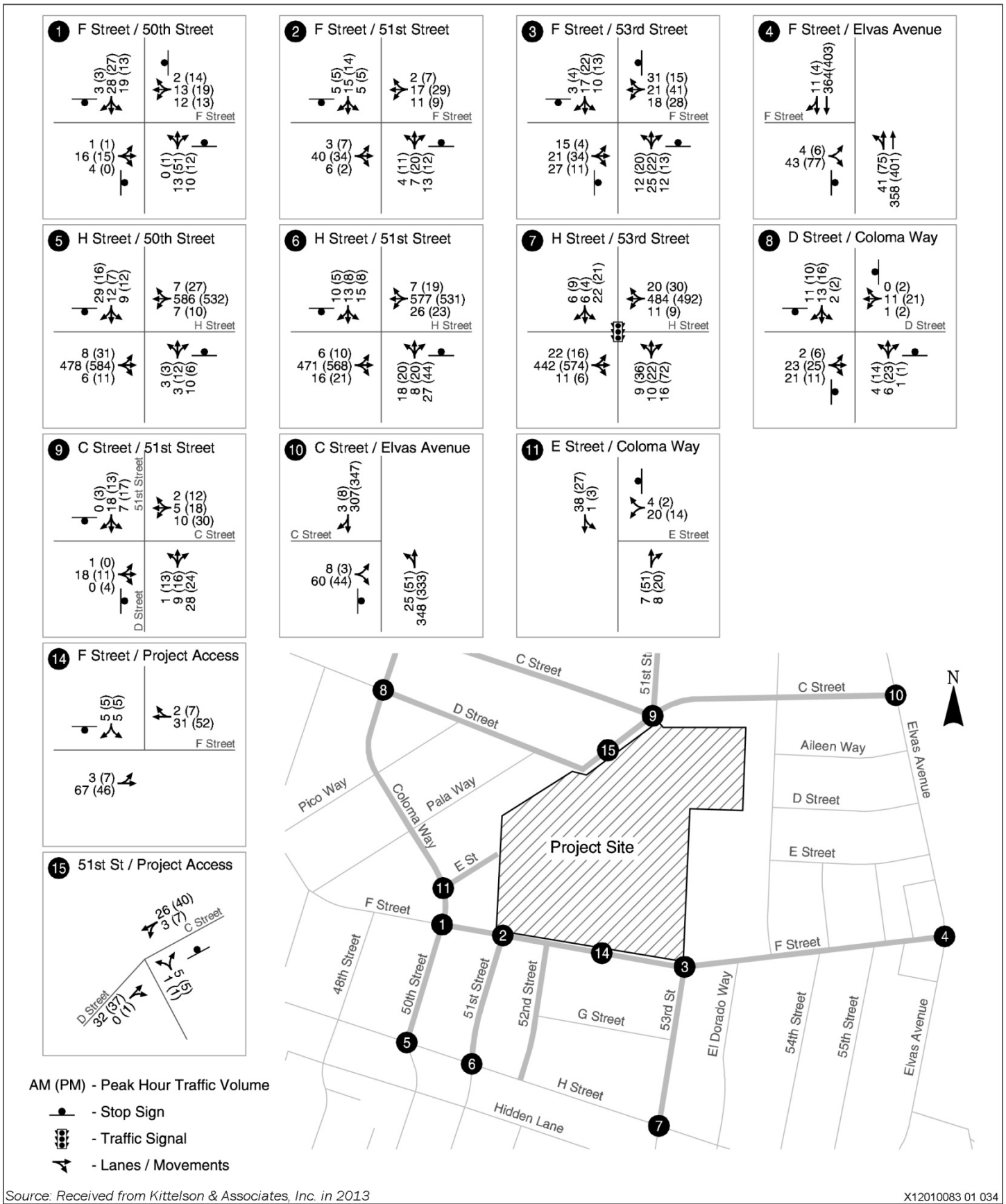
Exhibit 5.8-12

Project Intersection Peak Hour Traffic Volumes – No 53rd Street Extension Scenario



Source: Received from Kittelson & Associates, Inc. in 2013

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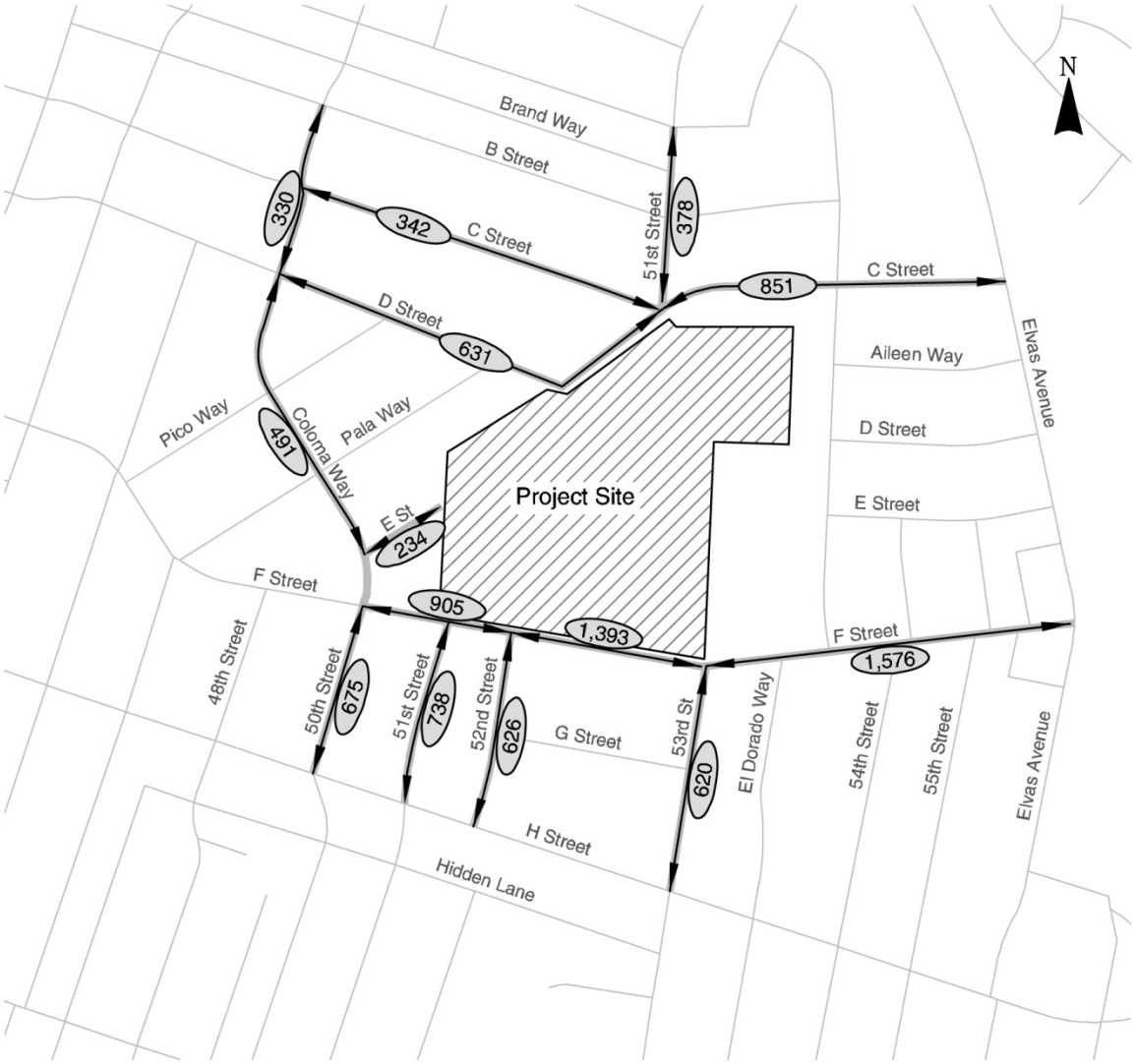
Exhibit 5.8-13 **Existing Plus Project Intersection Peak Hour Traffic Volumes – Proposed Project Scenario**



Source: Received from Kittelson & Associates, Inc. in 2013

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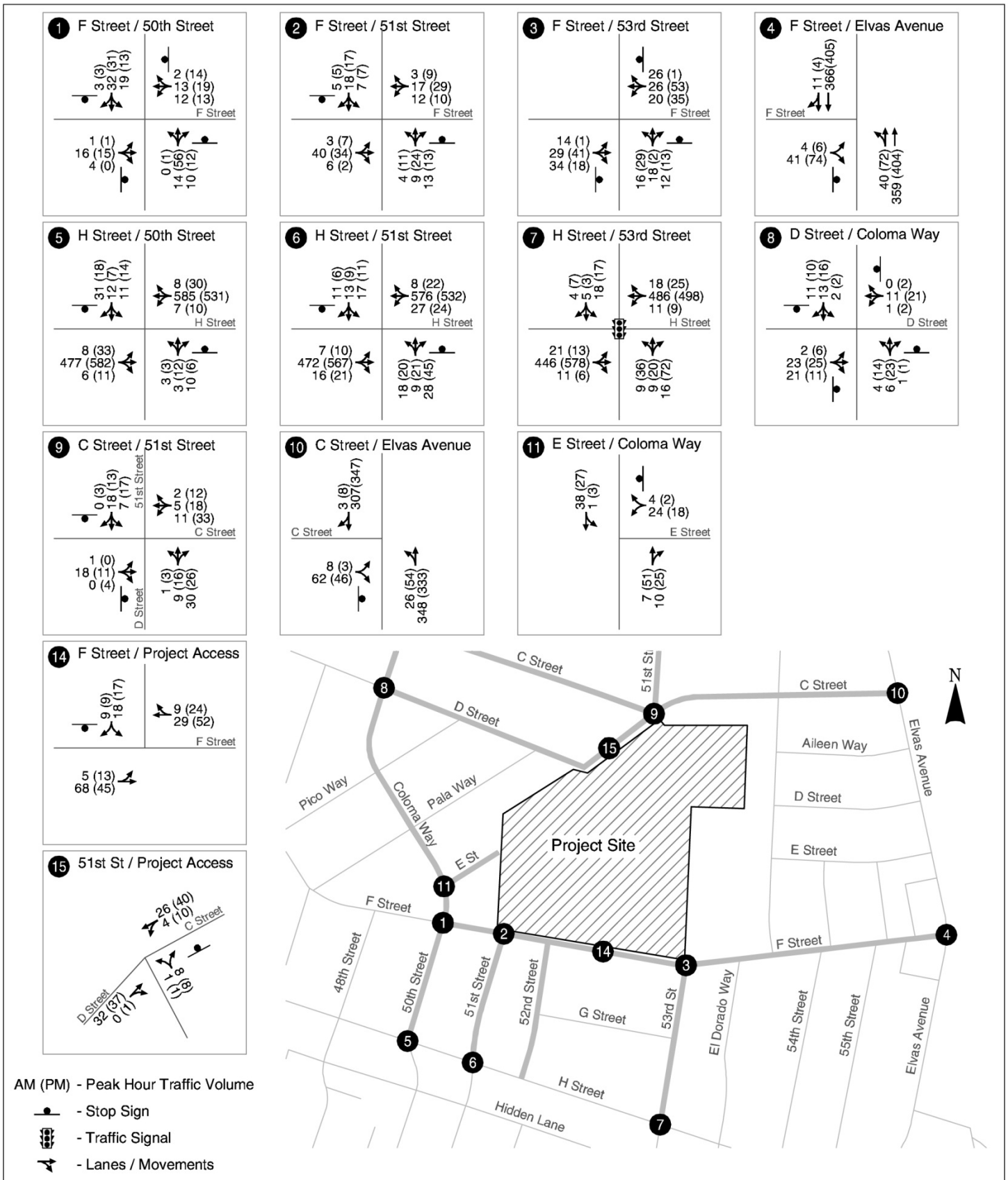
Exhibit 5.8-14 **Existing Plus Project Segment Daily Traffic Volumes – Proposed Project Scenario**



Source: Received from Kittelson & Associates, Inc. in 2013

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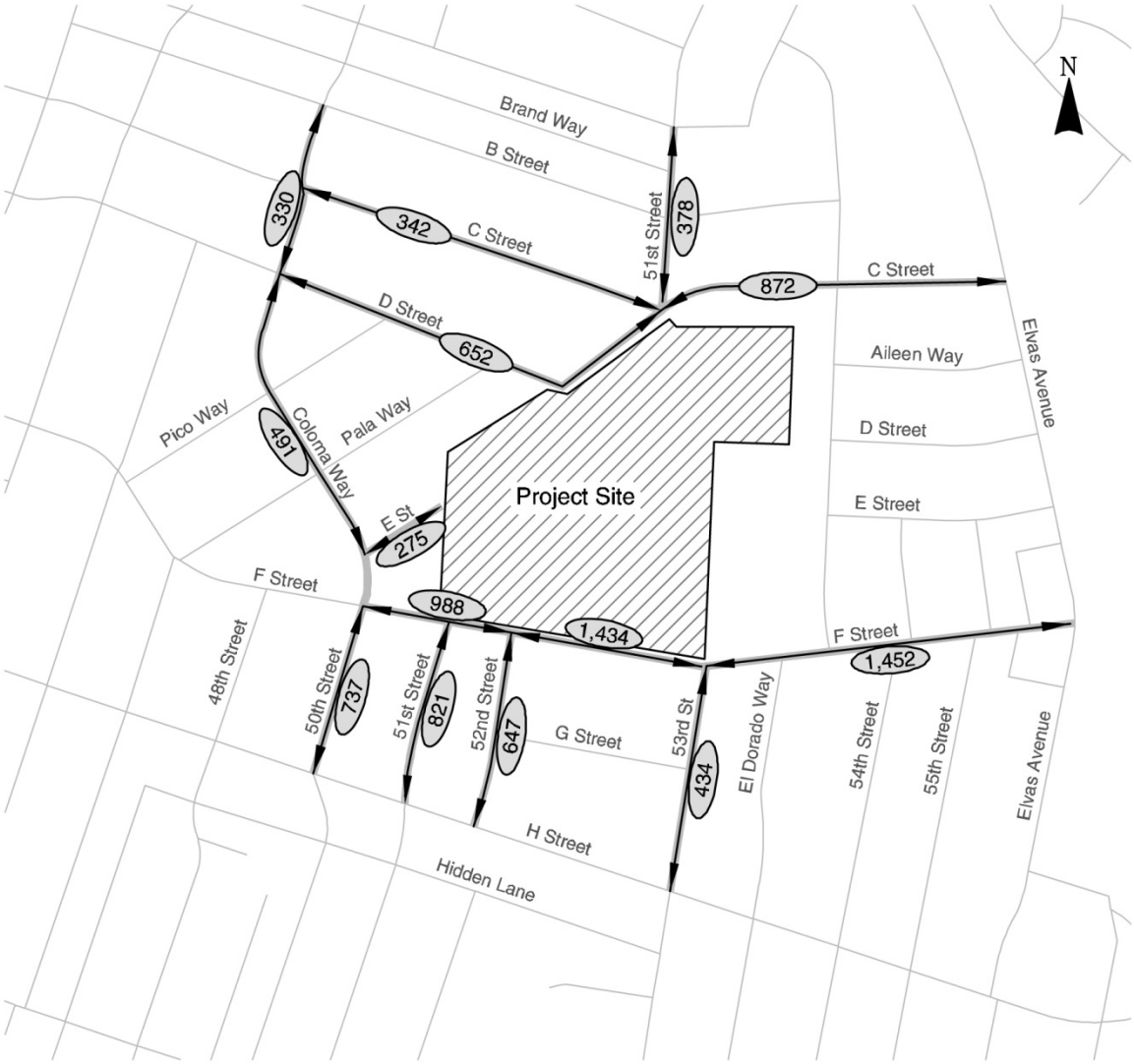
Exhibit 5.8-15 **Existing Plus Project Intersection Peak Hour Traffic Volumes – No 53rd Street Extension Scenario**



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-16

Existing Plus Project Daily Segment Volumes – No 53rd Street Extension Scenario

LEVEL OF SERVICE ANALYSIS RESULTS

Table 5.8-7 shows the Existing Plus Project operating conditions at the study intersections while Table 5.8-8 shows the signal warrant analysis results. Table 5.8-9 shows the operating conditions along the study roadway segments. All the street segments and intersections for both access scenarios are projected to operate within the City's level of service standards following the addition of project traffic to existing traffic conditions. The study intersections and roadway segments are projected to operate at the same LOS grades as the existing no project conditions. In addition, the study locations would operate at identical LOS grades for both access scenarios. A signal warrant analysis using MUTCD Warrant #3 found that none of the stop-controlled intersections met the conditions necessary to warrant a traffic signal for both access scenarios.

The LOS worksheets and signal warrant sheets are provided in Appendix G, Part 5 and Part 9 respectively.

Table 5.8-7 Intersection Levels of Service – Existing Plus Project

#	Intersection	Control	Peak Hour	Existing No Project		Scenario 1: Existing with Proposed Project		Scenario 2: Existing with No 53rd St Extension	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
1	50th St & F St	AWSC	AM	A	7.4	A	7.2	A	7.3
			PM	A	7.4	A	7.3	A	7.3
2	51st St & F St	SSSC	AM	A (A)	2.7 (9.0)	A (A)	4.3 (9.4)	A (A)	4.6 (9.5)
			PM	A (A)	2.2 (9.0)	A (A)	4.9 (9.6)	A (A)	5.2 (9.6)
3	53rd St & F St	AWSC	AM	A	8.2	A	7.3	A	7.3
			PM	A	8.2	A	7.5	A	7.7
4	Elvas Ave & F St	SSSC	AM	A (B)	2.3 (10.5)	A (B)	1.0 (10.2)	A (B)	1.0 (10.2)
			PM	A (B)	2.1 (10.9)	A (B)	1.7 (10.7)	A (B)	1.6 (10.7)
5	50th St & H St	SSSC	AM	A (C)	1.5 (20.8)	A (C)	1.3 (19.7)	A (C)	1.4 (20.1)
			PM	A (D)	1.6 (25.9)	A (D)	1.7 (26.0)	A (D)	1.8 (26.2)
6	51st St & H St	SSSC	AM	A (D)	2.4 (27.6)	A (D)	2.3 (26.4)	A (D)	2.4 (27.2)
			PM	A (D)	2.1 (27.1)	A (D)	2.7 (29.8)	A (D)	2.9 (31.9)
7	53rd St & H St	Signal	AM	A	4.1	A	3.6	A	3.4
			PM	A	6.7	A	5.5	A	5.4
8	Coloma Way & D St	AWSC	AM	A	7	A	7	A	7
			PM	A	7.3	A	7.3	A	7.3
9	51st St & C St	SSSC	AM	A (A)	2.6 (4.8)	A (A)	2.1 (4.9)	A (A)	4.0 (9.6)
			PM	A (A)	1.9 (5.1)	A (A)	1.5 (5.5)	A (A)	5.7 (9.5)
10	Elvas Ave & C St	SSSC	AM	A (B)	1.3 (10.9)	A (B)	1.4 (11.1)	A (B)	1.4 (11.1)
			PM	A (B)	1.3 (10.9)	A (B)	1.4 (11.2)	A (B)	1.4 (11.2)
11	Coloma Way/50th St & E St	SSSC	AM	A (A)	3.3 (9.1)	A (A)	2.8 (8.9)	A (A)	3.1 (8.9)
			PM	A (A)	2.8 (9.0)	A (A)	1.4 (9.0)	A (A)	1.6 (9.0)

Table 5.8-7 Intersection Levels of Service – Existing Plus Project

#	Intersection	Control	Peak Hour	Existing No Project		Scenario 1: Existing with Proposed Project		Scenario 2: Existing with No 53rd St Extension	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
12	F St & Western Hospital Dwy	SSSC	AM	A (A)	0.9 (1.4)	DNE	DNE	DNE	DNE
			PM	A (A)	0.2 (0.4)	DNE	DNE	DNE	DNE
13	F St & Eastern Hospital Dwy	SSSC	AM	A (A)	0.2 (0.2)	DNE	DNE	DNE	DNE
			PM	A (A)	0.0 (0.0)	DNE	DNE	DNE	DNE
14	F St & Project Access/ Middle Hospital Dwy	SSSC	AM	A (A)	2.7 (9.5)	A (A)	1.0 (8.9)	A (A)	2.1 (9.1)
			PM	A (A)	2.6 (9.2)	A (A)	1.2 (8.9)	A (A)	2.1 (9.2)
15	53rd St & 51st St/D St	SSSC	AM	DNE	DNE	A (A)	1.1 (8.5)	A (A)	1.5 (8.5)
			PM	DNE	DNE	A (A)	1.1 (8.6)	A (A)	1.6 (8.6)

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control, DNE - Does Not Exist
[1] For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for worse movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Table 5.8-8 Signal Warrant Analysis – Existing Plus Project

#	Intersection	Control	Peak Hour Warrant Met?	
			AM Peak	PM Peak
1	50th St & F St	AWSC	No	No
2	51st St & F St	SSSC	No	No
3	53rd St & F St	AWSC	No	No
4	Elvas Ave & F St	SSSC	No	No
5	50th St & H St	SSSC	No	No
6	51st St & H St	SSSC	No	No
8	Coloma Way & D St	AWSC	No	No
9	51st St & C St	SSSC	No	No
10	Elvas Ave & C St	SSSC	No	No
11	Coloma Way/50th St & E St	SSSC	No	No
12	F Street & Western Hospital Dwy	SSSC	DNE	DNE
13	F Street & Eastern Hospital Dwy	SSSC	DNE	DNE
14	F Street & Project Access	SSSC	No	No
15	53rd St & 51st St/D St	SSSC	No	No

Notes: AWSC = All-Way Stop Control, SSSC = Side Street Stop Control, DNE = Does not Exist
Source: Kittelson & Associates, 2013

Table 5.8-9 Roadway Segment Level of Service – Existing Conditions

Roadway	Segment	Classification	Lanes	Existing No Project			Scenario 1: Existing Plus Proposed Project			Scenario 2: Existing Plus No 53rd St Extension		
				Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS
50th Street	F Street to H Street	Local	2	1,389	0.28	A	675	0.13	A	737	0.15	A
51st Street	F Street to H Street	Local	2	596	0.12	A	738	0.15	A	821	0.16	A
52nd Street	F Street to H Street	Local	2	773	0.15	A	626	0.13	A	647	0.13	A
53rd Street	F Street to H Street	Local	2	3,132	0.63	B	620	0.12	A	434	0.09	A
F Street	50th Street to 52nd Street	Local	2	1,410	0.28	A	905	0.18	A	988	0.20	A
F Street	52nd Street to 53rd Street	Local	2	2,065	0.41	A	1,393	0.28	A	1,434	0.29	A
F Street	53rd Street to Elvas Avenue	Local	2	2,583	0.52	A	1,576	0.32	A	1,452	0.29	A
Coloma Way	North of E Street	Collector	2	826	0.09	A	491	0.06	A	491	0.06	A
Coloma Way	D Street to B Street	Collector	2	497	0.06	A	330	0.04	A	330	0.04	A
D Street	51st to Coloma Way	Local	2	528	0.11	A	611	0.12	A	652	0.13	A
C Street	51st to Coloma Way	Local	2	301	0.06	A	342	0.07	A	342	0.07	A
51st Street	C Street to Brand Way	Local	2	357	0.07	A	378	0.08	A	378	0.08	A
C Street	51st Street to Elvas Avenue	Local	2	810	0.16	A	851	0.17	A	872	0.17	A
E Street	East of Coloma Way	Local	2	1,344	0.27	A	234	0.05	A	275	0.06	A

Source: Kittelson & Associates, 2013

NEAR TERM CUMULATIVE NO PROJECT CONDITIONS

The Near Term No Project year is defined as the future year when the Lane Conversion project for J Street and Folsom Boulevard is completed and the proposed project is not yet built. The impacts of near term planned roadway improvements on traffic volumes in the vicinity of the project were analyzed with the presence of Sutter Memorial Hospital traffic without the proposed project traffic. The intersection and roadway lane configurations and traffic controls are not anticipated to change at the study locations under the near term conditions

TRAFFIC VOLUMES

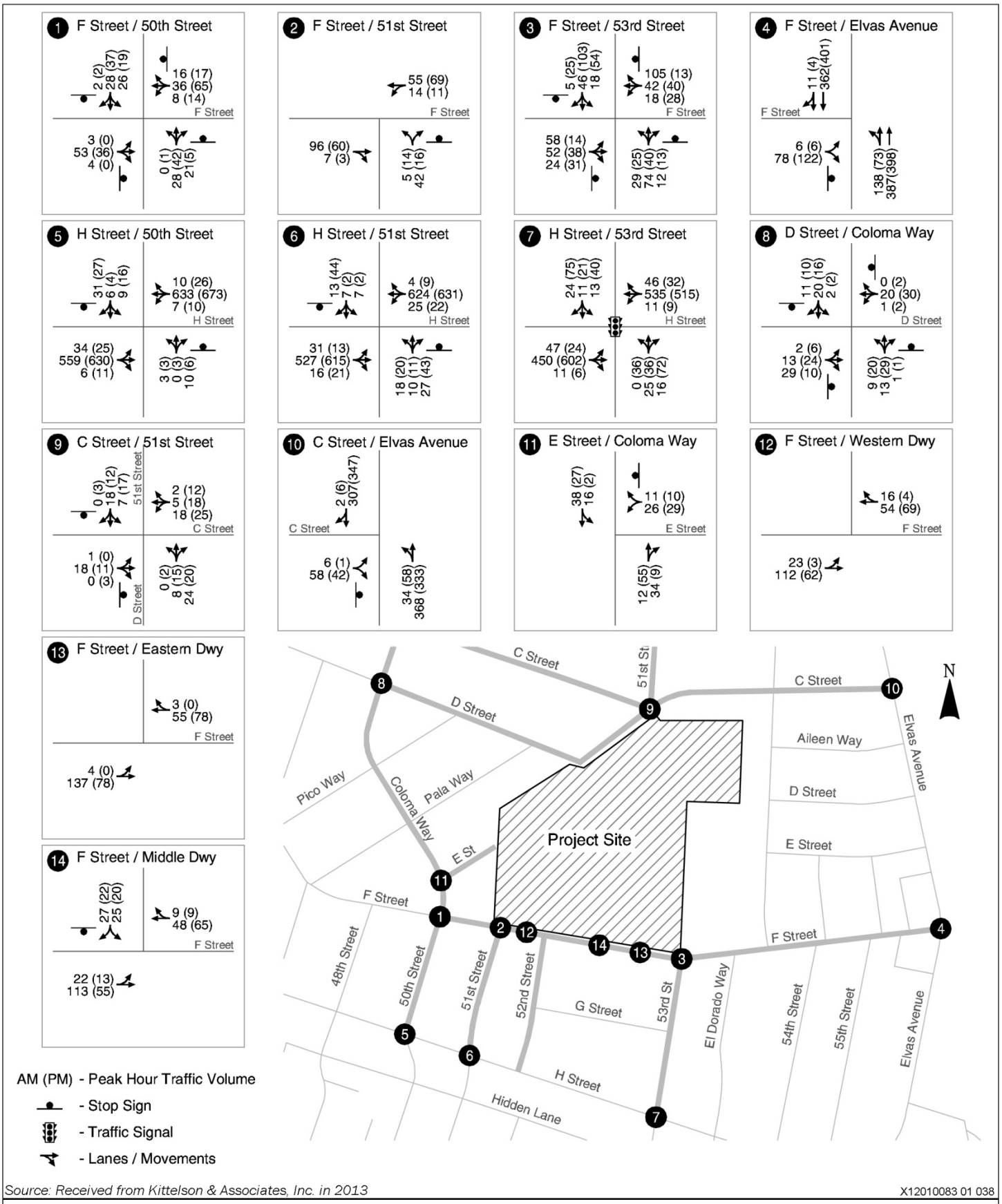
The “near term cumulative no project” scenario assumes the project site remains as existing. Traffic volumes for this scenario were developed to reflect changes in traffic patterns along the study segments and intersections as a result of the proposed conversion of segments of J Street and Folsom Boulevard from four lanes to two lanes and the addition of a center two-way left turn lane. These improvements will make J Street between 42nd Street and 56th Street and Folsom Boulevard between 34th Street and 47th Street consistent with the 2030 General Plan.

Kittleson and Associates used traffic volume estimates prepared by DKS Associates in 2011 for the J Street and Folsom Boulevard Lane Conversion project to determine changes in traffic volumes along study segments and intersections as a result of those roadway improvements. The changes in volume associated with those improvements were added to the existing volumes Exhibit 5.8-17 illustrates the near term cumulative no project turning movements during the AM and PM peak hours. Daily traffic volumes are shown in Exhibit 5.8-18.

NEAR TERM CUMULATIVE (WITHOUT PROJECT) LEVEL OF SERVICE INTERSECTION AND ROADWAY ANALYSIS RESULTS

As shown in Table 5.8-10, the changes in traffic following the J Street and Folsom Boulevard improvement project would result in traffic volumes at study intersections that are acceptable within City standards. All study intersections are projected to operate at the same LOS as under the existing no project conditions. Table 5.8-11 shows that none of the unsignalized intersections meet the peak hour signal warrant criteria. Similar to intersection operations, the study roadway segments (Table 5.8-12) are estimated to function acceptably according to the City standards.

The LOS worksheets and signal warrant sheets are provided in Appendix G, Part 6 and Part 9 respectively.



Source: Received from Kittelson & Associates, Inc. in 2013

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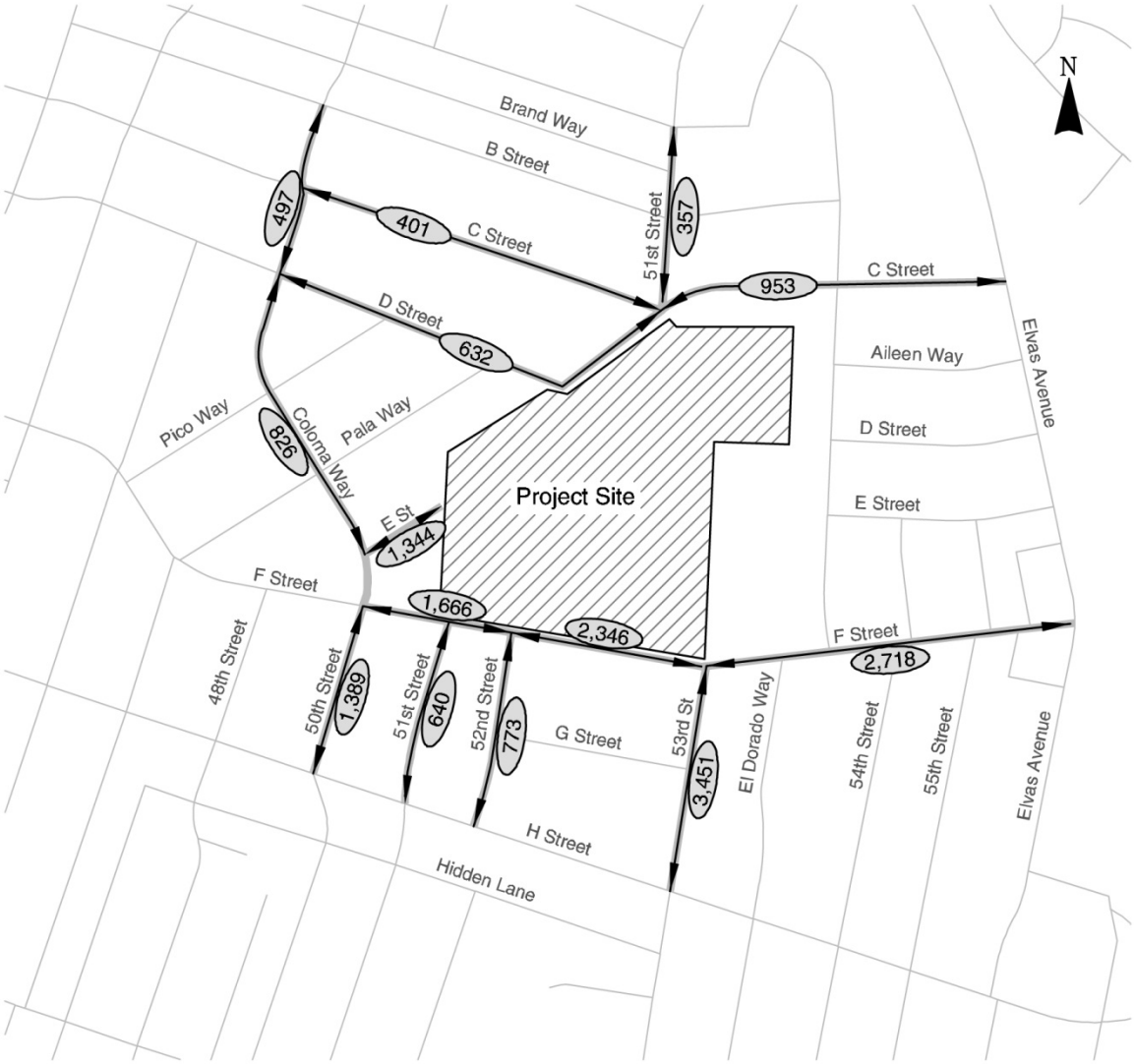
Exhibit 5.8-17

Near Term Cumulative No Project Conditions Peak Hour Intersection Traffic Volumes



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-18

Near Term Cumulative No Project Conditions
Daily Roadway Segment Volumes

Table 5.8-10 Intersection Levels of Service – Near Term Cumulative Conditions

#	Intersection	Control	Peak Hour	Level of Service	Average Delay [1]
1	50th St & F St	AWSC	AM	A	7.5
			PM	A	7.6
2	51st St & F St	SSSC	AM	A (A)	2.4 (9.1)
			PM	A (A)	2.1 (9.2)
3	53rd St & F St	AWSC	AM	A	8.3
			PM	A	8.3
4	Elvas Ave & F St	SSSC	AM	A (B)	2.3 (10.8)
			PM	A (B)	2.1 (10.9)
5	50th St & H St	SSSC	AM	A (C)	1.5 (21.7)
			PM	A (D)	1.7 (30.0)
6	51st St & H St	SSSC	AM	A (D)	2.5 (29.1)
			PM	A (D)	2.7 (32.7)
7	53rd St & H St	Signal	AM	A	3.9
			PM	A	6.9
8	Coloma Way & D St	AWSC	AM	A	7.0
			PM	A	7.3
9	51st St & C St	SSSC	AM	A (A)	1.8 (4.8)
			PM	A (A)	1.6 (4.7)
10	Elvas Ave & C St	SSSC	AM	A (B)	1.4 (11.0)
			PM	A (B)	1.4 (10.9)
11	Coloma Way/50th St & E St	SSSC	AM	A (A)	3.3 (9.1)
			PM	A (A)	2.8 (9.0)
12	F St & Western Hospital Dwy	SSSC	AM	A (A)	0.9 (1.4)
			PM	A (A)	0.2 (0.4)
13	F St & Eastern Hospital Dwy	SSSC	AM	A (A)	0.2 (0.2)
			PM	A (A)	0.0 (0.0)
14	F St & Middle Hospital Dwy	SSSC	AM	A (A)	2.7 (9.5)
			PM	A (A)	2.6 (9.2)

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control
[1] For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for worse movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Table 5.8-11 Signal Warrant Analysis – Near Term Cumulative Conditions

#	Intersection	Control	Peak Hour Warrant Met?	
			AM Peak	PM Peak
1	50th St & F St	AWSC	No	No
2	51st St & F St	SSSC	No	No
3	53rd St & F St	AWSC	No	No
4	Elvas Ave & F St	SSSC	No	No
5	50th St & H St	SSSC	No	No
6	51st St & H St	SSSC	No	No
8	Coloma Way & D St	AWSC	No	No
9	51st St & C St	SSSC	No	No
10	Elvas Ave & C St	SSSC	No	No
11	Coloma Way/50th St & E St	SSSC	No	No
12	F Street & Western Hospital Dwy	SSSC	No	No
13	F Street & Eastern Hospital Dwy	SSSC	No	No
14	F Street & Middle Hospital Dwy	SSSC	No	No

Notes: AWSC = All-Way Stop Control, SSSC = Side Street Stop Control
Source: Kittelson & Associates, 2013

Table 5.8-12 Roadway Segment Levels of Service – Near Term Cumulative Conditions

Roadway	Segment	Classification	Lanes	Average Daily Traffic	V/C Ratio	LOS
50th Street	F Street to H Street	Local	2	1,389	0.28	A
51st Street	F Street to H Street	Local	2	640	0.13	A
52nd Street	F Street to H Street	Local	2	773	0.15	A
53rd Street	F Street to H Street	Local	2	3,451	0.69	B
F Street	50th Street to 52nd Street	Local	2	1,666	0.33	A
F Street	52nd Street to 53rd Street	Local	2	2,346	0.47	A
F Street	53rd Street to Elvas Avenue	Local	2	2,718	0.54	A
Coloma Way	North of E Street	Collector	2	826	0.09	A
Coloma Way	D Street to B Street	Collector	2	497	0.06	A
D Street	51st to Coloma Way	Local	2	632	0.13	A
C Street	51st to Coloma Way	Local	2	401	0.08	A
51st Street	C Street to Brand Way	Local	2	357	0.07	A
C Street	51st Street to Elvas Avenue	Local	2	953	0.19	A
E Street	East of Coloma Way	Local	2	1,344	0.27	A

Source: Kittelson & Associates, 2013

NEAR TERM CUMULATIVE PLUS PROJECT CONDITIONS

The Near Term Cumulative Plus Project year is defined as the future year when the Lane Conversion Project for J Street and Folsom Boulevard is completed and the proposed project is fully built. This scenario analyzes the impact of the near term planned roadway improvements (near term cumulative conditions) on traffic volumes in the vicinity of the project under buildout conditions (with proposed project traffic and without Sutter Memorial Hospital traffic). The Near Term Cumulative Plus Project traffic analysis results are compared with the Near Term Cumulative No Project (see Methods of Analysis, above) to determine the traffic impacts. Both access scenarios were evaluated.

TRAFFIC VOLUMES

The proposed project traffic volumes were added to the near term cumulative no project volumes (as described in the previous section) to project near term cumulative plus project volumes. Exhibit 5.8-19 shows intersection turning movement volumes for the proposed project during the AM and PM peak hours. The roadway daily volumes for this scenario are illustrated on Exhibit 5.8-20. The AM and PM hour turning movements and roadway daily volumes for the “No 53rd Street Extension” scenario are shown in Exhibit 5.8-21 and Exhibit 5.8-22 respectively. The existing traffic patterns are not predicted to change significantly based on the SACMET model runs. Given the amount of traffic these roadways serve and the available capacity on the new proposed project streets, a slight change in traffic pattern may be experienced that is unlikely to pose any operational issues at nearby intersections and roadways.

LEVEL OF SERVICE ANALYSIS RESULTS

Table 5.8-13 shows the near term plus project operating conditions at the study intersections while Table 5.8-14 shows the signal warrant analysis results. Table 5.8-15 shows the operating conditions along the study segments. For both access scenarios, all the roadway segments and intersections are projected to operate within the City’s level of service standards following the addition of project traffic to the near term cumulative no project traffic conditions. The study intersections and roadway segments are projected to operate at the same LOS levels as the near term no project conditions. In addition, the study locations would operate at identical LOS levels for both access scenarios. A signal warrant analysis using MUTCD Warrant #3 found that none of the stop-controlled intersections met the conditions necessary to warrant a traffic signal for both access scenarios.

The LOS worksheets and signal warrant sheets are provided in Appendix G, Part 7 and Part 9 respectively.

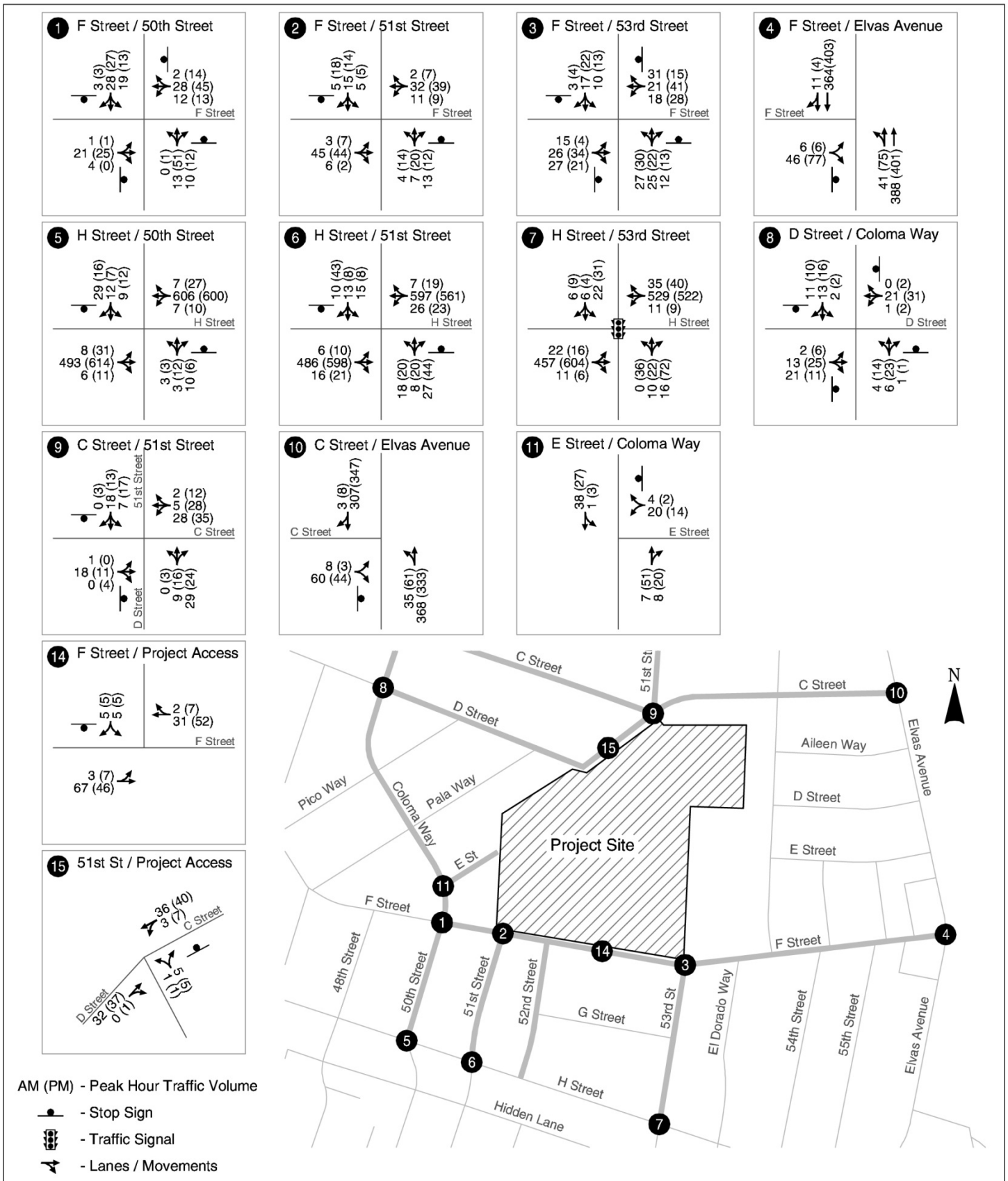
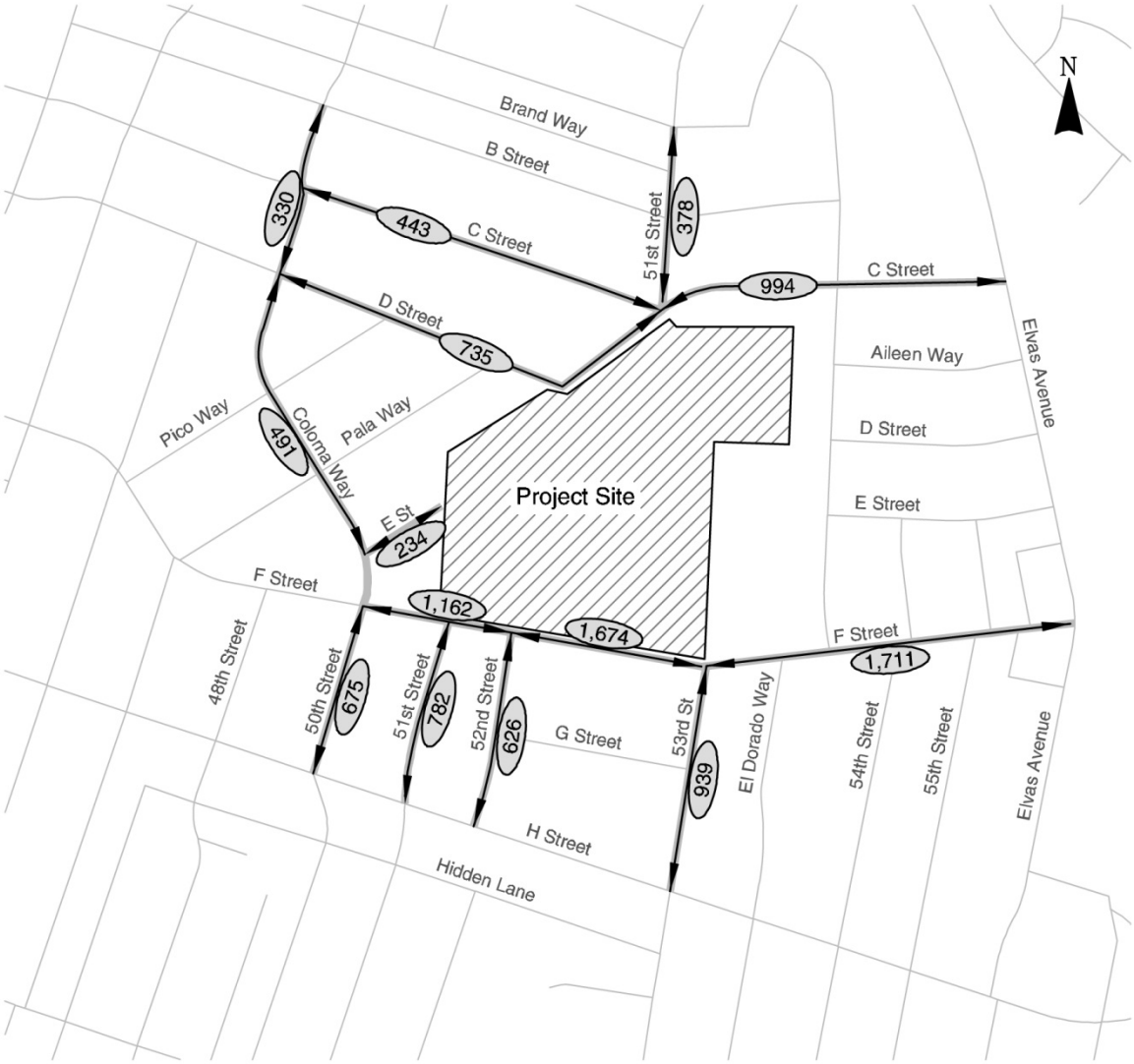


Exhibit 5.8-19

Near Term Cumulative Plus Project Peak Hour Intersection Traffic Volumes – Proposed Project Scenario



Source: Received from Kittelson & Associates, Inc. in 2013

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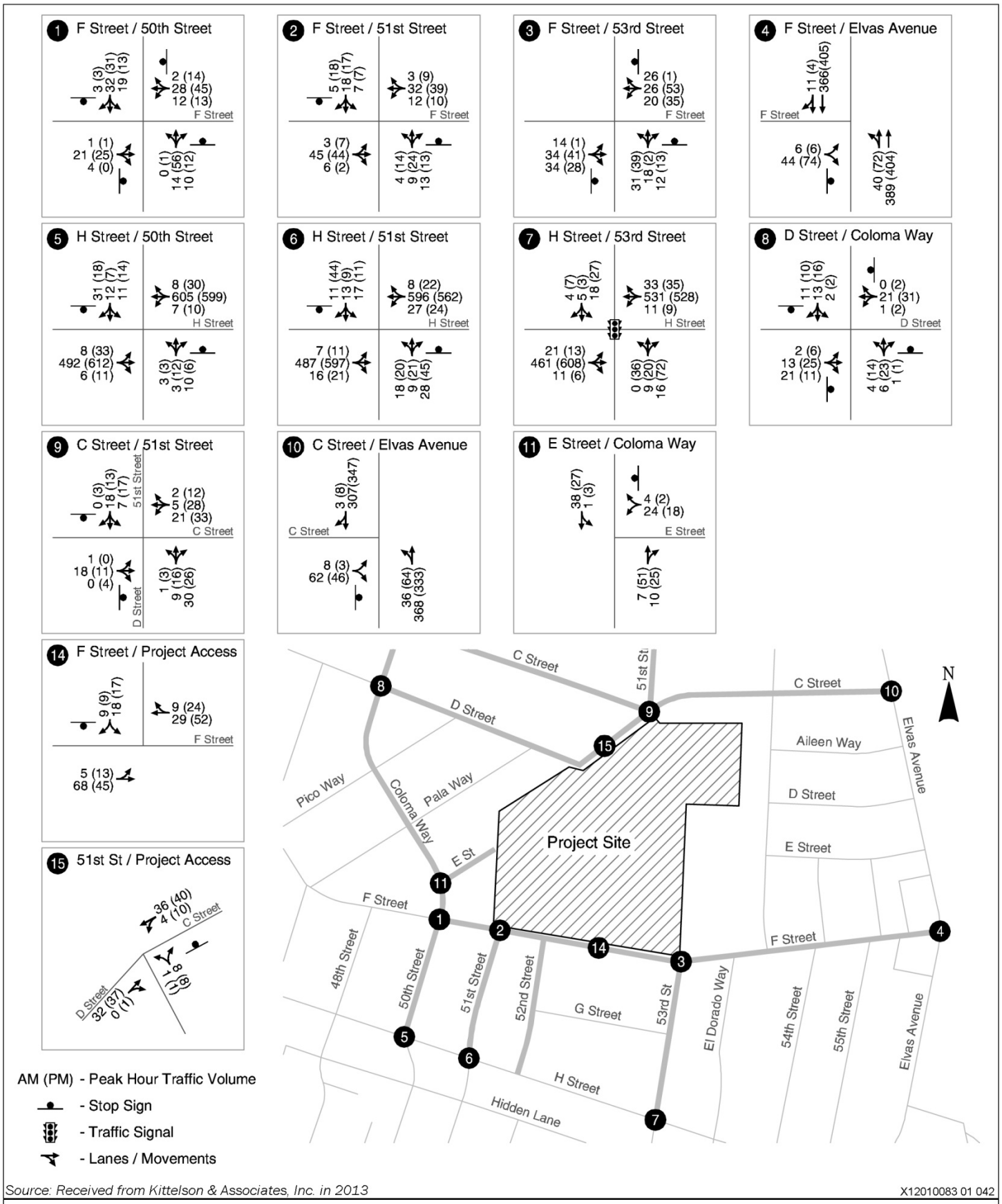
Exhibit 5.8-20

Near Term Cumulative Plus Project Daily Roadway Segment Volumes – Proposed Project Scenario



Source: Received from Kittelson & Associates, Inc. in 2013

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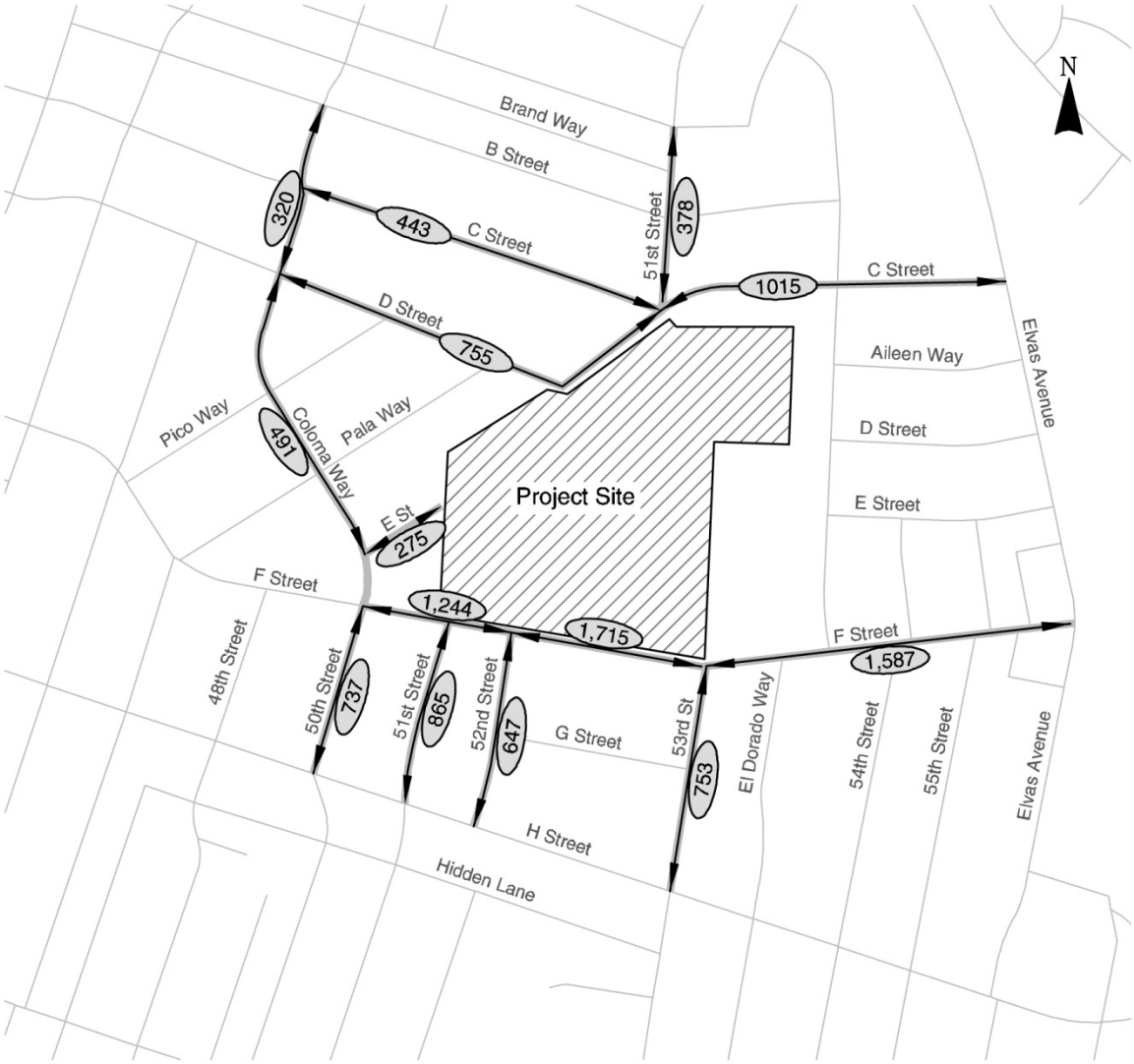
Exhibit 5.8-21

Near Term Cumulative Plus Project Peak Hour Intersection Traffic Volumes – No 53rd Street Extension Scenario



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-22

Near Term Cumulative Plus Project Daily Segment Volumes – No 53rd Street Extension Scenario

Table 5.8-13 Intersection Levels of Service – Near Term Cumulative Plus Project

#	Intersection	Control	Peak Hour	Near Term Cumulative No Project		Scenario 1: Near Term with Proposed Project		Scenario 2: Near Term with No 53rd St Extension	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
1	50th St & F St	AWSC	AM	A	7.5	A	7.3	A	7.3
			PM	A	7.6	A	7.4	A	7.5
2	51st St & F St	SSSC	AM	A (A)	2.4 (9.1)	A (A)	3.8 (9.5)	A (A)	4.1 (9.6)
			PM	A (A)	2.1 (9.2)	A (A)	4.8 (9.7)	A (A)	5.0 (9.8)
3	53rd St & F St	AWSC	AM	A	8.3	A	7.4	A	7.5
			PM	A	8.3	A	7.5	A	7.7
4	Elvas Ave & F St	SSSC	AM	A (B)	2.3 (10.8)	A (B)	1.1 (10.4)	A (B)	1.0 (10.4)
			PM	A (B)	2.1 (10.9)	A (B)	1.7 (10.7)	A (B)	1.6 (10.7)
5	50th St & H St	SSSC	AM	A (C)	1.5 (21.7)	A (C)	1.3 (20.5)	A (C)	1.4 (21)
			PM	A (D)	1.7 (30.0)	A (D)	1.8 (29.4)	A (D)	1.9 (30.1)
6	51st St & H St	SSSC	AM	A (D)	2.5 (29.1)	A (D)	2.3 (27.8)	A (D)	2.5 (28.7)
			PM	A (D)	2.7 (32.7)	A (D)	3.3 (32.3)	A (D)	3.6 (33.2)
7	53rd St & H St	Signal	AM	A	3.9	A	3.4	A	2.8
			PM	A	6.9	A	5.6	A	5.5
8	Coloma Way & D St	AWSC	AM	A	7	A	7	A	7
			PM	A	7.3	A	7.3	A	7.3
9	51st St & C St	SSSC	AM	A (A)	1.8 (4.8)	A (A)	1.7 (5.1)	A (A)	4.5 (9.6)
			PM	A (A)	1.6 (4.7)	A (A)	1.6 (4.8)	A (A)	6.0 (9.6)
10	Elvas Ave & C St	SSSC	AM	A (B)	1.4 (11.0)	A (B)	1.5 (11.2)	A (B)	1.5 (11.2)
			PM	A (B)	1.4 (10.9)	A (B)	1.5 (11.2)	A (B)	1.6 (11.2)
11	Coloma Way/ 50th St & E St	SSSC	AM	A (A)	3.3 (9.1)	A (A)	2.8 (8.9)	A (A)	3.1 (8.9)
			PM	A (A)	2.8 (9.0)	A (A)	1.4 (9.0)	A (A)	1.6 (9)
12	F St & Western Hospital Dwy	SSSC	AM	A (A)	0.9 (1.4)	DNE	DNE	DNE	DNE
			PM	A (A)	0.2 (0.4)	DNE	DNE	DNE	DNE
13	F St & Eastern Hospital Dwy	SSSC	AM	A (A)	0.2 (0.2)	DNE	DNE	DNE	DNE
			PM	A (A)	0.0 (0.0)	DNE	DNE	DNE	DNE
14	F St & Project Access/ Middle Hospital Dwy	SSSC	AM	A (A)	2.7 (9.5)	A (A)	1.0 (8.9)	A (A)	2.1 (9.1)
			PM	A (A)	2.6 (9.2)	A (A)	1.2 (8.9)	A (A)	2.1 (9.2)
15	53rd St & 51st St/D St	SSSC	AM	DNE	DNE	A (A)	1.0 (8.5)	A (A)	1.5 (8.5)
			PM	DNE	DNE	A (A)	1.1 (8.6)	A (A)	1.6 (8.6)

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control, DNE = Does Not Exist
1 For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for worse movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Table 5.8-14 Signal Warrant Analysis – Near Term Cumulative Plus Project

#	Intersection	Control	Peak Hour Warrant Met?	
			AM Peak	PM Peak
1	50th St & F St	AWSC	No	No
2	51st St & F St	SSSC	No	No
3	53rd St & F St	AWSC	No	No
4	Elvas Ave & F St	SSSC	No	No
5	50th St & H St	SSSC	No	No
6	51st St & H St	SSSC	No	No
8	Coloma Way & D St	AWSC	No	No
9	51st St & C St	SSSC	No	No
10	Elvas Ave & C St	SSSC	No	No
11	Coloma Way/50th St & E St	SSSC	No	No
12	F Street & Western Hospital Dwy	SSSC	DNE	DNE
13	F Street & Eastern Hospital Dwy	SSSC	DNE	DNE
14	F Street & Project Access	SSSC	No	No
15	53rd St & 51st St/D St	SSSC	No	No

Notes: AWSC = All-Way Stop Control, SSSC = Side Street Stop Control, DNE = Does not Exist
Source: Kittelson & Associates, 2013

Table 5.8-15 Roadway Segment Levels of Service for Access Scenarios – Near Term Cumulative Conditions

Roadway	Segment	Classification	Lanes	Near Term Cumulative No Project			Scenario 1: Near Term with Proposed Project			Scenario 2: Near Term with No 53rd St Extension		
				Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS
50th Street	F Street to H Street	Local	2	1,389	0.28	A	675	0.13	A	737	0.13	A
51st Street	F Street to H Street	Local	2	640	0.13	A	782	0.16	A	865	0.16	A
52nd Street	F Street to H Street	Local	2	773	0.15	A	626	0.13	A	647	0.13	A
53rd Street	F Street to H Street	Local	2	3,451	0.69	B	939	0.19	A	753	0.19	A
F Street	50th Street to 52nd Street	Local	2	1,666	0.33	A	1,162	0.23	A	1,244	0.23	A
F Street	52nd Street to 53rd Street	Local	2	2,346	0.47	A	1,674	0.33	A	1,715	0.33	A
F Street	53rd Street to Elvas Avenue	Local	2	2,718	0.54	A	1,711	0.34	A	1,587	0.34	A
Coloma Way	North of E Street	Collector	2	826	0.09	A	491	0.06	A	491	0.06	A
Coloma Way	D Street to B Street	Collector	2	497	0.06	A	330	0.04	A	330	0.04	A
D Street	51st to Coloma Way	Local	2	632	0.13	A	714	0.14	A	755	0.14	A
C Street	51st to Coloma Way	Local	2	401	0.08	A	443	0.09	A	443	0.09	A
51st Street	C Street to Brand Way	Local	2	357	0.07	A	378	0.08	A	378	0.08	A
C Street	51st Street to Elvas Avenue	Local	2	953	0.19	A	994	0.20	A	1,015	0.20	A
E Street	East of Coloma Way	Local	2	1,344	0.27	A	234	0.05	A	275	0.05	A

Source: Kittelson & Associates, 2013

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

This section describes the project-specific transportation impacts of the project. It includes both the Proposed Project and "No 53rd Street Extension" access scenarios.

EXISTING CONDITIONS

This section describes the project-specific transportation impacts under the existing conditions.

IMPACT 5.8-1	Impacts to study intersections.

According to the significance criteria and results in Table 5.8-7, all study intersections would continue to operate at an acceptable level of service under Existing Plus Project conditions for both the Proposed Project and the No 53rd Street Extension access scenarios. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-2	Impacts to study roadways.

Table 5.8-9 shows the operating conditions along the study roadway segments. All the street segments and intersections for both access scenarios are projected to operate within the City's level of service standards following the addition of project traffic to existing traffic conditions. The study roadway segments would operate at the same LOS as the existing no project conditions. In addition, the study locations would operate at an identical LOS for both access scenarios.

The proposed project would not add traffic to most of roadway segments because implementation of the proposed project would reduce the amount of traffic within the study area except for 51st Street, C Street, and D Street which is expected to experience a slight increase in daily traffic. As shown in Table 5.8-9, all study roadways would continue to operate at an acceptable level of service under Existing Plus Project conditions for both Proposed Project and No 53rd Street Extension access scenarios. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-3	Impacts to transit facilities.

The project would not adversely affect public transit operations, because the project would not alter or eliminate the existing transit route # 34. The public would continue to have the same level of access to transit as under existing conditions for both Proposed Project and the No 53rd Street Extension access scenarios. Therefore, the impact of the project on the transit system is considered **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-4	Impacts to bicycle facilities.

The proposed project would result in the construction of up to 125 residential units and 5,000 square feet of retail space. This would increase the resident population on the project site and is expected to result in an increase in bicycle trips in the study area by residents and shopping center patrons. The project would not alter or eliminate the existing bikeways or interfere with the implementation of the planned bikeways in the study area. The Proposed Project and the No 53rd Street Extension access scenarios should benefit pedestrians and cyclists by providing additional connections between C Street and F Street. Therefore, implementation of the proposed project would result in a **less-than-significant** impact on bicycle facilities.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-5	Impacts to pedestrian facilities.

The proposed project would result in an increase in the generation of pedestrian trips in the study area by residents and shopping center patrons; however the amount of pedestrian trips could be less than under existing conditions with the Sutter Memorial Hospital. The proposed project would not result in unsafe condition for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle conflict, because the proposed streets within the project site would be designed in accordance with the City's "Pedestrian Friendly Street Standards" that would provide for pedestrian needs and enhance connectivity with existing City streets. The Proposed Project and the No 53rd Street Extension access scenarios should benefit pedestrians and cyclists by providing additional access between C Street and

F Street. Therefore, the impact of the project on the pedestrian facilities is considered **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-6	Construction-related impacts to circulation.

As discussed in Chapter 3, Project Description, the proposed project would include the decommissioning and demolition of existing uses on the project site, including Sutter Memorial Hospital. A conceptual Demolition Work Plan (DWP) was prepared by Cleveland Wrecking Company describing an approach to deconstruction and demolition of the existing hospital structures and site improvements. It is anticipated that some of the on-site demolition material would be salvaged, sorted, crushed, and/or processed for re-use onsite or transported (hauled) to local recycling facilities.

According to the DWP, the hospital demolition phase would be approximately 180 calendar days. This timeline does not take into consideration any hazardous material remediation. Depending on the extent of on-site processing of materials, hauling operations are estimated to run between 60 and 120 days during demolition. The demolition contractor would operate onsite with general working hours of 8:00 AM – 4:30 PM, Monday through Friday. The hours of operation may vary from day to day depending on the type of work underway at a given time, but demolition and construction operations would comply with all applicable City of Sacramento codes, including Section 8.68. Between 20 and 40 operators, laborers, flagmen and supervisors would be present at the demolition site on any given day.

The primary access point to haul materials would be the existing 53rd Street access between the project site and the professional building to the east of the site. Secondary construction routes may leverage the existing entrances to the hospital site, such as the main hospital entrance off F Street and the entrance on E Street. The DWP identifies a haul route to minimize impacts to the neighboring community. The anticipated primary route would divert trucking directly to commercial areas by accessing Elvas Avenue from F Street. Heavy trucks could take Elvas Avenue directly to 65th Street to access the Interstate or continue to Folsom Boulevard and onward to any of several recycling facilities in South Sacramento.

The number of trucks that would access the site during the construction was calculated using the data provided in the *Conceptual Demolition Work Plan* (Cleveland Wrecking Company, March 2013). While the plan provided a range of loads per day, the upper limit was used for the most conservative estimates. The plan identified the daily loads to be 120. If a roundtrip is captured, 240 trucks would access the site during construction. Since the anticipated primary route for trucks would be Elvas Avenue to/from F Street, the presence of construction traffic would be limited to the F Street/53rd Street intersection and the F Street segment east of 53rd Street. Currently, this local roadway serves approximately,2,590 vehicles daily. Following the closing and removal of the hospital, the daily traffic on

this segment is estimated to 1,270. During construction there would be about 240 trucks using the roadway. The resultant daily volume would be below the existing volume by about 1,000 vehicles. The effects of demolition/construction and related truck traffic could adversely affect existing motorists, bicycle, pedestrian or transit facilities. Therefore, the impacts would be considered **potentially significant**.

Mitigation Measure 5.8-6

Before issuance of a demolition permit and the beginning of construction on the project site, the project applicant shall prepare a detailed Traffic Management Plan that will be subject to review and approval by the City Department of Public Works and subject to review by the affected agencies. The plan shall ensure maintenance of acceptable operating conditions on local roadways and transit routes. At a minimum, the plan shall include:

- *The number of truck trips, time, and day of street closures, if any.*
- *Time of day of arrival and departure of trucks.*
- *Limitations on the size and type of trucks; provision of a staging area with a limitation on the number of trucks that can be waiting.*
- *Provision of a truck circulation pattern.*
- *Provision of a driveway access plan to maintain safe vehicular, pedestrian, and bicycle movements (e.g., steel plates, minimum distances of open trenches, and private vehicle pick up and drop off areas).*
- *The maintenance of safe and efficient access routes for emergency vehicles.*
- *Efficient and convenient transit routes.*
- *Manual traffic control when necessary.*
- *Proper advance warning and posted signage concerning street closures, if any.*
- *Provisions for pedestrian safety.*
- *Provisions for temporary bus stops, if necessary.*

A copy of the construction traffic management plan shall be submitted to local emergency response agencies, and these agencies shall be notified at least 14 days before the commencement of demolition or construction.

Implementation of this mitigation measure would reduce impacts associated with construction related activities to a less than **less-than-significant** level because the Traffic Management Plan will comply with City of Sacramento policies and practices.

NEAR TERM CUMULATIVE IMPACTS AND MITIGATION MEASURES

IMPACT 5.8-7	Near Term Cumulative impacts to study intersections.

According to the significance criteria and results in Table 5.8-13, all study intersections would continue to operate at an acceptable level of service under Near Term Cumulative Plus Project conditions for both proposed and No Access to 53rd Street access scenarios. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-8	Near Term Cumulative impacts to study roadways.

The proposed project would not add traffic to most of roadway segments since replacing the Sutter Memorial Hospital with the proposed project would reduce amount of traffic within the study area except for the 51st Street, C Street and D Street which is expected to experience a slight increase in daily traffic. According to the significance criteria and results in Table 5.8-14, all study roadways would continue to operate at an acceptable level of service under Near Term Cumulative Plus Project conditions for both proposed and No 53rd Street Extension scenario. Therefore, this is considered a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-9	Near Term Cumulative impacts to transit facilities.

The project would not adversely affect public transit operations. The project is not anticipated to hinder or eliminate the existing transit route # 34. The public would continue to have the same level of access to transit as under existing conditions for both Proposed Project and No 53rd Street Extension access scenarios . Therefore, the impact of the project on the transit system is considered **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-10	Near Term Cumulative impacts to bicycle facilities.

The Proposed Project and all access locations would result in an increase in bicycle trips in the study area by residents and shopping center patrons. However, the project is not anticipated to hinder or eliminate the existing bikeways or interfere with the implementation of the planned bikeways in the study area. The Proposed Project and No 53rd Street Extension access scenarios should benefit cyclists by providing additional connections between C Street and F Street. Therefore, the impact of the project on the bicycle facilities is considered **less than significant**.

Mitigation Measure

No mitigation is required.

IMPACT 5.8-11	Near Term Cumulative impacts to pedestrian facilities.

The proposed project and all access locations would result in an increase in pedestrian trips in the study area by residents and shopping center patrons but it could be less than the near term cumulative conditions with the Sutter Memorial Hospital. However, the project is not anticipated to result in unsafe condition for pedestrians, including unsafe pedestrian/bicycle or pedestrian/motor vehicle conflict. All streets within the proposed site would be designed in accordance to the City's "Pedestrian Friendly Street Standards" that would provide for pedestrian needs and enhance connectivity with existing City streets. The Proposed Project and No 53rd Street Extension access scenarios should benefit pedestrians by providing additional access between C Street and F Street. Therefore, the impact of the project on the pedestrian facilities is considered **less than significant**.

Mitigation Measure

No mitigation is required.

ON-SITE CIRCULATION ASSESSMENT

In addition to the analysis of project impacts in conjunction with the City's standards of significance for CEQA review, the following sections discuss evaluations of onsite circulation and site access intersections. The proposed project's internal streets would become part of the City's neighborhood street network. Therefore, the internal streets would be designed and constructed per City of

Sacramento Street Design Standards. All internal streets would provide one travel lane in each direction with 25 miles per hour (mph) speed limit.

Proposed Project Scenario

As mentioned earlier, access to the proposed project is planned to be provided via two existing roadways (53rd Street and E Street), one existing driveway on F Street, and and two new access points (one on F Street and one on 51st Street). The proposed connector north of F Street would be perceived as an extension of 53rd Street through the proposed project. Therefore, this connector would be designed and constructed to match the 53rd Street features.

The projected daily volumes on the internal roadways for the proposed project scenario are shown in Exhibit 5.8-23. The proposed traffic controls at the internal intersections for the proposed project scenario are illustrated in Exhibit 5.8-24.

The following traffic controls are recommended at each internal intersection:

- Parkway B and E Street: four-way stop control on E Street,
- Parkway B and D Street: four-way stop control on Parkway B,
- C Street and E Street: side-street stop control on E Street,
- A Street and E Street: side-street stop control on E Street,
- A Street and D Street: side-street stop control on A Street, and
- C Street and 53rd Street: side-street stop control on C Street.

The wide median on Parkway B between D Street/53rd Street and E Street would create an offset intersection on both ends, which could potentially pose safety issues. Therefore, it is recommended to reconfigure wide median on both ends. As such, the median would taper off at the intersection, forming a standard four-legged intersection. The concept of this recommendation along with traffic controls is shown on Exhibit 5.8-24.

No 53rd Street Extension Scenario

The “No 53rd Street Extension” scenario would not have an access at 53rd Street, but it would include four other access locations similar to the proposed project. The north leg of the 53rd Street and F Street would continue to provide inbound only movement to the adjacent medical building. The projected daily volumes on the internal roadways for the “No 53rd Street Extension” scenario are shown in Exhibit 5.8-25. The proposed traffic controls at the internal intersections for the “No 53rd Street Extension” scenario are illustrated in Exhibit 5.8-26.

Source: Received from Kittelson & Associates, Inc. in 2013

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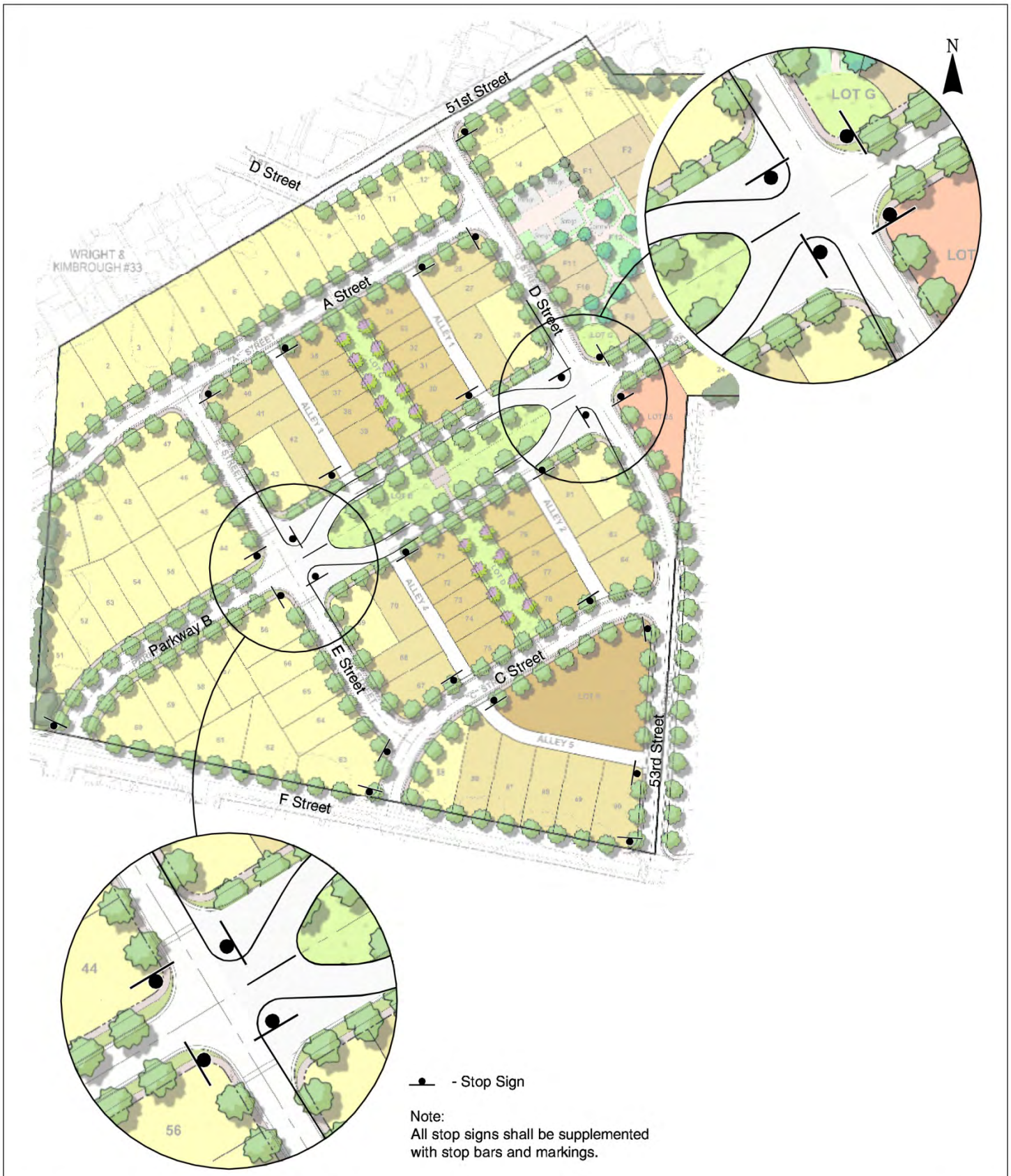
Exhibit 5.8-23 **Near Term Cumulative Internal Roadways Daily Volumes – Proposed Project Scenario**



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-24

Conceptual Traffic Control at Internal and Access Intersections – Proposed Project

Source: Received from Kittelson & Associates, Inc. in 2013

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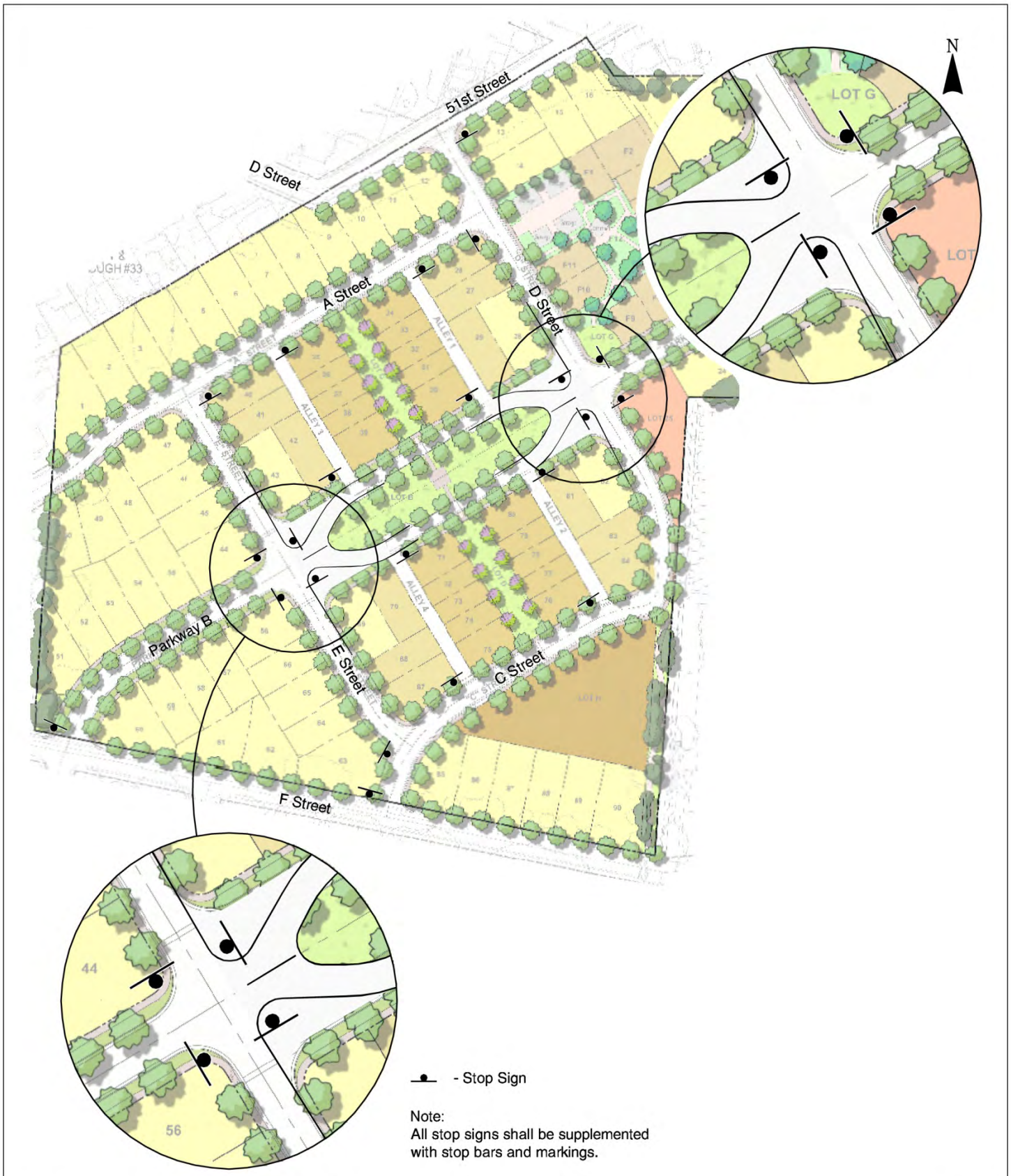
Exhibit 5.8-25 **Near Term Cumulative Internal Roadways Daily Volumes – No 53rd Street Extension Scenario**



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 5.8-26 **Conceptual Traffic Control at Internal and Access Intersections– No 53rd Street Extension**

The following traffic controls are recommended at each internal intersection:

- Parkway B and E Street: four-way stop control on E Street,
- Parkway B and D Street: four-way stop control on Parkway B,
- C Street and E Street: side-street stop control on E Street,
- A Street and E Street: side-street stop control on E Street, and
- A Street and D Street: side-street stop control on A Street.

Similar to the proposed project scenario, the wide median on Parkway B between D Street/53rd Street and E Street would create an offset intersection on both ends, which could potentially pose safety issues. Therefore, the same recommendation is made for the "No 53rd Street Extension" scenario as for the proposed project scenario. The concept of this recommendation along with traffic controls is shown on Exhibit 5.8-26.

SITE ACCESS INTERSECTIONS

With the flat terrain, all project access points would provide sufficient sight distance. Shrubbery and landscaping near the internal intersections and site access points should be maintained to ensure the adequate sight distance.

PROPOSED PROJECT SCENARIO

The traffic analysis showed that the proposed project connector (north leg of the F Street/53rd Street intersection) would carry approximately 50 and 80 vehicles during the AM and PM peak hours respectively. Based on the site plan and internal street layout, this intersection would be utilized as one of the main access points to the proposed site. The north leg of the F Street/51st Street would carry approximately 40 and 60 vehicles during the AM and PM peak hours and can be categorized as a secondary access point to the proposed site. All other access points are projected to serve about 10-25 vehicles during the AM or PM peak hour. As shown earlier, all site access intersections are anticipated to operate at LOS B or better during the AM and PM peak hours.

The site access intersections would provide the following traffic controls (Exhibit 5.8-24):

- F Street/53rd Street: all-way stop control,
- F Street/51st Street: two-way stop control on 51st Street and site access (Parkway B),
- F Street/Site Access (C Street): side-street stop control on site access, and
- 51st Street/Site Access (D Street): side-street stop control on site access.

NO 53RD STREET EXTENSION SCENARIO

The traffic analysis showed that the proposed access at the north leg of the F Street/51st Street intersection) would carry approximately 45 and 70 vehicles during the AM and PM peak hours respectively. Based on the site plan and internal street layout, this intersection would be utilized as one

of the main access points to the proposed site. Another F Street access between 52nd Street and 53rd Street would carry approximately 41 and 63 vehicles during the AM and PM peak hours and can be categorized second primary access point to the proposed site. All other access are projected to serve about 10-40 vehicles during the AM or PM peak hour. As shown earlier, all site access intersections are anticipated to operate at LOS B or better during the AM and PM peak hours.

The site access intersections shall provide the following traffic controls (Exhibit 5.8-26):

- F Street/51st Street: two-way stop control on 51st Street and site access (Parkway B)
- F Street/Site Access (C Street): side-street stop control on site access
- 51st Street/Site Access (D Street): side-street stop control on site access

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5.9 PUBLIC SERVICES AND RECREATION

This section of the Draft EIR describes existing public services on the Sutter Memorial Hospital site and evaluates the effects of the proposed project on those services. The services evaluated in this section include:

- Police Protection,
- Fire Protection,
- Emergency Services,
- Schools,
- Libraries, and
- Recreation Facilities

Two comment letters were received in response to the NOP regarding the provision of public services and recreation (see Appendix B). One letter was received from the Sacramento Fire Department requesting that fire protection be addressed in the EIR. A second letter was received from a neighborhood resident concerning the shape and scale of the proposed neighborhood park.

Information for this section is based on the Sacramento 2030 General Plan Master Environmental Impact Report (General Plan MEIR), the City of Sacramento Police Department Annual Report, Sacramento City Unified School District (SCUSD) Sustainable Facilities Master Plan, City of Sacramento Emergency Operations Plan, County of Sacramento Multi-Hazard Mitigation Plan, Sacramento Public Library FMP 2007-2025 and 2012 Update, City of Sacramento Parks and Recreation Master Plan 2005-2010 and 2012 update, personal and written communication with service providers, and websites from the service agencies.

POLICE PROTECTION

5.9.1 ENVIRONMENTAL SETTING

The Sacramento Police Department (SPD) is responsible for providing police protection services for areas within the City, including the project site. The Police Department is staffed by 653 sworn full-time police officers, 257 civilian (career) fulltime employees, and 200 non-career employees (reserves, interns, and aides) and volunteers who provide essential services in the Department (Sacramento Police Department, 2012, p. 17). Due to budget cutbacks, no new officers have been hired since 2009; therefore, staffing and the officer per 1,000 residents ratio have decreased as retirements and attrition occur. The officers per 1,000 residents dropped to 1.38 in 2012, as shown in Table 5.9-1.

Table 5.9-1 Sacramento Police Department Staffing								
	2011 Budgeted Authorized Full-Time Staffing						Actual Filled Dec 2012	Authorized vs. Filled
	2007	2008	2009	2010	2011	2012	2012	2012
Sworn Officers	804	804	799	733	700	653	636	-17
Civilians (Career)	400.5	438.5	440.5	318	255	257	235	-22
TOTAL	1244.5	1242.5	1239.5	1051	955	891	871	-39
Officers per 1,000 Residents	1.72	1.69	1.66	1.51	1.49	1.38	1.34	--
Source: Sacramento Police Department, *2012 Annual Report*, p. 17.								

In 2011, the SPD reorganized into four offices for greater efficiency. The Office of Homeland Security was consolidated into the Office of Operational Services, and several divisions were moved. Each office is now overseen by a deputy chief. The Office of the Chief is responsible for developing and communicating the vision of the Department. This office plans, organizes, and directs Departmental policies and activities. The Office of Field Services is responsible for providing the Department's frontline services. These include the Patrol Division (located at the three neighborhood substations) and the Communications Division (911 center). The Office of Operational Services includes Metro which oversees Special Operations like K9 and SWAT, and Traffic/Air Operations. This office also includes Regional Services which encompasses Homeland Security, Training, and Public Safety Information Technology. The Office of Investigations is responsible for developing information leading to the arrest of criminal offenders. It includes Detectives and Forensics, and also oversees Records and Evidence/Property (Sacramento Police Department 2012: p. 4).

The SPD operates four stations, all within the City. The proposed project site is within the responding area of the Central/East Command (Richards Police Facility) located at 300 Richards Blvd. The project site is within Police District 3 and is located within beat 3C (see Exhibit 5.9-1). District 3 provides police protection services to the northern portion of the City, from the American River on the north to Highway 50 on the south and the Sacramento River on the west to Watt Avenue on the east.

5.9.2 REGULATORY SETTING

FEDERAL AND STATE

There are no federal or State regulations that are directly applicable to the proposed project regarding police protection.

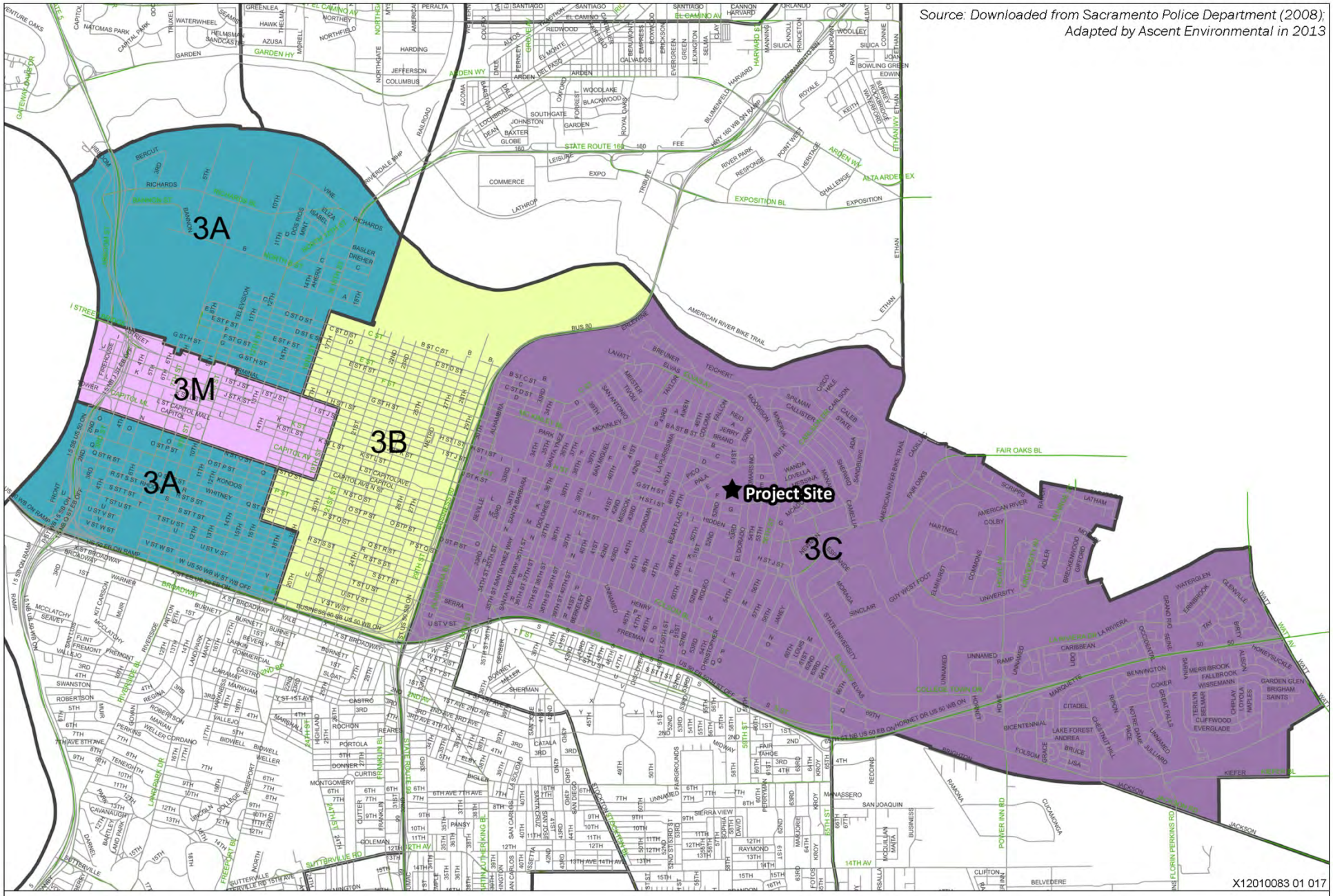

Exhibit 5.9-1 **Sacramento Police Department Locations**

LOCAL

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to police protection services within the project area:

Goal PHS 1.1 Crime and Law Enforcement. Work cooperatively with the community, regional law enforcement agencies, local government and other entities to provide quality police service that protects the long-term health, safety, and well-being of our city, reduce current and future criminal activity, and incorporate design strategies into new development.

- **Policy PHS 1.1.1 Police Master Plan.** The City shall maintain and implement a Police Master Plan to address staffing and facility needs, service goals, and deployment strategies.
- **Policy PHS 1.1.2 Response Time Standards.** The City shall strive to achieve and maintain appropriate response times for all call priority levels to provide adequate police services for the safety of all city residents and visitors.
- **Policy PHS 1.1.3 Staffing Standards.** The City shall maintain optimum staffing levels for both sworn police officers and civilian support staff in order to provide quality police services to the community.
- **Policy PHS 1.1.4 Timing of Services.** The City shall ensure that development of police facilities and delivery of services keeps pace with development and growth in the city.
- **Policy PHS 1.1.5 Distribution of Facilities.** The City shall expand the distribution of police substation type facilities to allow deployment from several smaller facilities located strategically throughout the city and provide facilities in underserved and new growth areas in order to provide appropriate response to all city residents.
- **Policy PHS 1.1.7 Development Review.** The City shall continue to include the Police Department in the review of development projects to adequately address crime and safety, and promote the implementation of Crime Prevention through Environmental Design principles.
- **Policy PHS 1.1.8 Development Fees for Facilities and Services.** The City shall require development projects to contribute fees for police protection services and facilities.

5.9.3 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

This impact analysis determines whether the proposed project would require new or expanded facilities to house additional officers required to respond to on-site emergencies, the construction of which would result in physical environmental effects. Reductions in service levels can be indicative of significant project impacts and the need for additional staff and/or police facilities. Proper staffing levels ensure

appropriate service levels and response times for police protection. The SPD has an unofficial goal of providing 2.0 to 2.5 sworn officers for every 1,000 residents and a 1:2 ratio for civilian support staff to sworn officers. The analysis of required additional SPD staff and facilities is largely based on the residential population generated by a project.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on public services and recreation are considered significant if the proposed project would:

- require, or result in, the construction of new, or the expansion of existing, facilities related to the provision of police protection.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-1	**Increase the need for police protection services.** The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. This would result in the need for less than one new sworn officer. In addition, compliance with General Plan Policies PHS 1.1.7 and 1.1.8 would result in a **less-than-significant** impact.

The proposed project would develop a 5,000 square foot mixed-use area and a maximum of 125 single-family dwelling units, which would result in an estimated population of 318, assuming 2.54 persons per household.[1] Based on a staffing ratio of two sworn officers for every 1,000 residents, the proposed project would result in the need for less than one sworn officer (0.64) to maintain current service levels. Using the higher ratio of two and a half officers per 1,000 residents, the proposed project would still generate the need for approximately one new sworn officer. In addition to sworn personnel, the SPD requires civilian support staff at a ratio of one for every two sworn officers; this would not result in the need for any additional support personnel.

The City's General Plan Policy PHS 1.1.8 requires that development projects contribute their fair share of funds for police protection services and facilities, and Policy 1.1.7 requires that the project be subject to a development review to address crime and safety design. The Sutter Memorial Hospital site is currently served by SPD, but as discussed above, the proposed project would add additional population to the service area and a 5,000 square foot mixed use area. Because of this, SPD would require full development fees for the proposed project. Compliance with these policies and the subsequent payment of development fees would fund the additional services required for the proposed project as well as contribute to funding for facilities and services that have been identified by the SPD as needed for services in the future. Fee amounts would be determined upon development review and would be enforced per Sacramento City Code Chapter 15.08 prior to the issuance of the proposed project's

[1] The 2008-2013 Housing Element Update indicates the average household size in the City of Sacramento as 2.54 persons per household.

building permits. Payment of fees would ensure compliance with the City's General Plan goals and policies, resulting in a **less-than-significant** impact to police protection and services.

Mitigation Measure

No mitigation is required.

FIRE PROTECTION

5.9.4 ENVIRONMENTAL SETTING

The Sacramento Fire Department (SFD) provides fire protection services to the entire City, including the proposed project site. As shown in Exhibit 5.9-2, Station #8 located at 5990 H Street is the station nearest the project site. Station #8 is located less than one mile from the project site on F Street. The next closest station, Station #4, located at 3145 Granada Way, is approximately two miles away. Station #8 delete is equipped with one engine and one medic and staffed with four and two personnel, respectively. With three shifts per station, this equates to 18 personnel (Tunson 2013).

RESPONSE TIMES

Two major factors are considered when defining response times for fire and emergency medical services (EMS): (1) the critical timeframe that responders have to successfully assist victims of cardiac arrest (chances of surviving a cardiac arrest deteriorate approximately 10 percent for each minute that passes before cardio-pulmonary resuscitation (CPR) and/or defibrillation is initiated); and (2) the critical timeframe that responders have to gain control of a fire, thereby minimizing the impact on the structure and nearby structures. Based on these two critical issues, the Fire Department has a goal to have its first responding company, which provides fire suppression and paramedic services, arrive within a four-minute response time 90 percent of the time and medic units within eight minutes, 90 percent of the time. In the case of a fire, the goal is to have its first responding company arrive within a four-minute response time 90 percent of the time and an additional 10 responders arrive within eight minutes, 90 percent of the time (City of Sacramento 2009a: p. 6.10-14). Locating fire stations according to 1.5-mile radius service areas typically allows responders to arrive on a call within these response time goals. In more densely populated areas and where call volumes are higher and occur simultaneously, a shorter radius is necessary. According to the SFD *Annual Report 2009* Response Performance figure, the response time for the areas near the proposed project site are from two minutes to over four minutes.

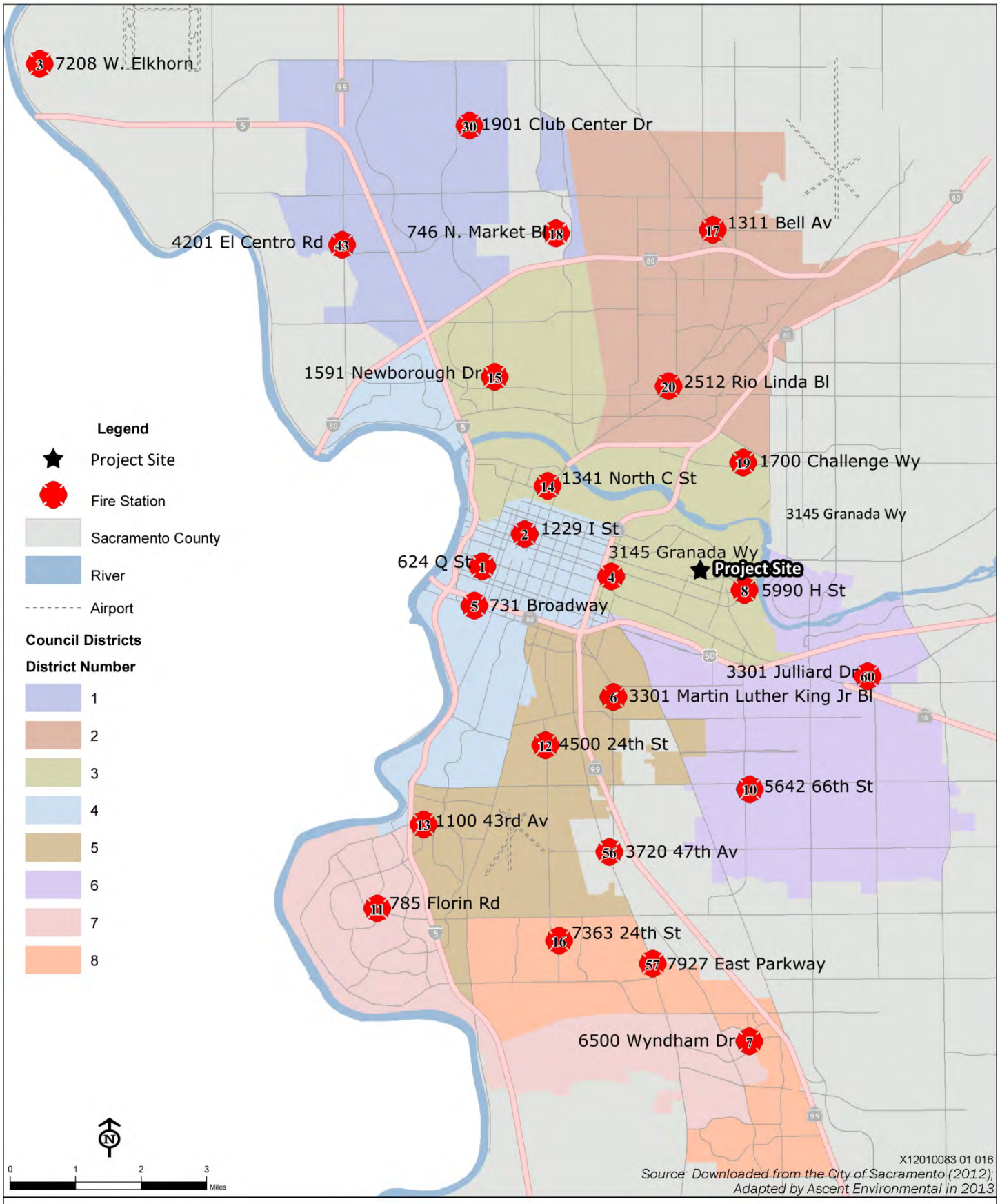

Exhibit 5.9-2 **Sacramento Fire Department Locations**

STAFFING LEVELS

SFD has 24 active fire stations strategically located throughout its service area which consists of 46 fire companies and medic units (24 engine companies, eight truck companies, 13 medic units, and one rescue company). Eight stations house both an engine and a truck company (SFD 2011: p. 4). An engine and truck require a four-person company, and two-person companies are required for each medic unit. The SFD is staffed by 589 firefighters and administrative staff. The front-line operation is organized into three platoons working in 24-hour shifts that are structured into a 48 hours on duty followed by a 96 hours off (48/96) duty pattern, which is a 56- hour work week. Each day the emergency response resources are organized into four battalions, each supervised by a Battalion Chief (SFD 2011: p. 11).

FIRE AND MEDICAL INCIDENTS

During 2011, which is the most recent information available, the Fire Department responded to 71,928 calls for service. Medical calls made up approximately 63 percent of the incidents, with 45,254 calls. Fires represented less than three percent of all calls received by the Department in 2011, with 1,752 calls. The remaining incidents were a combination of calls for hazardous conditions, service, good intent, and false alarms (SFD 2011: p. 11).

The SFD has automatic aid agreements with all the fire departments and fire protection districts that receive dispatch services from the Sacramento Regional Fire/EMS Communications Center (SRFECC). The SRFECC is a Joint Powers Authority comprised of the SFD, Sacramento Metropolitan Fire District, Elk Grove Fire Department, Folsom Fire Department, and Galt Fire Protection District. SFD also has an automatic aid agreement with the City of West Sacramento (Tunson 2013).

DIVISIONS WITHIN THE DEPARTMENT

The SFD is divided into the following three divisions: the Office of the Fire Chief, the Office of Operations, and the Office of Administrative Services. The Office of the Fire Chief provides overall direction and management of the Department including the following: organizing and directing overall operations; advocating for resources; promoting the Department's image; directing city-wide emergency services; and participation in media relations, fiscal services, and community outreach and education. The Office of Operations provides overall direction and management of the emergency response to the community. Firefighters provide quick and effective response to medical emergencies, fires, vehicle crashes, special rescues, hazardous material incidents, disasters, and many other types of emergencies. The Office of Administrative Services provides support functions for the Department including fire prevention, training, technical services, and human resources. This office also oversees facility planning (SFD 2011: p. 6). The Emergency Services Officer coordinates with the City's Office of Emergency Services (OES), which is responsible for disaster planning.

5.9.5 REGULATORY SETTING

FEDERAL

There are no federal regulations that are directly applicable to the proposed project regarding fire protection.

STATE

CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION

In accordance with California Code of Regulations, Title 8 Sections 1270 “Fire Prevention” and 6773 “Fire Protection and Fire Equipment,” the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include, but are not limited to, guidelines on the handling of highly combustible materials, fire hose sizing requirements, restrictions on the use of compressed air, access roads, and the testing, maintenance and use of all firefighting and emergency medical equipment.

UNIFORM FIRE CODE

The Uniform Fire Code (UFC) contains regulations relating to construction, maintenance, and use of buildings. Topics addressed in the code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions intended to protect and assist fire responders, industrial processes, and many other general and specialized fire-safety requirements for new and existing buildings and the surrounding premises. The UFC contains specialized technical regulations related to fire and life safety.

CALIFORNIA HEALTH AND SAFETY CODE

State fire regulations are set forth in Sections 13000 et seq. of the California Health and Safety Code, which includes regulations for building standards (as set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers, smoke alarms, high-rise building, childcare facility standards, and fire suppression training.

LOCAL

SACRAMENTO CITY CODE

The following City ordinances from the Sacramento City Code are applicable to the proposed project:

Section 8.100.540 - All buildings or portions thereof shall be provided with the degree of fire resistive construction as required by the California Building Code for the appropriate occupancy, type of construction and location on property or in fire zone; and shall be provided with the appropriate fire-extinguishing systems or equipment required by the California Building Code.

Chapter 15.36 includes numerous codes relating to the inspection and general enforcement of the City of Sacramento fire code, control of emergency scenes, permits, general provisions for safety, fire department access, equipment, and protection systems, and many standards for fire alarm systems, fire extinguisher systems, commercial cooking operations, combustible materials, heat producing appliances, exit illumination, and emergency plans and procedures.

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to fire protection services within the project area:

Goal PHS 2.1 Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that support the needs of Sacramento residents and businesses and maintains a safe and healthy community.

- **Policy PHS 2.1.1 Fire Master Plan.** The City shall maintain and implement a Fire Department Master Plan to address staffing and facility needs and service goals.
- **Policy PHS 2.1.2 Response Time Standards.** The City shall strive to maintain appropriate emergency response times to provide optimum fire protection and emergency medical services to the community.
- **Policy PHS 2.1.3 Staffing Standards.** The City shall maintain optimum staffing levels for sworn, civilian, and support staff, in order to provide quality fire protection and emergency medical services to the community.
- **Policy PHS 2.1.4 Response Units and Facilities.** The City shall provide additional response units, staffing, and related capital improvements, including constructing new fire stations, as necessary, in areas where a company experiences call volumes exceeding 3,500 in a year to prevent compromising emergency response and ensure optimum service to the community.
- **Policy PHS 2.1.5 Timing of Services.** The City shall ensure that the development of fire facilities and delivery of services keeps pace with development and growth of the city.
- **Policy PHS 2.1.6 Locations of New Stations.** The City shall ensure that new fire station facilities are located strategically throughout the city to provide optimal response times to all areas.
- **Policy PHS 2.1.7 Future Station Locations.** The City shall require developers to set aside land with adequate space for future fire station locations in areas of new development.
- **Policy PHS 2.1.11 Development Fees for Facilities and Services.** The City shall require development projects to contribute fees for fire protection services and facilities.

Goal PHS 2.2 Fire Prevention Programs and Suppression. The City shall deliver fire prevention programs that protect the public through education, adequate inspection of existing development, and incorporation of fire safety features in new development.

- **Policy PHS 2.2.2 Development Review for New Development.** The City shall continue to include the Fire Department in the review of development proposals to ensure projects adequately address safe design and on-site fire protection and comply with applicable fire and building codes.

- **Policy PHS 2.2.3 Fire Sprinkler Systems.** The City shall promote installation of fire sprinkler systems for both commercial and residential use and in structures where sprinkler systems are not currently required by the City Municipal Code or Uniform Fire Code.
- **Policy PHS 2.2.4 Water Supplied for Fire Suppression.** The City shall ensure that adequate water supplies are available for fire-suppression throughout the city, and shall require development to construct all necessary fire suppression infrastructure and equipment.

5.9.6 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Demands for fire service have been determined in consultation with SFD staff. This impact analysis determines whether the proposed project would require the construction or expansion of existing facilities necessary to house additional firefighters required to respond to emergency and fire suppression calls associated with the project. The SFD does not have an official staffing ratio goal. The Department uses a number of measures to determine need for fire protection services, including providing for one station for every 1.5 mile service radius, for every 16,000 population, and/or areas where a company experiences call volumes exceeding 3,500 in a year. Siting fire stations within these criteria generally enable the SFD to respond to emergency calls within its four to six minute response time goal. This analysis will assess whether existing SFD resources would be able to respond to calls for service generated within the project site within four to six minutes based on population served, distance to the nearest station, and input from the SFD.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on fire protection services are considered significant if the proposed project would:

- require, or result in, the construction of new, or the expansion of existing, facilities related to the provision of fire protection.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-2	**Increase the need for fire protection facilities.** The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. This would not result in the need for new or expanded fire protection facilities. In addition, compliance with General Plan Policies PHS 2.1.2, 2.2.4, and 2.2.11 would result in a **less-than-significant** impact.

The proposed project would develop a maximum of 125 single-family dwelling units, which would result in an estimated population of 318, as previously discussed. In addition to residential uses, the proposed project would develop approximately 5,000 square feet of mixed-uses and approximately 1.3 acres of

parks and open space. Based on the fire department's goal ratio of one station for every 16,000 residents, the project would not require the construction of a new facility. Also, Station #8 is located less than one mile from the project site, which is within the 1.5 mile service requirement.

Implementation of the City's General Plan Policy PHS 2.1.11 requires payment of a development impact fee for fire protection facilities and services and Policies PHS 2.2.3 and PHS 2.2.4 require that the project design be subject to review and approval by the SFD to ensure that all proposed project buildings include adequate fire protection equipment and infrastructure, such as fire sprinkler systems, as required by the California Fire Code. The SFD would provide any additions and/or modifications to be incorporated into the proposed fire systems necessary to ensure that the proposed project adequately addresses safe design and on-site fire protection in compliance with applicable fire and building codes, including the California Fire Code. Compliance with the City's General Plan policies is enforced by Sacramento City Code Chapter 15.08, which requires payment of development impact fees, a Fire Department Inspection Fee to offset costs to review plans and supervise installation of, and periodic testing of, State mandated life safety systems, as well as any other fire-related fees, as determined upon development review, prior to the issuance of the proposed project's building permits. Because the proposed project would comply with the Sacramento City Code, impacts related to fire protection would be considered **less than significant**.

Mitigation Measure

No mitigation is required.

EMERGENCY SERVICES

5.9.7 ENVIRONMENTAL SETTING

The City of Sacramento and County of Sacramento both implement programs to facilitate emergency preparedness. Specifically, the City of Sacramento Emergency Operations Plan (April 2005) addresses the City's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations for areas within the City's jurisdictional boundaries. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions, and the private sector. The County of Sacramento has a Multi-Hazard Mitigation Plan (December 2004), which is a multi-jurisdictional plan that aims to reduce or eliminate long-term risk to people or property from natural disasters and their effects that is applicable to the City and areas outside of the City. Both plans provide an overview of operational concepts, identify components of the County's and City's Emergency Management Organization within the Standardized Emergency Management System, and describe the overall responsibilities of the federal, State, and local agencies for protecting life and property and assuring the overall well-being of the population.

City of Sacramento Emergency Operations Plan

The City's emergency plan is applicable to the City's jurisdictional boundaries and describes how City departments will respond to a full spectrum of peace time emergencies (natural disasters) and national defense emergencies, from a minor to a catastrophic emergency. Some emergencies may be preceded by a build-up period that would allow for increased readiness and advance warning to affected areas. Other emergencies may occur with little or no advance warning and require immediate mobilization of City resources. Some emergencies may cause destruction and others may create an exposure hazard. All City departments are prepared to respond promptly and effectively to any foreseeable emergency or request for mutual aid. In all disaster situations, this emergency plan will be implemented in three periods, with related phases as time and circumstances permit.

County of Sacramento Multi-Hazard Mitigation Plan

The Sacramento County Multi-Hazard Mitigation Plan is a multi-jurisdictional plan that includes the County of Sacramento, the City of Sacramento, Citrus Heights, Elk Grove, Folsom, Galt, Isleton, and Ranch Cordova. The plan identifies goals, objectives and measures for hazard mitigation and risk reduction to make communities less vulnerable and more disaster resistant and sustainable. The plan is based on a hazard identification and risk assessment of all the potential natural hazards that could impact Sacramento County. The natural hazards identified and investigated in Sacramento County include: severe weather (heavy rains/storms, tornadoes, fog), flood, dam failure, earthquakes, wildfires, drought, natural health hazards (West Nile Virus), landslides and volcanoes. The Multi-Hazard Mitigation Plan includes a review of the County's current capabilities with regards to reducing hazard impacts and recommended additional action items for the County and its jurisdictions to reduce their vulnerability to potential disasters.

Regional Emergency Operations Center

Day-to-day emergency operations are conducted from departments and offices that are widely dispersed throughout the City of Sacramento. When a major emergency or disaster strikes, centralized emergency management is needed. This facilitates a coordinated response by staff and representatives from departments that are assigned emergency management responsibilities in the City.

An Emergency Operations Center (EOC) provides a county-wide central location of authority and information, and allows for face-to-face coordination among personnel who must make policy level emergency decisions. The Emergency Services Officer is responsible for the readiness state of the primary and alternate EOC locations. Readiness includes adequate communications, staff and team training, EOC support such as logistics, displays, and proper documentation procedures. Generally, the EOC will be activated for situations including an earthquake causing widespread damage; a hazardous material incident; major flooding; or an emergency situation that has occurred or might occur that is of such a magnitude it will require a large commitment of City of Sacramento or Sacramento County resources over an extended period of time to control.

The EOC can be activated and staffed to the extent deemed necessary to deal with the existing or impending emergency. The level of activation necessary, based on the situation, is determined by the Director of Emergency Services or his/her designated alternate. This activation takes place upon consideration of initial damage assessment reports and demand for services. Three levels of activation are described below.

- Level I Disaster - Normal operations: Normal day-to-day emergency operations for which Sacramento resources, as well as mutual aid resources, are adequate to handle the incident. The EOC is not activated.
- Level II Disaster - Partial EOC activation: An incident which involves more than two major City departments and the Incident Commander feels has the potential to escalate into a Level III incident. The Director of Emergency Services selects members of the EOC team to be called. The EOC is activated on a limited basis. Example: Large Hazardous Material Incident or partial/predicted flooding.
- Level III Disaster - Full EOC Activation: A disaster which requires activation of the Emergency Management Team in the City's EOC A disaster requiring policy and coordination to mitigate further loss of life and property. The EOC would be fully activated and all of the EOC positions filled. Example: A major flood causing substantial damage in the community.

Acute Care Facilities

Currently, there are seven private hospitals within the City of Sacramento that serve the region:

- Kaiser Permanente South Sacramento Medical Center (6600 Bruceville Road),
- Mercy General Hospital (4001 J Street),
- Methodist Hospital of Sacramento (7500 Hospital Drive),
- Shriners Hospital for Children – Northern California (2425 Stockton Boulevard),
- UC Davis Medical Center (2315 Stockton Boulevard),
- Sutter General Hospital (2801 L Street), and
- Sutter Memorial Hospital (5151 F Street) (this is the proposed project site).

All of these facilities are designed and equipped to handle multiple, simultaneous patients during everyday activities and emergency situations. Kaiser South has a Level II Trauma Center which opened in 2009 (Kaiser Permanente 2013). The Alex G. Spanos Heart & Vascular Center expansion at Mercy General Hospital is currently under construction and is slated to be open early 2014. The UC Davis Medical Center is the only Level I trauma center in the region.

In June 2000, Sutter Medical Center, Sacramento commissioned an internal planning process that resulted in a decision to consolidate services presently provided by Sutter Memorial Hospital into Sutter Medical Center. It was determined that Sutter Memorial Hospital was non-compliant in several key areas with regard to the requirements of SB 1953 and that the facility could not be cost-effectively renovated to meet current standards. Therefore, the decision was made to close Sutter Memorial

Hospital and create a medical campus around SMCS-owned land including the existing Sutter General Hospital and Buhler Building (Sutter Cancer Center). Sutter Memorial Hospital's services will be consolidated into new, expanded facilities that are currently under construction at 28th and L streets. The 395,241-square-foot, eight story-story Anderson Lucchetti Women's and Children's Center is being built as part of the Sutter Medical Center complex (Sutter Medical Center 2013). (As discussed throughout this document, Sutter Memorial is proposed to be demolished as part of this project.)

5.9.8 REGULATORY SETTING

FEDERAL

FEDERAL EMERGENCY MANAGEMENT AGENCY

In March 2003, FEMA became part of the U.S. Department of Homeland Security. FEMA's continuing mission within the new department is to lead the effort to prepare the nation for all hazards and effectively manage federal response and recovery efforts following any national incident. FEMA also initiates proactive mitigation activities, trains first responders, and manages the National Flood Insurance Program and the U.S. Fire Administration.

Disaster Mitigation Act of 2000

In 2000, the Disaster Mitigation Act was signed into law to amend the Robert T. Stafford Disaster Relief Act of 1988. Among other things, the new legislation reinforces the importance of pre-disaster infrastructure mitigation planning to reduce disaster losses nationwide, and is aimed primarily at the control and streamlining of the administration of federal disaster relief and programs to promote mitigation activities. Some of the major provisions of the Disaster Mitigation Act of 2000 include the following: funding for pre-disaster mitigation activities; developing experimental multi-hazard maps to better understand risk; establishing State and local government infrastructure mitigation planning requirements; defining how states can assume more responsibility in managing the Hazard Mitigation Grant Program; and adjusting ways in which management costs for projects are funded. Mitigation planning provisions are outlined in Section 322 of the Act, which establishes performance based standards for mitigation plans and requires states to have a public assistance program to develop county government plans. The consequence of failure to develop an infrastructure mitigation plan is the chance of a reduced federal share of damage assistance from 75 percent to 25 percent if the damaged facility has been damaged on more than one occasion in the preceding 10-year periods by the same type of event.

STATE

OFFICE OF EMERGENCY SERVICES

Title 19, Chapters 1 through 6, of the California Code of Regulations establishes regulations related to emergency response and preparedness under the OES. The OES serves as the lead State agency for emergency management. The OES coordinates the State response to major emergencies in support of

local government. The primary responsibility for emergency management resides with local government. Local jurisdictions first use their own resources and, as they are exhausted, obtain more from neighboring cities and special districts, the county in which they are located, and other counties throughout the State through the Statewide Mutual Aid System. In California, the Standardized Emergency Management System provides the mechanism by which local government requests assistance. The OES is the lead agency for mobilizing and obtaining State and federal resources, overseeing the mutual aid system, and, during an emergency, coordinating response efforts. In addition, during an emergency, the OES is responsible for collecting, verifying, and evaluating information about the emergency, facilitating communication with local government and providing affected jurisdictions with additional resources when necessary. If necessary, OES may task State agencies to perform work outside their day-to-day and statutory responsibilities.

LOCAL

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to emergency services within the project area:

Goal PHS 4.1 Response to Natural and Human-Made Disasters. Promote public safety through planning, preparedness, and emergency response to natural and human-made disasters.

- **Policy PHS 4.1.1 Multi-Hazard Emergency Plan.** The City shall maintain and implement the Multi-Hazard Emergency Plan to address disasters such as earthquakes, flooding, dam or levee failure, hazardous material spills, epidemics, fires, extreme weather, major transportation accidents, and terrorism.
- **Policy PHS 4.1.2 Post-Disaster Response.** The City shall plan for the continued function of critical facilities following a major seismic or geologic disaster to help prevent major problems during post-disaster response such as evacuations, rescues, large numbers of injuries, and major clean up operations.
- **Policy PHS 4.1.3 Emergency Operations Center.** The City, in conjunction with other local, State, and Federal agencies, shall ensure operational readiness of the Emergency Operations Center (EOC), conduct annual training for staff, and maintain, test, and update equipment to meet current standards.
- **Policy PHS 4.1.4 Emergency and Disaster Preparedness Exercises.** The City shall coordinate with local and regional jurisdictions to perform emergency and disaster preparedness exercises to test operational and emergency plans.
- **Policy PHS 4.1.5 Mutual Aid Agreements.** The City shall continue to participate in mutual aid agreements to ensure adequate resources, facilities, and other support for emergency response.
- **Policy PHS 4.1.6 Education Programs.** The City shall sponsor and support education programs pertaining to emergency response, disaster preparedness protocols and procedures, and disaster risk reduction.

- **Policy PHS 5.1.1 Facilities Location.** The City shall work with the County on identifying adequate sites for health and human services facilities within the city to ensure that such facilities are easily accessible, distributed equitably throughout the city in a manner that makes the best use of existing facilities, and are compatible with adjoining uses.

CITY OF SACRAMENTO MULTI-HAZARD EMERGENCY PLAN

The Emergency Plan addresses the City of Sacramento's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and nuclear defense operations. It provides operational concepts related to various emergency situations, identifies components of the local emergency management organization, and describes the City's overall responsibilities for protecting life and property during an emergency. The plan also identifies possible sources of outside support (through mutual aid and specific statutory authorities) from other jurisdictions and the private sector.

5.9.9 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

There are no standards or ratios for the provision of emergency service personnel and equipment per a specific population. Therefore, the impact analysis qualitatively determines whether implementation of the proposed project would require new or expanded emergency response facilities to provide emergency services, the construction of which could result in physical environmental effects.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on emergency services are considered significant if the proposed project would:

- require, or result in, the construction of new, or the expansion of existing emergency service facilities related to the provision of emergency services.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-3	**Result in the need for expanded emergency facilities.** The proposed project would result in the addition of an estimated 318 additional residents in the area. However, the services of Sutter Memorial Hospital would be consolidated into new facilities at Sutter Medical Center. Also, General Plan policies are in place to ensure that emergency services and response would be provided to serve the anticipated increase in demand. Therefore, this impact would be **less than significant**.

The proposed project would include the demolition of Sutter Memorial Hospital, which is one of the region's seven acute care facilities. The closest acute care facility is Mercy General Hospital, located one mile west of the project site. Sutter Medical Center is approximately two miles west of the project site. Both of these hospitals are currently being expanded. Sutter Memorial Hospital's services would be transferred and consolidated into new, expanded facilities that are currently under construction at Sutter Medical Center.

One of the goals of the proposed project is to connect the existing grid network by extending existing street patterns and selectively introducing new street connections. This would improve vehicular connectivity and emergency access in the area, easing access for existing neighborhood residents and new residents of the proposed project site to either Sutter Medical Center or Mercy General Hospital. Both of these hospitals have emergency rooms to serve the proposed project site.

Development of the proposed project would result in an increase of an estimated 318 residents, as previously discussed. The addition of these new residents would place additional demand on acute care facilities and other medical facilities. However, most hospitals are private or non-profit organizations that are provided independent of City subsidies. Hospitals receive funds from private sources, the State, and/or the federal government. Individual hospital organizations are responsible for the sizing and siting of hospital facilities in compliance with federal and State requirements, which may or may not occur in coordination with local jurisdictions. As a result, individual hospital organizations assess a community's needs for acute care facilities and make decisions on where to locate hospitals. Although an increase in the City's population may result in additional demand on local hospitals, private hospital organizations would be responsible for assessing the medical needs of the City and responding accordingly. Policy PHS 5.1.1 requires that the City coordinate with the County for the siting of health and human services facilities and to ensure that such facilities are located throughout the City. Implementation of these policies would ensure that appropriate human services and medical facilities would be distributed throughout the City.

In the event of a disaster such as a flood, more city residents would need to be evacuated and/or treated. In that case, disaster preparedness and response would need to be optimized. Policies PHS 4.1.1 through PHS 4.1.4 are aimed at ensuring that there is adequate disaster preparedness in the City. The City must maintain the Multi-Hazard Emergency Plan that includes information on disaster preparedness, ensures the operational readiness of the EOC, trains staff and conducts emergency and disaster preparedness exercises to test operational and emergency plans, and sponsors and supports educational programs pertaining to emergency response, disaster preparedness protocols and procedures, and disaster risk reduction. Policy PHS 4.1.5 ensures that the City participate in mutual aid agreements to ensure that adequate resources, facilities, and other support is provided in the event of a disaster.

Policy PHS 5.1.1 would help ensure that adequate human services and medical facilities are established in the City to serve the City population. However, as explained above, private hospital organizations would be responsible for assessing the medical needs of the City and responding accordingly. Policies PHS 4.1.1 through PHS 4.1.5 ensure that disaster preparedness and response

would be adequate to serve the City population. Therefore, because the proposed project would be required to comply with the general plan policies, adequate emergency services and response would be provided to serve the anticipated increase in demand.

Through the implementation of these policies and because the services of Sutter Memorial Hospital would be transferred to another facility, the proposed project would result in a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

SCHOOLS

5.9.10 ENVIRONMENTAL SETTING

Sacramento City Unified School District (SCUSD) is the primary provider of primary and secondary education within the City and would provide school services for the project site. For the 2011-2012 school year SCUSD had an enrollment of 47,900 students in grades K-12, making it the 11th largest school district in the State (SCUSD 2013a). The SCUSD operates 81 schools, including 50 elementary schools, eight K-8 schools, eight middle schools, 13 high schools, and two adult schools (SCUSD 2013b).

The project site would be primarily served by Caleb Greenwood Elementary School, Sutter Middle School, and Hiram Johnson High School. SCUSD has a policy of open enrollment and can provide students with multiple choices for school attendance. Current attendance areas are subject to change to accommodate school overcrowding and changes in facility utilization.

Caleb Greenwood Elementary School serves grades K-8 and is located at 5457 Carlson Drive, northeast of the project site. The school was built in 1950 and has 13 permanent classrooms, a multipurpose room, a library, and an administrative building. The school also has 16 portables (SCUSD 2013c). Sutter Middle School serves grades 7-8 and is located at 3150 I Street, west of the project site. The main campus was built in 1957. This school has 40 permanent classrooms, a multipurpose room, a library, an administrative building and 8 portables (SCUSD 2013d). Hiram Johnson High School serves grades 9-12 and is located at 6879 14th Avenue, south of the project site. The school was built in 1954 and has 82 permanent classrooms, a multipurpose room, a library, an administrative building, and nine portables (SCUSD 2013e).

Table 5.9-2 lists the public schools serving the project site, as well as their enrollment (as of the 2011-12 school year) and capacity for each school.

Table 5.9-2 Public Schools Serving the Project Site			
School Name	Enrollment	Capacity	Remaining Capacity
Caleb Greenwood Elementary School	551	897	346
Sutter Middle School	1,353	1,391	38
Hiram Johnson High School	1,653	2,035	382

Sources: Crystal Hoff, Planning Technician, CAMS, Sacramento City USD. Personal communication, April 24, 2013.
Sacramento City Unified School District, Caleb Greenwood School, 2011-12 School Accountability Report Card. February 2013.
Sacramento City Unified School District, Sutter Middle School, 2011-12 School Accountability Report Card. February 2013.
Sacramento City Unified School District, Hiram Johnson High School, 2011-12 School Accountability Report Card. February 2013.

5.9.11 REGULATORY SETTING

FEDERAL

There are no federal regulations that are directly applicable to the proposed project regarding schools.

STATE

CALIFORNIA STATE ASSEMBLY BILL 2926 – SCHOOL FACILITIES ACT OF 1986

In 1986, AB 2926 was enacted by the state of California authorizing entities to levy statutory fees on new residential and commercial/industrial development to pay for school facilities. AB 2926, entitled the "*School Facilities Act of 1986*," was expanded and revised in 1987 through the passage of AB 1600, which added Section 66000 et seq. of the Government Code.

PROPOSITION 1A/SENATE BILL 50

Proposition 1A/Senate Bill (SB) 50 (Chapter 407, Statues of 1998) is a school construction funding measure that was approved by the voters on the November 3, 1998 ballot. Prior to the passage of Proposition 1A/SB 50 which is summarized below, it was possible for school districts to collect developer fees in accordance with Government Code Section 65995 (often called "statutory fees" or "Stirling fees" after the author of the enabling legislation, AB 2926). The School Facilities Legislation, as it is also referred to, was enacted to generate revenue for school districts for capital acquisitions and improvements.

SB 50 created the School Facility Program through which eligible school districts may obtain State bond funds. State funding requires matching local funds that generally come from developer fees. The passage of SB 50 eliminated the ability of cities and counties to require full mitigation of school impacts and replaced it with the ability for school districts to assess fees directly to offset the costs associated with increasing school capacity as a result of new development. The old "Stirling" fees were incorporated into SB 50 and are referred to as Level 1 fees. Districts meeting certain criteria may collect Level 2 fees as an alternative to Level 1 fees. Level 2 fees are calculated under a formula in SB 50. Level 3 fees are approximately double Level 2 fees and are implemented only when the State Allocation Board is not apportioning State bond funds. The passage of Proposition 1D on November 7,

2006 precludes the implementation of Level 3 fees for the foreseeable future. SB 50 provides that payment of developer fees are “deemed to be complete and full mitigation” of the impacts of new development. SCUSD collects Level 1 fees.

LOCAL

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to fire protection services within the project area:

Goal ERC 1.1 Efficient and Equitable Distribution of Facilities. Provide efficient and equitable distribution of quality educational facilities for life-long learning and development of a highly-skilled workforce that will strengthen Sacramento’s economic prosperity.

- **Policy ERC 1.1.1 School Locations.** The City shall work with school districts at the earliest possible opportunity to provide school sites and facilities that are located in the neighborhoods they serve.
- **Policy ERC 1.1.2 Locational Criteria.** The City shall continue to assist in reserving school sites based on each school district’s criteria and on the City’s following location criteria:
  - Locate elementary schools on sites that are safely and conveniently accessible and away from heavy traffic, excessive noise, and incompatible land uses.
  - Locate school sites centrally with respect to their planned attendance areas.
  - Locate school sites in areas where established and/or planned walkways, bicycle paths, or greenways link school sites with surrounding uses.
  - Locate, plan, and design new schools to be compatible with adjoining uses.

SACRAMENTO UNIFIED SCHOOL DISTRICT SUSTAINABLE FACILITIES MASTER PLAN

The June 2012 SCUSD Sustainable Facilities Master Plan (Plan) replaces the 2006-2015 Facilities Master Plan. The Plan establishes guiding principles that align the strategic plan with facility requirements for each of the grade configurations. The Plan provides an inventory of existing District facilities and explains the goal of the Plan to combine social equity, environmental stewardship, and economic development. In addition to the Executive Summary, a High Performance Facilities Assessment was completed for each school campus. The assessment document evaluates Sustainable Sites, Water Efficiency (plumbing systems), Energy and Atmosphere (mechanical systems), Climate, Materials & Resources (architectural systems), Indoor Air Quality (electrical systems), Leadership, and Education and Innovation.

5.9.12 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Impacts on schools were determined by analyzing the projected increase in demand for schools as a result of development of the proposed project, and comparing the projected increase with the schools' remaining capacities to determine whether new or altered facilities would be required.

STUDENT GENERATION CALCULATIONS

For the school impact analysis, expected student yields were derived using current single-family student generation rates for the elementary, middle, and high school levels (see Table 5.9-3). SCUSD single-family generation rates are 0.44 students per residential unit for grades K-6, 0.12 students per residential unit for grades 7-8, and 0.23 students per residential unit for grades 9-12.

Table 5.9-3 Student Generation

Type of School	Single-Family Generation Rate	Number of Dwelling Units	Number of Students Generated
Elementary (K-6)	0.44	125	55
Middle (7-8)	0.12	125	15
High (9-12)	0.23	125	29

Source: Crystal Hoff, Planning Technician, CAMS, Sacramento City USD. Personal communication, April 24, 2013.

The proposed project would result in construction of a maximum of 125 new single-family residences. An estimated 55 elementary, 15 middle, and 29 high school students – a total of 99 students – would be generated, as shown in Table 5.9-3.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on public school services are considered significant if the proposed project would:

- generate students that would exceed the design capacity of existing or planned schools and would result in the need for new or physically altered school facilities, the construction of which could cause significant environmental impacts.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-4	**Result in the need for expanded school facilities.** The proposed project would develop up to 125 residential units which would result in an estimated 99 new students. The public schools that serve the project site all have sufficient capacity. In addition, compliance with SB 50 would result in a **less-than-significant** impact.

The proposed project would develop a maximum of 125 single-family dwelling units within the project site, which would add school children to the area who would attend SCUSD schools. Based on the estimates and methodologies provided by SCUSD Planning Technician, the proposed project would generate a total of approximately 99 students, including 55 elementary (K-6) school students, 15 middle (7-8) school students, and 29 high (9-12) school students. Current enrollment at Caleb Greenwood Elementary School is 897, enrollment at Sutter Middle School is 1,391, and Hiram Johnson High School has 2,035 students. As shown in Table 5.9-2, all of these schools have remaining capacity, sufficient for the estimated number of students that would be generated by the proposed project.

The project applicant and/or developer(s) would be required to contribute fees towards school facilities funding. Funding for new school construction is provided through State and local revenue sources. Due to the passage of Proposition 1A in November 1998, SB 50 (Chapter 407, Statutes of 1998) was enacted to change the way school districts can levy developer fees. SB 50 resulted in full State preemption of school mitigation. SB 50 enables the district to collect a fee that is equal to the current statutory Level I fees. Where justified, SB 50 allows the district to collect additional fees in an amount that would approximate 50 percent of the cost of additional facilities. The collection of the 50 percent mitigation fees is with the assumption that the State School Facility funding program remains intact and that State funds are still available for partial funding of new school facilities. If the funds are not available, districts may collect up to 100 percent mitigation fees under certain circumstances. Impacts on schools are considered to be less than significant with payment of the State Department of Education Development Fee, which was enacted to provide for school facilities construction, improvements, and expansion. Because the proposed project would be required to pay all applicable fees, the impact would be considered **less than significant**.

Mitigation Measure

No mitigation is required.

LIBRARIES

5.9.13 ENVIRONMENTAL SETTING

The Sacramento Public Library (SPL) is a joint powers agency of the cities of Sacramento, Citrus Heights, Elk Grove, Galt, Isleton, and Rancho Cordova, and the County of Sacramento. The SPL serves residents of both the City and County and operates 28 branches totaling 448,920 gross square feet (SPL 2012).

The main branch of the SPL, also known as the Central Library, is located in downtown Sacramento at 8th and I Streets. It contains nearly 300,000 volumes and more than 1,000 periodical subscriptions. Many special collections are housed at the Central Library, including business, government documents, genealogy, and literature. The Sacramento Room at the Central Library includes special collections on California and Sacramento history, local authors, and the history of the Central Library. The Tsakopoulos Library Galleria, another resource at the Central Library, provides a 5,400 square foot

space available for a variety of events, including weddings, meetings, seminars, parties, receptions, fund raisers, or trade shows. The Galleria also includes two smaller meeting rooms.

Libraries operated by other entities are also located in the City. One such facility is the California State Library in Sacramento, which is operated by the State of California. The State Library operates out of two locations, the Stanley Mosk Library and Courts Building at 9th and Capitol Streets, and the Library and Courts II Building at 9th and N Streets, both in downtown Sacramento. The State Library provides reference services, on-site use of collections, California history information, genealogy resources, Braille and recorded books, a directory of libraries, and internet access (California State Library 2012).

Planned Facilities

The Sacramento Public Library Facility Master Plan (FMP) identifies existing facilities that need to be renovated, relocated, or expanded, or new facilities that need to be built. The recommendations in the FMP are based on facility standards, population projections, and analysis of the age and condition of the existing facilities, combined with a review of site and funding opportunities. The FMP addresses facility needs for the next 20 years.

The Sacramento Public Library FMP 2007-2025 outlined current deficiencies and projected needs through 2025. Within the City of Sacramento, two new libraries – North Natomas and Pocket-Greenhaven – have been constructed and the Valley Hi-North Laguna branch has been relocated. Several projects are planned for 2005-2015 including the renovation of the Central Library and the McClatchy and McKinley Libraries, the relocation of the North Sacramento-Hagginwood Library and the Del Paso Heights Library, the expansion of the Martin Luther King, Jr., and South Natomas Libraries, and the construction of the new 65th and Folsom Library (see Table 5.9-4).

Several funding mechanisms have been identified by the FMP to implement the full Sacramento Public Library FMP. Funding sources include City of Sacramento and Sacramento County general and reserve funds, County Fund 11, development impact fees, statewide library bond funds, general obligation bonds, Mello-Roos Special Tax Bonds, and certificates of participation. In addition, private donations and partnerships will be pursued.

Table 5.9-4 Facilities Master Plan Recommendations in the City of Sacramento

Library	Facility Data			Proposed Improvements			
	Size (sf)	Year Built or Leased	Last Bldg Upgrade	Recommendation	2025 Size (sf)	2007-2015	2015-2025
65th & Folsom				New	30,000	•	
Belle Cooledge	12,000	1991	2010	Complete	12,000		
Central Library - Nbhd	15,000	1918	1991	Renovation	20,000	•	
Colonial Heights	12,211	1989	2011	Complete	12,211		
Del Paso Heights	5,425	1972	2009	Relocation	20,000		•
E.K. McClatchy	2,972	1910	2008	Complete	2,972		

Table 5.9-4 Facilities Master Plan Recommendations in the City of Sacramento

Library	Facility Data			Proposed Improvements			
	Size (sf)	Year Built or Leased	Last Bldg Upgrade	Recommendation	2025 Size (sf)	2007-2015	2015-2025
Martin Luther King, Jr.	15,078	1970	2000	Complete	15,078		
McKinley	4,681	1936	1995	Renovation	4,681	•	
N Sac - Hagginwood	4,000	1987	1987	Relocation	15,000	•	
North Natomas	22,645	2010	2010	Complete	22,645	•	
Robbie Waters Pocket-Greenhaven	15,000	2010	2010	Complete	15,000	•	
South Natomas	13,615	2001	2001	Expansion	20,000		•
Valley Hi-North Laguna	20,505	2001	2009	Complete	20,500	•	
City of Sacramento Total	**143,132**				**210,087**		

Source: Sacramento Public Library, Facilities Master Plan Update 2012, p. 5.

5.9.14 REGULATORY SETTING

FEDERAL

There are no federal regulations that are directly applicable to the proposed project regarding the provisions of libraries.

STATE

There are no State regulations that are directly applicable to the proposed project regarding the provisions of libraries.

LOCAL

CITY OF SACRAMENTO 2030 GENERAL PLAN

The following goals and policies from the 2030 General Plan are relevant to library services within the project area:

Goal ERC 3.1 Adequate Library Facilities. Provide adequate library facilities that enhance Sacramento's quality of life and create a civic environment with vast opportunities for self-learning and cultural and academic enrichment.

- **Policy ERC 3.1.1 Adequate Services and Facilities.** The City shall ensure adequate library services and facilities are maintained for all residents.
- **Policy ERC 3.1.3 Under-Served Areas.** The City shall give priority to the construction of new libraries in communities that are experiencing library service deficiencies including the Pocket area,

East Sacramento near 65th Street and Folsom Boulevard, North Highlands, and the South Area Community Plan area.

- **Policy ERC 3.1.9 Funding.** The City, in conjunction with the Sacramento Library Authority, shall explore methods of financing new library facilities and expanding and upgrading existing facilities.

SACRAMENTO PUBLIC LIBRARY AUTHORITY FACILITIES MASTER PLAN

The Sacramento Public Library Authority Facility Master Plan (FMP) contains the following Guiding Principles designed to support SPL customers:

- libraries recognize the needs of different communities;
- libraries recognize the needs of a diverse population;
- libraries add value to the community;
- libraries are prime real estate;
- libraries are easy for customers to use;
- library space is flexible;
- libraries recognize the value of community partners; and
- library design promotes staff efficiency and effectiveness.

The Sacramento Public Library Authority FMP also contains service standards in a tiered three level approach. The three levels are Threshold, Target, and Prime. The Threshold standard would be used to evaluate current library services available to residents of the specific service area. As individual communities move forward in planning their specific service goals and the facilities required to provide those services, they would select from Threshold, Target, or Prime to tailor their building program.

MEASURE X

In November 2004, Sacramento voters approved Measure X, an initiative to continue a parcel tax that provides 30 percent of the City libraries' operating expenses. The measure levies a $26.60 flat tax per household annually.

5.9.15 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

The provision of adequate library services is based on the Sacramento resident population as compared to the square footage-to-capita rate provided in the Sacramento Public Library Planning Guidelines in the FMP.

- Threshold Level: 0.40 square foot (sf) library facilities per capita
- Target Level: 0.50 sf library facilities per capita

- Prime Level: 0.60 sf library facilities per capita

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on library services are considered significant if the proposed project would:

- require, or result in, the construction of new, or the expansion of existing, facilities related to the provision of library services.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-5	**Result in the need for expanded library facilities.** The proposed project would develop up to 125 residential units which would result in an estimated 318 new residents. The Sacramento Public Library system would have sufficient capacity to serve this increase. In addition, compliance with General Plan Policies ERC 3.1.1, 3.1.3, and 3.1.9 would result in a **less-than-significant** impact.

The proposed project would develop a maximum of 125 single-family dwelling units, which would result in an estimated population of 318, as previously discussed. The closest library to the project site would be the McKinley Library, located at 601 Alhambra Boulevard, approximately two miles away. The McKinley Library is 4,681 square feet, was last updated in 1995 and contains approximately 43,000 volumes. The library is scheduled for renovation in Phase 1 (2007 – 2015) of the FMP 2007-2025.

The threshold for adequate library services is 0.40 sf of library facilities per capita. According to the Sacramento Public Library FMP 2007-2025, the Sacramento Public Library system had a ratio of 0.299 sf per capita in 2007. At that time, the SPL had 27 facilities totaling 379,000 gross square feet. Currently, there are 28 facilities totaling 448,920 gross square feet to serve a population of 1,433,525 (Sacramento County, Demographics and Facts, 2013), for a ratio of 0.31 sf per capita. The FMP Update 2012 calls for 14 additional facilities for a total of 895,105 gross square feet by 2025. At that time, the service area population would be approximately 1,548,000, which would result in a 0.58 sf per capita, which is above the target level.

The proposed general plan policies include measures to accommodate for growth and increased service demands. Policy ERC 3.1.1 requires that adequate library services and facilities are maintained for all residents. Policy ERC 3.1.3 gives library construction priority to areas in the City that are underserved. Policy ERC 3.1.9 ensures that funding methods are explored jointly between the City and Sacramento Public Library Authority.

In November 2004, Sacramento voters approved Measure X, an initiative to continue a parcel tax. The parcel tax provides the library with 30 percent of its operating revenues. The proposed project would be required to participate in the annual Library Fund assessments and residential units in the project area would be subject to Measure X. Although the project would cause an increase in demand for library

facilities in the area, the existing and planned facilities would be adequate to accommodate the increase in demand. Therefore, impacts are considered to be **less than significant**.

Mitigation Measure

No mitigation is required.

RECREATION FACILITIES

5.9.16 ENVIRONMENTAL SETTING

The City of Sacramento Department of Parks and Recreation (Parks Department) maintains more than 3,178 acres of parkland including 1,716 developed acres; manages 222 parks, recreation, parkway, and open space sites, maintains over 88 miles of bike trails, 14 miles of jogging and walking paths within City parks; and operates over 17 aquatic facilities (including swimming pools, play pools, and wading pools), nine dog parks, thirteen skateboard parks, 18 community centers and neighborhood centers (City of Sacramento 2013). The City of Sacramento Parks and Recreation Master Plan (Parks Master Plan) guides park development in the City. The Parks Master Plan identifies 10 community plan areas within the City. The proposed project is primarily within Community Plan Area 6, East Sacramento.

Parks are generally categorized into three distinct park types by the Parks Department: (1) neighborhood, (2) community, and (3) citywide/regional (City of Sacramento 2013a). Neighborhood parks are generally less than ten acres in size and are intended to be used primarily by residents within a half-mile radius. Community parks are generally 10 to 60 acres in size and have a service area of approximately two to three miles, which encompasses several neighborhoods and meets the requirements of a large portion of the City. Citywide/regional parks are larger sites developed with a wide range of improvements to meet the needs of the entire city population. Open space areas are natural areas that are retained to enhance the City's environmental amenities; they are usually found in the larger parks. Parkways are regional amenities that are typically linear and narrow, may be situated along an existing corridor such as an abandoned railroad line, roadway, waterway, or other common corridors and are primarily used as corridors for pedestrians and bicyclists.

PROJECT AREA RECREATIONAL FACILITIES

East Portal Park

East Portal Park is a 7.48-acre neighborhood park located at 1120 Rodeo Way, between Dover Avenue and M Street. The facilities include three picnic areas with barbeques, an adventure play area, tot lot, youth softball field, two bocce courts, a clubhouse, and restrooms.

Henschel Park
Bertha Henschel Park is a 2.54-acre neighborhood park located at 160 45th Street. The facilities include two basketball courts, an adventure play area, tot lot, shade structure, wading pool, bantam soccer field, one picnic area with barbeques, and restrooms.

McKinley Park
McKinley Park is a 31.9-acre community park located at 601 Alhambra Boulevard between H Street and McKinley Boulevard. Facilities include a swimming pool, wading pool, the Clunie Community Center, Shepherd Garden and Arts Center, several large group picnic areas, adventure play area, tot play area, softball field, soccer fields, basketball court, volleyball court, horseshoe pits, tennis courts, jogging trail and restrooms. The park also contains the McKinley Park Rose Garden, a 1.5-acre garden with over 1,000 rose bushes, tree roses, and blooming annuals. This garden is available for weddings (City of Sacramento 2013b).

Proposed Project Recreational Facilities

The proposed project would provide four parks totaling over an acre of park area intended to be used primarily by local residents (see Exhibit 5.9-3). The parks would consist of a Central Park, two Garden Paseos, and two small Pocket Parks. In addition, the Cottage Home area would include a common green and the Residential Mixed-Use area would incorporate a community garden.

CENTRAL PARK
The Central Park would be a central feature of the neighborhood and would be approximately 400 feet long and 70 feet wide. This would create a “signature” street, a central recreation amenity, and social gathering place.

GARDEN PASEOS
The Garden Paseos would connect the outer streets to the Central Park. The intended design is reminiscent of traditional park neighborhood homes that front on a common green. The paseos would provide passage to other areas of the neighborhood as well as incorporate small seating places.

POCKET PARK
Two pocket parks would be located at each end of Parkway B. It would provide a green terminus and focal point and a feature for the cluster of homes at the north end of the project.

COTTAGE GREEN
In addition to the public parks, the site design for the cottage homes would include a common green. The size of the green would be determined during the site design.

COMMUNITY GARDENS
The Sutter Park Neighborhood project would designate an area in which a community garden could be located within the Residential Mixed-Use area.

Source: Received from StoneBridge Properties in 2013; Adapted by Ascent Environmental in 2013

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Exhibit 5.9-3 **Proposed Parks**

5.9.17 REGULATORY SETTING

FEDERAL

There are no federal regulations that are directly applicable to the proposed project regarding recreation facilities.

STATE

STATE PUBLIC PARK PRESERVATION ACT

The primary instrument for protecting and preserving parkland is the State Public Park Preservation Act. Under the Public Resources Code, cities and counties may not acquire any real property that is in use as a public park for any non-park use unless compensation or land, or both, are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

QUIMBY ACT

California Government Code section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedication and fees collected pursuant to the Quimby Act may be used for acquisition, improvement, and expansion of parks, playgrounds, and recreational facilities or the development of recreational areas and facilities on public school grounds which provide a desirable recreation site and immediate access to a public street.

LOCAL

SACRAMENTO CITY CODE

Chapter 12.72 – Park Buildings and Recreational Facilities

The City's Municipal Code includes regulations associated with building and park use, fund raising, permit procedures, and various miscellaneous provisions related to parks. Park use regulations include a list of activities that require permits for organized activities that include groups of 50 or more people for longer than 30 minutes; amplified sound; commercial and business activities; and fund raising activities. This code also includes a list of prohibited uses within parks such as unleashed pets; firearms of any type; and drinking alcoholic beverages, or smoking near children's playground areas. Activities such as golfing, swimming, and horseback riding are only permitted within the appropriate designated areas.

Chapter 16.64 – Parks and Recreational Facilities

Chapter 16.64 of the Municipal Code provides standards and formulas for the dedication of parkland and/or payment of in-lieu fees. These policies help the City acquire new parkland. This chapter sets forth the standard that 5 acres of property for each 1,000 persons residing within the City be devoted to

local recreation and park purposes. Where a recreational or park facility has been designated in the general plan or a specific plan, and is to be located in whole or in part within a proposed subdivision to serve the immediate and future needs of the residents of the subdivision, the subdivider shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. The amount of land to be provided shall be determined pursuant to the appropriate standards and formula contained within the chapter. Under the appropriate circumstances, the subdivider shall, in lieu of dedication of land, pay a fee equal to the value of the land prescribed for dedication to be used for recreational and park facilities which will serve the residents of the area being subdivided.

Chapter 18.44 – Park Development Impact Fee

Chapter 18.44 of the City's Code imposes a park development fee on residential and nonresidential development within the City. Fees collected pursuant to Chapter 18.44 are primarily used to finance the construction of park facilities. The park fees are assessed upon landowners developing property to provide all or a portion of the funds which will be necessary to provide neighborhood or community parks required to meet the needs of and address the impacts caused by the additional persons residing or employed on the property as a result of the development.

City of Sacramento 2030 General Plan

The following goals and policies from the 2030 General Plan are relevant to parks and recreation services within the project area:

Goal ERC 2.1 Integrated Parks and Recreation System. Provide an integrated system of parks, open space areas, and recreational facilities that are safe and connect the diverse communities of Sacramento.

- **Policy ERC 2.1.1 Complete System.** The City shall develop and maintain a complete system of parks and open space areas throughout Sacramento that provide opportunities for both passive and active recreation.
- **Policy ERC 2.1.2 Connected Network.** The City shall connect all parts of Sacramento through integration of recreation and community facilities with other public spaces and rights-of-way (e.g., buffers, medians, bikeways, sidewalks, trails, bridges, and transit routes) that are easily accessible by alternative modes of transportation.

Goal ERC 2.2 Parks, Community and Recreation Facilities and Services. Plan and develop parks, community and recreation facilities, and services that enhance community livability; improve public health and safety; are equitably distributed throughout the city; and are responsive to the needs and interests of residents, employees, and visitors.

- **Policy ERC 2.2.2 Timing of Services.** The City shall ensure that the development of parks and community and recreation facilities and services keeps pace with development and growth within the city.

- **Policy ERC 2.2.3 Service Level Goals.** The City shall develop and maintain parks and recreational facilities in accordance with the goals in Table ERC 1 [Table 5.9-5].

Table 5.9-5 Parks, Community Facility, and Recreation Facility Service Level Goals

Park Types	Acres per 1,000 Residents
Neighborhood Serving: Urban plazas, pocket parks and/or Neighborhood Parks	2.5
Community Serving: Community Parks	2.5
Citywide/Regionally Serving: Regional Parks, Parkways, and/or Open Space	8.0
Linear Parks/Parkways and Trails/Bikeways	0.5 linear miles
Community Facilities	**Number of Units**
Neighborhood Centers (Clubhouses)	1 per neighborhood[1]
Multi-Use Recreation Complexes (including Community Centers)	1 per 30,000 residents
Recreation Facilities	**Number of Units per Resident**
Aquatic Facilities: Play Pool/Water Spray Feature Aquatic Facilities: Outdoor Complex: Swimming and Wading Pool	1 per 15,000 1 per 30,000
Off Leash Dog Parks (Neighborhood/Community)	1 per 60,000
Picnic Areas (Large Group/Class I)	1 per 30,000
Playgrounds: Tot Lots, Adventure Play Areas	1 per 2,500
Skateboard Parks (Neighborhood/Community)	1 per 35,000
Community Gardens	1 per 50,000
Nature Interpretation Centers	2 total[2]
Fields	
Softball, including: Adult, Youth Lighted	1 per 7,500 (total) 1 per 45,000
Baseball, including: Adult, Youth (Little League) Lighted	1 per 7,500 (total) 1 per 45,000
Soccer, including: Bantam, Full Size Lighted	1 per 7,500 (total) 1 per 30,000
Courts	
Volleyball	1 per 10,000
Basketball, including Youth, High School	1 per 5,000
Tennis	1 per 10,000

Notes:
[1] As defined by the service area of all public elementary schools.
[2] One north and one south of the American River.

- **Policy ERC 2.2.4 Meeting Service Level Goals.** The City shall require new residential development to dedicate land, pay in-lieu fees, or otherwise contribute a fair share to the acquisition and development of parks or recreation facilities to meet the service level goals in Table ERC 1 [Table 5.9-5]. For development in urban infill areas were land dedication is not feasible, the City shall explore creative solutions in providing park and recreation facilities that reflect the unique character of the area it serves.

- **Policy ERC 2.2.9 Small Public Places for New Development.** The City shall allow new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public, particularly in infill areas, to help meet recreational demands.
- **Policy ERC 2.2.11 On-Site Facilities.** The City shall promote and provide incentives such as density bonuses or increases in building height for large-scale development projects to provide on-site recreational amenities and gathering places that are available to the public.
- **Policy ERC 2.2.18 Private Commercial Recreational Facilities.** The City shall encourage the development of private commercial recreational facilities to help meet recreational interests of Sacramento's residents, workforce, and visitors.

Goal ERC 2.5 Funding. Secure adequate and reliable funding for the acquisition, development, rehabilitation, programming, and maintenance of parks, community facilities, recreation facilities, trails, parkways, and open space areas.

- **Policy ERC 2.5.4 Capital Funding.** The City shall fund the costs of acquisition and development of City neighborhood and community parks, and community and recreation facilities through land dedication, in lieu fees, and/or development impact fees.

5.9.18 ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Sacramento City Code states that where a recreational or park facility has been designated in the general plan or a specific plan and is to be located in whole or in part within the proposed subdivision to serve the immediate and future needs of the residents of the subdivision, the subdivider shall dedicate land for a local recreation or park facility sufficient in size and topography to serve the residents of the subdivision. According to Sacramento City Code section 16.64.030, a dedication factor of 0.0135 is to be used for single-family dwelling units (Sacramento City Code 2013). This dedication factor was adopted by City council on August 20, 2013 and will become effective on October 20, 2013.

STANDARDS OF SIGNIFICANCE

For the purposes of this EIR, impacts on recreation are considered significant if the proposed project would:

- cause or accelerate a substantial physical deterioration of existing area parks or recreational facilities, or
- create a need for construction or expansion of recreational facilities beyond what was anticipated in the General and/or Community Plans.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.9-6	**Need for expanded recreational facilities.** The proposed project would be required, by City code, to provide 1.68 acres of neighborhood and community park facilities. The proposed project would include 0.7 acres of parkland and pay in-lieu fees, pursuant to the State Quimby Act. Therefore, this impact would be **less than significant**.

The proposed project would involve the construction of up to 125 single-family dwelling units, which would result in an estimated population of 318, as previously discussed. Recreational uses designated for the proposed project include approximately 1.24 acres consisting of a Central Park, two Garden Paseos, and a small Pocket Park. However, per City of Sacramento standards, only the Central Park, 0.7 acres, would qualify as public park facilities under the City Code. One comment received on the NOP addressed the shape and scale of the park. The Central Park would be approximately 400 feet long and 70 feet wide. There are no General Plan policies that dictate the dimensions of public park facilities. If the City's Park Planning and Development Services determines that the proposed parkland is not sufficient, the project applicant would be required by law to pay in-lieu fees, as discussed below.

Based on the parkland dedication requirement of 0.0135 acres per single-family dwelling unit, as enumerated in Sacramento City Code section 16.64.030, the proposed project would be required to provide 1.68 acres of neighborhood and community park facilities. If the proposed project does not meet these requirements, the project applicant would be required by law to pay in-lieu fees, pursuant to the State Quimby Act. General Plan Policy ERC 2.2.4 and Chapter 16.64 of the Sacramento City Code requires that new residential projects either dedicate land, pay in-lieu fees, or otherwise contribute a fair share to the acquisition and development of parks or recreation facilities to meet the service level goals. Therefore, because the project would provide 0.7 acres of park facilities and pay in-lieu fees to meet the park requirements, this impact would be **less than significant**.

Mitigation Measure

No mitigation is required.

CUMULATIVE IMPACTS FOR PUBLIC SERVICES AND RECREATION

IMPACT 5.9-7	**Cumulative effect on public services and recreation.** The proposed project, in combination with other development in East Sacramento, would not cause a substantial adverse change in public services and recreation. The proposed project would comply with all applicable City goals and policies. Therefore, the proposed project **would not contribute to a cumulative effect** on public services and recreation.

The cumulative context for police protection, fire protection, and emergency services is the city of Sacramento, which is the service area for both the City of Sacramento Fire Department and Police Department. Implementation of the proposed project would not contribute to a cumulative impact in

these areas because the project site is already served by these agencies and the project would not increase the service area.

The cumulative context for school demand is based on demand generated in the SCUSD boundaries. The cumulative context for library demand is the Sacramento Public Library service area. The cumulative context for recreation facilities is the city of Sacramento. Implementation of the proposed project would add an estimated 318 residents to the city of Sacramento. Development of the proposed project would generate an incremental increase in demand for schools, libraries, and recreation facilities. As demonstrated in this Draft EIR, the proposed project would comply with all applicable City goals and policies, including payment of development impacts fees to compensate for additional demand. Therefore, the proposed project **would not contribute to a cumulative effect** on schools, libraries, and recreation facilities.

Mitigation Measure 5.9-7

None required.

5.10 UTILITIES AND SERVICE SYSTEMS

This section evaluates the potential effects of the Sutter Park Neighborhood Project on water distribution and supply, wastewater, storm drainage, solid waste disposal, and energy and telecommunications infrastructure.

The Sacramento Regional County Sanitation District responded to the Notice of Preparation with a letter indicating that sewer studies, including points of connection and phasing information, would need to be completed to fully assess the project's potential to increase existing or future flow demands. In addition, the letter stated that all onsite and off-site impacts associated with constructing sanitary sewer facilities to provide service to the project should be included in the environmental impact report. Comments received from residents of the surrounding neighborhood included requests for incorporation of off-site improvements in the project, such as improved drainage and utility undergrounding along existing neighborhood streets, removal of the overhead power lines that follow the rear property lines of the homes on Lagomarsino Way, and replacement of the East Sacramento sewer system to better serve existing and proposed uses. The potential off-site infrastructure effects of the project, including the need for off-site improvements, are discussed in this section. This Draft EIR does not analyze potential improvements to off-site infrastructure related to existing conditions that would not be affected by the project.

5.10.1 POTABLE WATER

ENVIRONMENTAL SETTING

The City of Sacramento's Department of Utilities is responsible for the provision and distribution of water to homes and businesses within the City. The department operates and maintains two water intake and treatment plants and 1,500 miles of pipelines, as well as fire hydrants, valves, and backflow devices. Public water infrastructure exists within the roadways adjoining the project site and currently provides service to the existing Sutter Memorial Hospital. Domestic water is supplied from a combination of surface water and groundwater sources.

The City obtains approximately 85 percent of its potable water from the Sacramento and American Rivers. The E.A. Fairbain Water Treatment Plant on the American River and the Sacramento River Water Treatment Plant on the Sacramento River intake and treat the surface water. The E.A. Fairbain Water Treatment Plant has a permitted capacity of 160 million gallons per day (mgd) and a design capacity of 200 mgd. Hodge Flow criteria could limit the diversion rate to 100 mgd. (Hodge Flow conditions exist when the American River flows are below: 2,000 cubic feet per second [cfs] from October 15 through February; 3,000 cfs from March through June; and 1,750 cfs from July through October 14.) Design capacity of the Sacramento River Water Treatment Plant is 160 mgd; however, due to the conditions of the existing facilities and design constraints, the plant only has a reliable capacity of 135 mgd (City of Sacramento 2011).

The City of Sacramento currently operates 27 municipal groundwater supply wells. The total pumping capacity of the City's municipal supply wells is approximately 21 mgd, assuming 90 percent of the production capacity is available. In 2010, the City pumped approximately 6 billion gallons of water (approximately 17 percent of the total water supply). Groundwater is expected to provide the same portion of overall demand in 2020, for an annual total demand of approximately 7 billion gallons of water (City of Sacramento 2011).

Water is stored in 11 reservoirs throughout the City's water distribution system to meet water demand during periods when peak hour demand exceeds maximum daily supply rates. These high demand periods usually occur for four to six hours during hot summer days, although longer periods of high demand can occur during large fire events. With the exception of the Florin Reservoir, which has a capacity of 15 million gallons, each reservoir has a 3 million gallon capacity. In addition to the reservoirs, the treatment plants together maintain an on-site storage of over 32 million gallons.

The City of Sacramento Community Development Department's population estimates for 2030 and 2050 were used to estimate future water demand in the City's 2010 Urban Water Management Plan. The City's population is expected to increase from 466,488 to 553,724 people between 2010 and 2020. Annual water demand is anticipated to increase from 35 to 45 billion gallons during this same period. According to the *2010 Urban Water Management Plan*, the City has sufficient water supply entitlements to meet projected water demands during various hydrologic conditions to the year 2035 (City of Sacramento 2011).

Based on annualized 2012/2013 data supplied by Sutter Memorial Hospital, the project site currently uses approximately 39.7 million gallons of water annually. There are existing waterlines along the northern and southern boundaries of the project site and in roadways that intersect the project site. These include 10-inch water distribution mains in 51st and D streets, an 8-inch distribution main along the northern boundary west of D Street, a 10-inch water distribution main along the northern boundary east of 51st Street, and an 8-inch water distribution main along 53st at the southeastern corner of the project site.

REGULATORY SETTING

FEDERAL

Clean Water Act

The US Environmental Protection Agency established primary drinking water standards in Section 304 of the Clean Water Act. States are required to ensure that the public's potable water meets these standards

STATE

California Environmental Quality Act

Under Section 15155 of the California Environmental Quality Act, (California Water Code Sections 10910 et seq.), a water supply assessment is required for large projects and must include a discussion

with regard to whether the total projected water supplies are available during normal, single dry, and multiple dry water years during a 20-year projection. A project meets the requirement for preparation of a water supply assessment if it includes any of the following development thresholds:

- contains more than 500 dwelling units;
- proposes a shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- proposes an office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- proposes a hotel or motel, or both, having more than 500 rooms;
- proposes industrial uses planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- a mixed use project that includes one or more of the projects specified above; or
- a project that would create water demands equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

Water Analysis Legislation

Government Code Section 66473.7 requires an affirmative written verification of sufficient water supply prior to approval of a tentative map for proposed residential developments of over 500 units that would be served by public water systems with over 5,000 service connections. This verification, like the water supply assessment required under California Environmental Quality Act (Section 15155), must include documentation of historical water deliveries for the previous 20 years, as well as a description of reasonably foreseeable impacts of the proposed subdivision on the availability of water resources of the region.

Protection of Underground Infrastructure

California Government Code, Section 4216, requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installation. The notification center alerts the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is then required to probe and expose the underground facilities by hand prior to using power equipment.

LOCAL

City of Sacramento 2030 General Plan

General Plan policies related to water supply and treatment that may pertain to the Sutter Park Neighborhood Project include the following:

- **Policy U 1.1.1 Provision of Adequate Utilities.** The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the City currently receiving these services from the City, and shall provide and maintain adequate water, wastewater,

and stormwater drainage utility services to areas in the City that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide these City services.

- **Policy U 1.1.6 Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
- **Policy U 2.1.3 Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.
- **Policy U 2.1.9 New Development.** The City shall ensure that water supply capacity is in place prior to granting building permits for new development.

East Sacramento Community Plan

There are no applicable water supply policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

As discussed above, the estimate of existing water demand is based on annualized 2012/2013 data supplied by Sutter Memorial Hospital. The estimated water demand as a result of project operation is based on typical ratios from the City of Sacramento, such as gallons per day for single-family dwellings and approximated average water use for commercial space. The analysis compares the estimated project demand with the existing demand. As indicated in Section 5.0, “Introduction to the Analysis,” existing water demand is the baseline against which the project is analyzed herein. Although the existing hospital demand would be largely transferred to the expanded Sutter Medical Center upon completion of the Women’s and Children’s Center, the environmental impact report for that project analyzed this shift in consumption.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to water services would be considered significant if the project would:

- increase demand for potable water in excess of existing supplies;
- result in inadequate capacity in the City’s water supply facilities to meet the water supply demand, so as to require the construction of new water supply facilities; or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-1	**Increase demand for potable water in excess of existing supplies.** The Sutter Park Neighborhood Project is anticipated to require considerably less potable water than existing uses on the project site. This impact would be **less than significant**.

During the demolition of existing hospital buildings, the demolition contractor would use a metered City water source for application of dust control measures while removing existing hospital structures. Water would also be used for dust abatement and fire control during construction. The precise quantity of water required for these activities has not been determined. However, the annualized water demand during project demolition and construction is anticipated to be less than current site demand based on site acreage. In accordance with City of Sacramento Title 15 (Building and Construction), Chapter 15, the permitted construction contractor will be required to obtain any necessary permits for water from the manager of the Division.

The project site currently consists of the Sutter Memorial Hospital and related offices and facilities. The existing hospital uses approximately 39,658,000 gallons of water per year. As described in Chapter 3, “Project Description,” the proposed project could include up to 125 residential units and up to 5,000 square feet of residential mixed use. The City of Sacramento assumes that single family residences use an average of 400 gallons of water daily (146,000 gallons annually). Therefore, the residential aspect of the project would result in an annual water demand of approximately 18,250,000 gallons of water. Based on an estimation of 0.2 gallons of daily water demand per square foot of commercial space, the mixed use parcel could add approximately 365,000 gallons of water demand annually (AWWA 2000). Combined, these uses could result in a reduction in annual water demand of over 21 million gallons, which would be a substantial reduction in water demand when compared to existing use. The proposed project would include up to 125 residential units, which is below the 500 unit threshold for projects requiring water supply assessments (per CEQA Section 15155) and water provision verifications. The water demand associated with construction and operation is would result in a **less-than-significant** impact on water supplies.

Mitigation Measure

No mitigation is required.

IMPACT 5.10-2	**Require construction of new water supply facilities because of inadequate capacity to serve the project.** The proposed project is anticipated to reduce overall water demand for the site; therefore, there would not be a lack of capacity in the City’s water supply facilities that would necessitate the construction of new water supply facilities. There would be **no impact** to the City’s water supply capacity.

The Sutter Memorial Hospital site is currently served by the City of Sacramento’s water treatment and distribution system. The Sutter Park Neighborhood Project would decrease water demand by over 21 million gallons annually. Based on the analysis above (Impact 5.10-1), there would be a decrease in

demand on the City's existing water treatment plant and no need to distribute larger volumes of water to the site. Therefore, there would not be a lack of capacity in the City's water supply facilities that would necessitate the construction of new facilities as a result of project development. As such, there would be **no impact** to water supply facilities.

Mitigation Measure

No mitigation is required.

IMPACT 5.10-3	**Require the expansion of existing water utilities.** The proposed project would not require new off-site utilities. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report and would have a **less-than-significant** environmental impact.

The proposed project would include the removal of existing water infrastructure on the project site during demolition. A utilities policy, which would detail the methods used to remove onsite utilities, would be included in the safety assessment conducted prior to demolition. Underground utility removal would take place after demolition of above grade buildings, slab on-grade foundations, below-grade footings and foundations, and asphalt and concrete removal (see Chapter 3, Project Description). Designated underground utilities would be removed on the project site up to the property line and capped for re-use during new construction. Excavators would be used to remove the piping.

The Sutter Park Neighborhood Project would use existing public water infrastructure that is within the roadways adjoining the project site and currently provides service to the existing hospital facility. These facilities would be adequate to serve the reduced demand associated with the project (Joyce 2013). New utility infrastructure would be routed within the new roadway network. Planned utilities include water lines in every street. Water mains would be a minimum of 8-inches and connect to existing City of Sacramento water mains at: 51st Street and D Street (proposed); E Street and A Street (proposed); 51st Street, F Street, and Parkway B (proposed), and F Street and D Street (proposed) (see Exhibit 3-8, Proposed Utilities). The project would not require new off-site utilities, and this would be a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

5.10.2 SEWER AND WASTEWATER TREATMENT

ENVIRONMENTAL SETTING

The City of Sacramento has two wastewater disposal systems, a combined sewer system (which serves the central portion of the City) and a separated sewer system (which generally serves the periphery). The project site discharges wastewater into the combined sewer system, which

accommodates both sewage and stormwater, but does not dispose its stormwater to this system (see the storm drainage discussion below).

The combined sewer system conveys sewage via two pump stations, Pump Station 1/1A and Pump Station 2/2A, located west of the site near the Sacramento River. Pump Station 2/2A is the primary pump station for the combined sewer system, and is operated continuously throughout the year (City of Sacramento 2011). Because the system also accommodates stormwater conveyance, which varies seasonally, the conveyance capacity of the combined sewer system may be exceeded during periods of particularly wet weather. The combined sewer system has a history of localized flooding in the area (Joyce 2013).

The City has an agreement to convey up to 60 mgd from the combined sewer system to the Sacramento Regional Wastewater Treatment Plant (SRWTP). The SRWTP is a high purity oxygen-activated sludge facility that currently provides advanced secondary treatment, and is permitted to treat an average dry weather flow (ADWF) of 181 mgd and a daily peak wet weather flow of 392 mgd. As of its most recent discharge permit (2010), the facility's ADWF was approximately 140 mgd, which is less than its peak usage of 154 mgd, which occurred around 2000. Given these reduced flows, SRCSD expects its 181 mgd ADWF capacity to be sufficient for the next 40+ years. However, the plant is planning to upgrade its treatment process to meet the most recent permit requirements.

During heavy storms, the Combined Wastewater Treatment Plant at South Land Park Drive and 35th Avenue is used to provide primary treatment of an additional 130 mgd. Excess flows beyond 190 mgd are diverted to the Pioneer Reservoir storage and treatment facility, which has a capacity of 350 mgd. When all three treatment facilities have reached capacity, excess flows are directly discharged into the Sacramento River without treatment. This is a rare event, and only happens during intense storms when the river also is running at a very high flow level.

It is estimated that most of the water consumed on the hospital site under existing operations is discharged to the combined sewer system (Joyce 2013). The remaining water is consumed by hospital processes, such as cooling towers, or used for landscape irrigation and lost to evapotranspiration, infiltration, or the storm drain system. The combined sewer system in the project area includes 15-inch sanitary sewer lines in D Street, 8-inch sewer lines along portions of the northern boundary of the project site, a 15-inch sewer line in Lagomarsimo Way east of the project site, and a 14-inch sewer line along 53rd Street.

REGULATORY SETTING

FEDERAL

There are no applicable federal sewer or wastewater regulations.

STATE

Protection of Underground Infrastructure

California Government Code, Section 4216, requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installation. The notification center alerts the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is then required to probe and expose the underground facilities by hand prior to using power equipment.

LOCAL

Sacramento City Code

Sacramento City Code, Chapter 13.08, outlines the requirements for permitted discharges to the sewer service system. Article V of the chapter establishes charges and fees for customers receiving sewer service and storm service from the City. Title 15 includes regulations related to proper maintenance of construction sites. These include ponding gutters to remove mud and other materials before they enter any public sewer.

City of Sacramento 2030 General Plan

General Plan policies that may pertain to the Sutter Park Neighborhood Project include the following:

- **Policy U 1.1.1 Provision of Adequate Utilities.** The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the City currently receiving these services from the City, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the City that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide these City services.
- **Policy U 1.1.6 Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
- **Policy U 2.1.3 Water Treatment Capacity and Infrastructure.** The City shall plan, secure funding for, and procure sufficient water treatment capacity and infrastructure to meet projected water demands.

East Sacramento Community Plan

There are no applicable sewer or wastewater policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

As discussed above, the City of Sacramento conservatively assumes that 100 percent of the water that would be supplied to the proposed project would be discharged into the sewer system (Joyce 2013). The estimate of existing water demand is based on annualized 2012/2013 data supplied by Sutter Memorial Hospital. As indicated in Chapter 5, "Introduction to the Analysis," existing wastewater discharge is the baseline against which the project is analyzed herein.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to sewer and wastewater services would be considered significant if the project would:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments; or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-4	**Result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments.** The project would generate less wastewater than existing uses on the site, resulting in reduced demand for wastewater treatment. There would be **no impact** to existing wastewater treatment capacity.

The Sutter Park Neighborhood Project would decrease water demand, and subsequently wastewater discharge, by over 21 million gallons annually. The volume of wastewater that would be delivered to, and require treatment from the City's existing wastewater treatment plant would similarly decrease. In addition, the project would convey lower volumes of wastewater in the existing infrastructure from the site. Therefore, there would be **no impact** to existing wastewater treatment capacity.

Mitigation Measure

No mitigation is required.

IMPACT 5.10-5	**Require or result in either the construction of new utilities or the expansion of existing wastewater utilities, the construction of which could cause significant environmental effects.** The City of Sacramento Department of Utilities has reviewed the project and determined that off-site aspects of the combined sewer system have adequate capacity to serve the development. The proposed project would not require new off-site utilities. Design of onsite aspects of the systems would be approved by the City prior to recordation of a final subdivision map. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report and would have a **less-than-significant** environmental impact.

The proposed project would include the removal of the existing, onsite combined sewer system and construction of new sewer mains. A utilities policy, which would detail the methods used to remove onsite utilities, would be included in the safety assessment conducted prior to demolition. Underground utility removals would take place after demolition of above grade buildings, slab on-grade foundations, below-grade footings and foundations, and asphalt and concrete removal. Designated underground utilities would be removed back to the property line and capped for re-use during new construction. Excavators would be used to remove the piping.

The Sutter Park Neighborhood Project is expected to consume, and dispose of, nearly half as much water as the existing Sutter Memorial Hospital (see impact 5.10-1). The City of Sacramento has determined that the combined sewer system would have capacity to serve the Sutter Park Neighborhood, based on the anticipated reduction in discharge that would be expected given the reduction in water demand. The potential for off-site flooding and overburden of the system would remain, but the proposed project would not exacerbate the problem (Joyce 2013). To verify that the onsite sewer system would be adequate to serve the project, the City of Sacramento Department of Utilities would require that the applicant complete, and submit to the City for review and approval, a sewer study that shows the details of the proposed system. This study must be approved by the City prior to recordation of a final subdivision map for the project site (Joyce 2013). The Sutter Park Neighborhood Project would use existing sewer infrastructure that is within the roadways adjoining the project site and currently provides service to the existing hospital facility. New utility infrastructure would be routed within the new roadway network. Planned utilities include 8-inch sewer lines in every street (see Exhibit 3-8, Proposed Utilities).

The project would not require new off-site utilities or improvements to the existing infrastructure. Because the project would reduce discharge to the combined sewer system, it is anticipated that the off-site aspects of these systems would have adequate capacity to serve the development. Furthermore, the City of Sacramento's requirements that the applicant submit sewer plans for the site prior to recordation of a final subdivision map would result in onsite systems capable of conveying projected loads. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report. Therefore, the demand for sewer conveyance as a result of the Sutter Park Neighborhood Project would have a **less-than-significant** impact related to the construction or expansion of wastewater utilities.

Mitigation Measure

No mitigation is required.

5.10.3 STORM DRAINAGE

ENVIRONMENTAL SETTING

Storm drainage infrastructure exists within the roadways adjoining the project site and currently provides services to the existing Sutter Memorial Hospital. (As noted above, the site discharges wastewater to the combined sewer system, but utilizes a separate storm drain system.) The City of Sacramento Department of Utilities maintains the City's drainage system, which includes 41,000 drain inlets, hundreds of miles of pipe, 65 miles of canals and ditches, over a hundred pump stations, and detention basins.

The project site is currently developed with the hospital building and associated facilities, driveways and roadways, and parking lots. The hardscape is broken up by scattered small manicured lawns and landscaping adjacent to buildings, pathways, and parking lots. There is a landscaped frontage on F Street. In total, approximately 10 percent of the site is landscaped, pervious surface. Under existing conditions at the Sutter Memorial Hospital site, landscape irrigation and runoff from impervious surfaces during rain events are channeled into the City's drainage system. The existing storm drain system in the project vicinity includes a 24-inch storm drain following D Street, a 30-inch storm drain between D and 51st streets at the northern project boundary, a 12-inch storm drain in 51st Street south of the project site, and a 30-inch storm drain in F Street parallel to the southern boundary of the project site. In addition, there is an existing 48-inch diameter public storm drain line that follows the site boundary at the northeast corner of the property. There is a 20-foot easement associated with this storm drain alignment.

REGULATORY SETTING

FEDERAL

Clean Water Act

Section 402 of the Clean Water Act creates the National Pollutant Discharge Elimination System regulatory program. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes the US Environmental Protection Agency, a Tribe, or a territory). National Pollutant Discharge Elimination System permits cover industrial and municipal discharges, discharges from storm sewer systems in larger cities, storm water associated with numerous kinds of industrial activity, runoff from construction sites disturbing more than 1 acre, mining operations, and animal feedlots and aquaculture facilities above certain thresholds.

STATE

Protection of Underground Infrastructure

California Government Code, Section 4216, requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installation. The notification center alerts the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is then required to probe and expose the underground facilities by hand prior to using power equipment.

LOCAL

Sacramento City Code

Article V of Chapter 13.08 establishes charges and fees for customers receiving sewer service and storm service from the City. Title 15 includes regulations related to proper maintenance of construction sites. These include ponding gutters to remove mud and other materials before they enter any public sewer.

City of Sacramento's Design and Procedures Manual

The Design Procedures Manual sets forth the maximum allowable 10 and 100 year design water surface elevations for development and system upgrades. These specific standards have been developed to support the goal that all existing affected drainage systems function as well, or better, as a result of the proposed construction, and that there is no increase in flooding or in water surface elevation with negative impacts to individuals, streets, structures, infrastructure, or property. Under no circumstances shall proposed infill drainage systems result in increased flooding that does harm to the system.

City of Sacramento 2030 General Plan

General Plan policies that may pertain to the Sutter Park Neighborhood Project include the following:

- **Policy U 1.1.1 Provision of Adequate Utilities.** The City shall continue to provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the City currently receiving these services from the City, and shall provide and maintain adequate water, wastewater, and stormwater drainage utility services to areas in the City that do not currently receive these City services upon funding and construction of the infrastructure necessary to provide these City services.
- **Policy U 1.1.6 Growth and Level of Service.** The City shall require new development to provide adequate facilities or pay its fair share of the cost for facilities needed to provide services to accommodate growth without adversely impacting current service levels.
- **Policy U 1.1.10 Safe, Attractive, and Compatible Utility Designs.** The City shall ensure that public utility facilities are designed to be safe, aesthetically pleasing, and compatible with adjacent uses.

- **Policy U 4.1.1 Adequate Drainage Facilities.** The City shall ensure that all new drainage facilities are adequately sized and constructed to accommodate stormwater runoff in urbanized areas.

East Sacramento Community Plan

There are no applicable stormwater policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

No data on existing stormwater drainage is maintained by the City of Sacramento. The volume of water discharged into storm drains is dependent on climate, the quantity of pervious surfaces that allow for stormwater infiltration rather than runoff, and the addition of excess irrigation water into the system. To approximate the potential for a larger volume of stormwater to be associated with storm events after development of the proposed project, the proportion of the site that would be pervious, allowing for natural infiltration and attenuation of stormwater runoff, is compared under existing and proposed conditions. This analysis assumes water efficient irrigation practices under current and proposed conditions.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to utility services would be considered significant if the project would:

- result in the determination that adequate capacity is not available to serve the project's demand in addition to existing commitments; or
- require or result in either the construction of new utilities or the expansion of existing utilities, the construction of which could cause significant environmental impacts.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-6	**Result in the determination that adequate capacity is not available to serve the project's demand for stormwater conveyance or require the expansion of existing stormwater utilities.** The City of Sacramento Department of Utilities has reviewed the project and determined that the existing storm drainage system has adequate capacity to serve the project development. Design of onsite aspects of the systems would be approved by the City prior to recordation of a final subdivision map. Therefore, this impact would be **less than significant**.

A utilities policy, which would detail the methods used to remove onsite utilities, would be included in the safety assessment conducted prior to demolition. Underground utility removals would take place after demolition of above grade buildings, slab on-grade foundations, below-grade footings and foundations, and asphalt and concrete removal. Designated underground utilities would be removed

back to the property line and capped for re-use during new construction. Excavators would be used to remove the piping.

The Sutter Park Neighborhood Project would use existing storm drainage utility infrastructure that is within the roadways adjoining the project site and currently provides service to the existing hospital facility. New utility infrastructure would be routed within the new roadway network. Planned utilities include a centralized 18-inch storm drain. The 48-inch public storm drain that is located in an easement along the northeastern corner of the project site would be relocated to avoid conflicts with residential parcels. The new easement would transect the northeast corner of the project site east of the planned cottage homes (see Exhibit 3-8, Proposed Utilities). The proposed project would not require new off-site utilities. Removal and construction of onsite utilities is included as a project element analyzed in this environmental impact report.

With the exception of the F Street frontage and limited landscaping, the project site is currently almost entirely developed with buildings and paved surfaces. The Sutter Park Neighborhood Project would include approximately 1.4 acres (7 percent of the total site) that would be dedicated to park and open space, which would consist of landscaped, pervious area. In addition, each residential lot would include a landscaped component. Landscaped areas would allow for infiltration of storm water. The quantity of runoff from the site that would be conveyed to the storm drain system is expected to be similar to, or less than, existing conditions based on the relative acreage of impervious surfaces (e.g., parking areas, roads, and buildings) under existing and proposed conditions.

A storm drainage study must be submitted to the City prior to completing a master parcel map or final subdivision map. The master plan must include sufficient information to determine the right-of-way requirements for proposed drainage facilities, as well as the hydrology, hydraulics, pumping requirement, and detention storage information. Storm drains would meet the requirements of the City of Sacramento's Design and Procedures Manual, Section 11 – Storm Drainage Design Standards. These specific standards have been developed to support the goal that all existing affected drainage systems function as well, or better, as a result of the proposed construction, and that there is no increase in flooding or in water surface elevation with negative impacts to individuals, streets, structures, infrastructure, or property.

Because discharge to the storm drain system is expected to be similar to, or less than, existing conditions, it is anticipated that the system would have adequate capacity to serve the development. Furthermore, the City of Sacramento's requirement that the applicant submit drainage plans for the site prior to recordation of a final subdivision map would result in onsite systems capable of conveying projected loads. Therefore, the demand for stormwater conveyance as a result of the Sutter Park Neighborhood Project would have a **less-than-significant** impact.

Mitigation Measure

No mitigation is required.

5.10.4 SOLID WASTE DISPOSAL

ENVIRONMENTAL SETTING

The City of Sacramento collects all residential solid waste within the City. Refuse is transported to the Sacramento Recycling and Transfer Station on Fruitridge Road and then to the Lockwood Landfill in Sparks, Nevada (City of Sacramento 2005). In addition to collecting municipal refuse every week, the City collects garden refuse on a weekly basis, curb-side recycling every other week, and runs a neighborhood cleanup program annually. Approximately 50 percent of the waste generated in the City is diverted from landfills.

Lockwood Regional Landfill is a Class I and III landfill that is permitted to accept municipal solid waste, waste tires, and construction and demolition (C&D) waste. The combined disposal capacity of the landfill site is 264.68 million cubic yards (NDEP 2013a). On average, the Lockwood Regional Landfill receives 5,000 tons of waste each day (NDEP 2013b). Based on projected volumes, Lockwood Regional Landfill has enough remaining capacity to continue operation for 24.3 years. In addition, over 2,000 acres at the facility are already zoned for future expansion (Carr 2011).

Commercial solid waste is collected by private, franchised haulers and disposed of at various facilities - including the Sacramento County Keifer Landfill, the Yolo County Landfill, L & D Landfill, Florin Perkins Landfill, and private transfer stations (City of Sacramento 2005). Hospital waste requires categorization and specialized disposal. Waste disposal services are currently provided to the Sutter Memorial Hospital site by Stericycle, Atlas Disposal, and Republic Services (formerly Allied Waste Services). Stericycle provides hazardous waste management and biohazard waste disposal services. Atlas Disposal and Republic Services provide solid waste and recycling removal services. Waste from the Sutter Memorial Hospital site is most likely transferred to the L & D Landfill (8635 Fruitridge Road, Sacramento), which accepts mixed construction debris and green waste. Approximately 50 to 70 percent of C&D material and all green waste is recycled at this facility. Also serving the project area, Teichert Aggregates (8760 Kiefer Boulevard, Sacramento) conducts asphalt recycling, and Sims Metal (130 North 12th Street, Sacramento) conducts metal recycling.

Medical waste, a broad category encompassing several types of waste generated at hospitals, includes pharmaceutical, pathological, and chemotherapy waste (although bulk amounts of chemotherapy waste are categorized as hazardous waste). Facilities that generate more than 200 pounds of medical waste per month must also sterilize or incinerate their medical waste. Sutter Memorial Hospital generates approximately 580 pounds of medical waste per month, and is required to follow decontamination procedures (EIP Associates 2005). If medical waste is autoclaved, it may be landfilled at a regular Class III landfill, such as Keifer Landfill. Medical waste that is not autoclaved may be disposed of at either a Class I or a Class II landfill. Republic Services currently transports approximately 650 tons of standard solid waste from the Sutter Memorial Hospital campus annually.

REGULATORY SETTING

FEDERAL

There are no applicable federal solid waste regulations.

STATE

Integrated Waste Management Act

The Integrated Waste Management Act mandates a reduction of waste being disposed and establishes an integrated framework for program implementation, solid waste planning, and solid waste facility and landfill compliance. The California Department of Resources Recycling and Recovery oversees a disposal reporting system, and facility and program planning.

LOCAL

City of Sacramento Construction and Demolition Debris Recycling Ordinance

On March 1, 2009, the City adopted a Construction and Demolition Debris Recycling Ordinance. The ordinance applies to all building permits over $250,000 in value. Applicable projects must recycle 50 percent of all generated debris.

City of Sacramento 2030 General Plan

General Plan policies that may pertain to the Sutter Park Neighborhood Project include the following:

- **Policy U 5.1.1 Zero Waste.** The City shall achieve zero waste to landfills by 2040 through reusing, reducing, and recycling solid waste; and using conversion technology if appropriate.
- **Policy U 5.1.3 Transfer Stations.** The City shall provide for adequate transfer station facilities to meet the City's demand.
- **Policy U 5.1.5 Residential and Commercial Waste Disposal.** The City shall continue to provide curbside trash and recycling collection service to single-family residential dwellings and offer collection service to commercial and multi-family residential development.
- **Policy U 5.1.6 Yard Waste and Street Sweeping.** The City shall continue to provide garden refuse yard waste collection service to single-family residential dwellings and provide street sweeping service to commercial and residential development.
- **Policy U 5.1.16 Recycling and Reuse of Construction Wastes.** The City shall require recycling and reuse of construction wastes, including recycling materials generated by the demolition and remodeling of buildings, with the objective of diverting 85 percent to a certified recycling processor.

East Sacramento Community Plan

There are no applicable solid waste policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Demolition and Construction

Waste generated by C&D activities was estimated by Cleveland Wrecking Company in the March 2013 *Conceptual Demolition Work Plan for Sutter Memorial Hospital* based on site observations and data from previous hospital demolition projects. It is assumed that the contractor would divert 50 percent of C&D waste from landfills by reusing or recycling in compliance with the City of Sacramento C&D Ordinance. Although several area landfills have been identified in the preceding discussion, the landfills to which material from construction of the project would be sent have not yet been determined. Each landfill has specific requirements regarding the acceptance of hazardous wastes and C&D materials that may influence the selection of disposal sites.

Operation

Current solid waste disposal rates for the existing hospital were obtained from Sutter Memorial Hospital. The expected demand for waste removal services as a result of project operation was estimated from a standard residential solid waste generation rate. The *City of Los Angeles CEQA Thresholds Guide* was obtained through the CalRecycle website and used as the source of the residential waste generation factor because the City of Sacramento has not published a similar generation rate. Estimated solid waste generation and disposal rates for the commercial sector published on the CalRecycle website vary considerably. The generation rate for “shopping center” from Santa Barbara County’s Guide to Solid Waste and Recycling Plans for Development Projects was used to approximate the demand of the proposed mixed residential parcel.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to solid waste services would be considered significant if the project would:

- require or result in either the construction of new solid waste facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-7	**Environmental impacts from new or expanded solid waste facilities.** Project demolition, construction, and operation would not produce solid waste in excess of the capacity at existing solid waste facilities serving the project site. This impact would be **less than significant**.

Demolition and Construction

Table 5.10-1 details the estimated quantity of building and site materials that would be generated during demolition. All materials would be source separated to maximize recycling. Per the City of Sacramento Ordinance, a minimum of 50 percent of the demolition waste would be recycled.

Table 5.10-1 Estimated Volume of Building and Site Material to be Demolished

Material Type	Quantity (tons)
Construction and Demolition Debris	6,800
Concrete	89,000
Metal	5,200
Green Waste – Trees/Sod/Bushes	3,700
Asphalt, Base Material, and Site Concrete	14,000

Source: Conceptual Demolition Work Plan prepared by Cleveland Wrecking Company (March 2013)

As discussed above, there are several proximate disposal and recycling facilities. Although the facilities ultimately used for disposal would be determined at a later date, depending on feasibility and need (e.g. whether the onsite crushing option is used), these facilities have adequate capacity to accept demolition waste from the Sutter Park Neighborhood Project. Therefore, this impact would be **less than significant**.

Operation

Sutter Hospital currently produces an estimated 650 tons of solid waste annually, in addition to medical and hazardous wastes that are hauled separately. Based on a waste generation rate of 12 pounds per household per day and 125 total residences, the residential aspect of the project is expected to produce approximately 267 tons of solid waste annually. In addition, the mixed residential parcel could produce approximately 23 tons of solid waste annually. This would result in a reduction of 360 tons per year of solid waste. Therefore, the project would result in a decrease in the amount of solid waste to be transported to landfills and recycling facilities, and operation of the project would not require new or expanded waste facilities. Therefore, there would be **no impact** associated with solid waste disposal.

Mitigation Measure

No mitigation is required.

5.10.5 ENERGY

EXISTING SETTING

ELECTRICITY

Electrical service to the project site is provided by the Sacramento Metropolitan Utility District. The hospital and associated buildings currently consume an average of approximately 13,715,000 kilowatt

per hour (kWh) annually (Sutter Health 2013a). Electrical power lines are present along nearly the entire boundary of the project site.

NATURAL GAS

Gas service to the project site is provided by Pacific Gas and Electric. In 2012, the extant structures on the project site consumed 446,480 therms of natural gas (Sutter Health 2013b). The area around the project site includes a network of gas distribution lines. There are 2-inch lines associated with D, 52nd, 51st, and E Streets. Adjacent 53rd Street, F Street, Lagomarsino Way, and C Street have 4-inch lines within their rights-of-way. Pacific Gas and Electric recently installed approximately 25,000 feet of 12-inch transmission main through the former Mather Air Force base to a new Distribution Regulator Station located in Rancho Cordova that will supply power to East Sacramento.

REGULATORY SETTING

FEDERAL

There are no applicable federal energy regulations.

STATE

PROTECTION OF UNDERGROUND INFRASTRUCTURE

California Government Code, Section 4216, requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installation. The notification center alerts the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is then required to probe and expose the underground facilities by hand prior to using power equipment.

STATE BUILDING ENERGY EFFICIENCY STANDARDS

Energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards, contained in the California Code of Regulations, Title 24, Part 2, Chapters 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting.

Effective January 1, 2011, CALGreen is California's first green building standards code and a first-in-the-nation state-mandated green building code. It is formally known as the California Green Building Standards Code, Title 24, Part 11, of the California Code of Regulations. CALGreen establishes mandatory minimum green building standards and includes more stringent optional provisions known as Tier 1 and Tier 2. Cities and counties, at their discretion, may adopt Tier 1 or Tier 2 as mandatory or adopt and enforce other standards that are more stringent than the CALGreen Code. The City of

Sacramento adopted Tier 1 Building Code standards for all new development, effective January 1, 2014.

LOCAL

City of Sacramento 2030 General Plan

General Plan policies that may pertain to the Sutter Park Neighborhood Project include the following:

- **Policy U 1.1.10 Safe, Attractive, and Compatible Utility Designs.** The City shall ensure that public utility facilities are designed to be safe, aesthetically pleasing, and compatible with adjacent uses.
- **Policy U 1.1.11 Underground Utilities.** The City shall require undergrounding of all new publicly owned utility lines, encourage undergrounding of all privately owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines.

East Sacramento Community Plan

There are no applicable energy policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

Electrical demand of the proposed project is based on the 2011 average monthly residential demand of 567 kWh per day (US Energy Information System 2013) and the projected 2014 energy use for commercial businesses in the SMUD planning area of approximately 16.5 kWh per square foot (Kavalec and Gorin 2009). Demand for natural gas is based on the statewide average use per residence in 2009 of 454 therms annually (California Energy Commission [CEC] 2013) and a projected natural gas consumption rate of approximately 0.38 therms per square foot of commercial space in 2010 (CEC 2000).

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to energy would be considered significant if the project would:

- require or result in the construction of new energy production and/or transmission facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-8	**Environmental impacts from new or expanded energy production or power transmission facilities.** Energy use of the Sutter Park Neighborhood Project is anticipated to be less than the exiting demand of the Sutter Memorial Hospital. Therefore, new or expanded energy production or power transmission facilities would not be required and there would be **no impact**.

Sutter Memorial Hospital currently uses approximately 13,715,000 kWh annually. Annual use of the Sutter Park Neighborhood Project is estimated at 933,000 kWh (assuming an average residential use of 567 kWh per day and 125 residences, and an average commercial use of 16.5 kWh per square foot and 5,000 square feet of commercial space). Sutter Memorial Hospital currently uses 446,480 therms of gas energy annually. Annual use of the Sutter Park Neighborhood Project is estimated at 58,650 therms (assuming an average residential use of 454 therms per household per year and 125 residences plus 1,900 terms from 5,000 square feet of commercial use at 0.38 therms per square foot). Due to this anticipated reduction in electrical and gas power demand, new or expanded energy production or power transmission facilities would not be required, and there would be **no impact** to the environment.

Mitigation Measure

No mitigation is required.

5.10.6 TELECOMMUNICATIONS

EXISTING SETTING

Multiple companies provide telecommunication services to the Sacramento area. These include:

- AT&T, which supplies data communications, 911 service, high-speed local and long distance telephone service to most of the Sacramento Area via broadband technology, fiber optic cable, cable modem, and DSL services;
- Sprint, which supplies wireless and long distance telephone service to most of the Sacramento Area with a combination of underground facilities and above ground cellular towers;
- Comcast, which provides local and long distance phone, high-speed internet, and cable television service with a combination of underground and overhead fiber optic cable and copper coaxial cable;
- Surewest, which supplies local and long distance telephone service, wireless, digital television, and internet;
- MetroPCS Wireless, Inc., which provides high speed phone service;
- Verizon Communications, Inc., which provides high speed phone and internet, and cable TV services;

- Integra Telecom Holdings, Inc., which provides data communications, internet feed, and local and long distance voice communication services to the Sacramento area for non-residential customers with a combination of underground and overhead fiber optic cable and copper cable; and
- Digital Path, Inc., which provides high-speed phone and internet services through a network of microwave towers and relays running from the Bay Area to the northern edge of California.

These companies generally complete additional improvements or relocations to meet customer demand, as the need arises.

REGULATORY SETTING

FEDERAL

There are no applicable federal telecommunications regulations.

STATE

Protection of Underground Infrastructure

California Government Code, Section 4216, requires that an excavator contact a regional notification center at least two days prior to excavation of any subsurface installation. The notification center alerts the utilities that may have buried lines within 1,000 feet of the excavation. Representatives of the utilities are required to mark the specific location of their facilities within the work area prior to the start of excavation. The construction contractor is then required to probe and expose the underground facilities by hand prior to using power equipment.

LOCAL

City of Sacramento 2030 General Plan

The following General Plan policy may pertain to the Sutter Park Neighborhood Project:

- **Policy U 1.1.11 Underground Utilities.** The City shall require undergrounding of all new publicly owned utility lines, encourage undergrounding of all privately owned utility lines in new developments, and work with electricity and telecommunications providers to underground existing overhead lines.

East Sacramento Community Plan

There are no applicable energy policies in the East Sacramento Community Plan.

ENVIRONMENTAL CONSEQUENCES AND RECOMMENDED MITIGATION MEASURES (IMPACTS AND MITIGATION MEASURES)

METHOD OF ANALYSIS

It is assumed that local telecommunication companies would complete additional improvements or relocations to meet customer demand generated by the project based on their standard operating practices.

STANDARDS OF SIGNIFICANCE

For the purpose of this environmental impact report, impacts related to telecommunication services would be considered significant if the project would:

- require or result in either the construction of new telecommunication facilities or the expansion of existing telecommunication facilities, the construction of which could cause significant environmental effects.

PROJECT-SPECIFIC IMPACTS AND MITIGATION MEASURES

IMPACT 5.10-9	**Environmental impacts from new or expanded telecommunication facilities.** The new or expanded telecommunication facilities that may be required by the project would be consistent with the respective utilities' existing expansion and maintenance plans. Therefore, this impact would be **less than significant**.

The City of Sacramento is served by multiple telephone and cable providers, and services are currently provided to the Sutter Memorial Hospital site. The proposed project would connect to existing infrastructure. New or modified communication lines would be co-located with other utilities (such as electrical lines) wherever possible. The new or expanded telecommunication facilities that may be required by the project would be consistent with the respective utilities' existing expansion and maintenance plans, as well as the intent of the City of Sacramento's 2030 General Plan. This impact would be **less than significant**.

Mitigation Measure

No mitigation is required.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The cumulative context for utilities is the planning area or service territory for each service. This is generally, although not exclusively, the City of Sacramento.

IMPACT 5.10-10	**Result in the determination that adequate capacity is not available to serve the project's demand for utilities or require the expansion of existing utilities.** The proposed project would result in a reduced demand for public utilities There would be **no cumulative impact** to public utilities.

During project operation, the Sutter Neighborhood Project would reduce water demand, wastewater generation, and solid waste disposal, as indicated above in Impacts 5.10-1, 5.10-4, and 5.10-7. There would also be a sizable reduction in electricity and gas demand for the site, as discussed in Impact 5.10-8. Onsite water, wastewater, and sewer utilities would be approved by the City prior to construction so that facility design and connection points meet City standards. The Sutter Neighborhood Project would not contribute to a cumulative impact to public utilities.

Mitigation Measure

No mitigation is required.

6 OTHER CEQA CONSIDERATIONS

6.1 INTRODUCTION

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, the EIR must also identify the following: (1) significant environmental effects of the proposed project, (2) significant environmental effects that cannot be avoided if the proposed project is implemented, (3) significant irreversible environmental changes that would result from implementation of the proposed project, and (4) growth-inducing impacts of the proposed project. Although growth inducement itself is not considered an environmental effect, it could potentially lead to foreseeable physical environmental effects, which are discussed under Growth Inducing Impacts below.

6.2 SIGNIFICANT ENVIRONMENTAL EFFECTS

Chapter 2, Summary of Environmental Effects, and Sections 5.1 through 5.10 of this Draft EIR provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation. Project impacts found to be significant and requiring mitigation are listed below.

5.3-1 Loss of raptor nests.

5.3-2 Impacts on migratory birds.

5.3-3 Loss of bat colonies during building demolition.

5.3-4 Conflict with tree preservation ordinance.

5.3-5 Expose animals and plants to asbestos-containing materials, petroleum products, contaminated groundwater or other hazardous materials or situations.

5.5-2 Disturb archaeological resources.

5.5-3 Destroy a unique paleontological resource.

5.6-1 Expose people to asbestos-containing materials, or other hazardous materials or situations.

5.6-2 Expose people to existing contaminated soil during construction.

5.6-3 Expose people to existing contaminated groundwater during construction or dewatering activities.

5.7-2 Increase in ambient noise levels during construction.

5.8-6 Construction-related impacts to circulation.

6.2.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Section 15126.2(b) of the CEQA Guidelines requires that an EIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The environmental effects of the proposed project on various aspects of the environment are discussed in detail in Chapter 5 of this Draft EIR. As discussed in the technical sections of this Draft EIR, only one project-specific significant and unavoidable impact was identified in Section 5.7, Noise. Impact 5.7-2, Increase in Ambient Noise Levels during Construction, discusses construction activities at the project site. Heavy construction equipment and demolition activities would generate elevated noise levels at nearby receptors. Construction activities would be limited to the hours permitted by City Code Section 8.68 and would generally occur between 8 a.m. and 4:30 a.m. Monday through Friday. Implementation of Mitigation Measure 5.7-2a-f would decrease the magnitude of this impact by locating rock-crushing equipment away from residences, maximizing distance between construction/demolition staging areas and residences, requiring mufflers on all internal combustion engines, shielding of demolition noise by existing buildings, localized shielding of ground level noise sources with portable barriers, and providing notification of noisiest construction/demolition activities to local community. However, noise levels would still exceed established exterior standards for single-family residential structures.

6.2.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Section 15126.2(c) states:

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 improvement which provides 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.

Generally, a project would result in significant irreversible environmental changes if:

- the primary and secondary impacts would generally commit future generations to similar uses;
- the project would involve uses in which irreversible damage could result from any potential environmental accidents associated with the project;
- the project would involve a large commitment of nonrenewable resources; or
- the proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy).

Development of the proposed project would result in the continued commitment of the project site to urban development, thereby precluding any other uses for the lifespan of the project.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the project would result in the use, transport, storage, and disposal of some hazardous wastes, as described in Section 5.6, Hazards and Hazardous Materials, all future activities would be required to comply with applicable state and federal laws related to the use, storage, and disposal of hazardous materials, which significantly reduces the likelihood and severity of accidents that could result in irreversible environmental damage. Because the project site would be committed to residential and commercial uses, hazardous materials used would be generally confined to household hazardous materials such as cleaners, solvents, and pesticides.

Implementation of the proposed project would result in the continued long-term commitment of resources to urban development. The most notable significant irreversible impacts are increased generation of pollutants, and the short-term commitment of non-renewable and/or slowly renewable natural and energy resources, such as water resources during construction activities. Operations associated with future uses would also consume natural gas and electrical energy. These consequences of urban growth are described in the appropriate technical sections in Chapter 5 of this EIR.

Resources that would be permanently and continually consumed once the project is completed include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in the unnecessary, inefficient, or wasteful use of resources. In accordance with the Climate Action Plan (CAP) Consistency Review Checklist (Appendix E), the proposed project would, as a condition of approval, commit to exceed the 2008 Building Energy Efficiency Standards (Title 24, Part 6 of the California Building Code) by 15 percent as a condition of approval. It should be noted that on January 1, 2014, the new 2013 Building Energy Efficiency Standards go into effect. Under those new standards, minimum mandatory code requirements will already exceed the 2008 standards by 20 percent for residential buildings and 25 percent for commercial buildings.

Meeting an energy efficiency performance standard that is more stringent than the minimum assumptions in the CAP, in lieu of on-site renewables, would ensure that natural resources are used efficiently. Nonetheless, construction activities and project operation would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas (heating), and gasoline/diesel for automobiles and construction equipment.

6.2.3 GROWTH INDUCING IMPACTS

As required by Section 15126.2(d) of the CEQA Guidelines, an EIR must discuss ways in which a proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also, the EIR must discuss the characteristics of the project that could encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. Growth can be induced in a number of ways,

such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. Although growth inducement itself is not considered an environmental effect, it could potentially lead to adverse environmental effects.

In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (e.g., the establishment of an essential public service (e.g., water service), the provision of new access to an area, or a change in zoning or general plan amendment approval); or economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc).

The project would be developed in a built-out, urban area of East Sacramento which contains established land uses and supporting infrastructure (roads, water distribution, wastewater and drainage collection, and energy distribution). An established transportation network exists in the project area that offers local and regional access to the project site. The existing roadways adjoining the site – 51st Street and F Street - provide access to the project site. On-site circulation would be facilitated by construction of internal streets. These internal streets would serve to re-connect the grid of the neighborhood. No improvements to streets adjacent to the project site would be required in order to serve the increased population generated by the proposed project.

The Sutter Park Neighborhood Project would use existing public water, sanitary sewer, and storm drainage utility infrastructure that is within the roadways adjoining the project site and currently provides service to the existing hospital facility. New utility infrastructure would be routed within the new roadway network. Planned utilities include sewer and water lines in every street, and a centralized storm drain. The 48-inch public storm drain that is located in an easement along the northeastern corner of the project site would be relocated to avoid conflicts with residential parcels. The new easement would transect the northeast corner of the project site east of the planned cottage homes.

Electricity and natural gas transmission infrastructure presently exists on and in the vicinity of the project site. The project would connect to existing infrastructure. New or modified communication lines would be co-located with other utilities (such as electrical lines) wherever possible. The new or expanded telecommunication facilities that may be required by the project would be consistent with the respective utilities' existing expansion and maintenance plans, as well as the intent of the City of Sacramento's 2030 General Plan.

In addition to the small amount of employment generated by the proposed project, additional local employment can be generated through the "multiplier effect," which refers to the economic activity that is generated as a result of other new economic activity. However, employment from residences and commercial space within the proposed project would not be substantial in the context of the local economy.

IMPACTS OF INDUCED GROWTH

The proposed project would develop a maximum of 125 single-family residential units which could increase the population within the City by approximately 300 residents. As a result, potential growth inducing effects may occur when rezoning existing hospital use to single-family and multi-family residential and residential mixed-use. The growth inducement could result in the additional development of services and facilities that encourage the development of urban uses in surrounding areas.

However, while the proposed project would connect to existing roadways the project is located within a developed area and traffic improvements would not induce growth elsewhere. The proposed project would be able to tie into existing utility infrastructure and would not require the expansion of utilities infrastructure. Furthermore, the proposed project is located in an existing urban area, and is surrounded on all sides by existing development. As a result, the proposed project would be considered an infill project that would redevelop a site on which previous development occurred. Therefore, the proposed project would not result in growth inducing effects.

6.2.4 CUMULATIVE IMPACTS

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with project implementation. This assessment involves examining project-related effects on the environment in the context of similar effects that have been caused by past or existing projects, and the anticipated effects of future projects. Although project-related impacts may be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed (CEQA Guidelines, Section 15130(a)). Each section of Chapter 5, Environmental Analysis, concludes with a cumulative impact analysis for the issue area addressed.

An EIR must discuss the “cumulative impacts” of a project when its incremental effect will be cumulatively considerable. This means that the incremental effects of an individual project would be significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (CEQA Guidelines, Section 15065(a)(3)).

CEQA Guidelines Section 15355 defines cumulative impacts as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” This section states further that “individual effects may be changes resulting from a single project or a number of separate projects.” “The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.”

Section 15130(a)(3) states also that an EIR may determine that a project’s contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a

project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Section 15130(b) indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, that it should reflect the severity of the impacts and their likelihood of occurrence, and that it should be focused, practical, and reasonable.

The State CEQA Guidelines identify two basic methods for establishing the cumulative environment in which the project is to be considered: the use of a list of past, present, and probable future projects or the use of adopted projections from a general plan, other regional planning document, or a certified EIR for such a planning document. For this Draft EIR the plan approach is used. Overall, the cumulative context includes buildout of the City of Sacramento 2030 General Plan. As discussed in Sections 5.1 through 5.10, the proposed project would result in land uses on the project site that are less intense than existing uses. In particular, traffic trips would decrease, with a resultant decrease in noise levels and air pollutant and greenhouse gas emissions. Demand for utilities such as water, water treatment, wastewater treatment, and solid waste disposal would decrease. Therefore, in many areas, the proposed project would not contribute to a long-term cumulative impact. Because no significant cumulative impacts were identified, the proposed project would also not contribute to cumulative effects beyond those addressed in Sacramento's 2030 General Plan Master EIR.

The basis of the cumulative analysis varies by technical area. For example, air quality impacts are evaluated against conditions in the Sacramento Valley Air Basin. Other cumulative analyses, such as cultural resources, consider the potential loss of resources in a broader, more regional context. Cumulative impacts for each technical area are discussed at the end of each section in Chapter 5.

7 ALTERNATIVES

7.1 INTRODUCTION

This chapter identifies and describes alternatives to the proposed project. CEQA requires that an EIR evaluate project alternatives that either reduce or eliminate the significant or potentially significant adverse environmental effects identified as a result of the proposed project, while still meeting most if not all of the basic project objectives.

7.1.1 CALIFORNIA ENVIRONMENTAL QUALITY ACT REQUIREMENTS

Section 15126.6(a) of the State CEQA Guidelines requires EIRs to describe "…a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives that are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason." This section of CEQA also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis, as follows:

> Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code [PRC] Section 21002.1), the discussion of alternatives shall 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, or would be more costly.

The State CEQA Guidelines further require that the alternatives be compared to the project's environmental impacts and that the "no project" alternative be considered (CEQA Guidelines Section 15126.6[d] [e]).

In defining "feasibility" (e.g.," … feasibly attain most of the basic objectives of the project…"), State CEQA Guidelines Section 15126.6(f) (1) states, in part:

> Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can

> reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project's significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in Section 15126.6(a). Although, as noted above, EIRs must contain a discussion of "potentially feasible" alternatives, the ultimate determination as to whether an alternative is feasible or infeasible is made by the lead agency's decision-making body, here the City of Sacramento City Council. (See PRC Section 21081[a] [3].)

An EIR need not evaluate the environmental effects of alternatives in the same level of detail as the proposed project, but must include enough information to allow meaningful evaluation, analysis, and comparison with the proposed project. CEQA provides the following guidelines for discussing alternatives to a proposed project:

> The specific alternative of the "no project" shall also be evaluated along with its impacts....If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines, section 15126.6 subd.(e)(2)).
>
> The discussion of alternatives shall 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 proposed objectives, or would be more costly (CEQA Guidelines, section 15126.6 subd.(b)).
>
> If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed (CEQA Guidelines, section 15126.6 subd.(d)).
>
> The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice....The range of feasible alternatives shall be selected and discussed in a manner to foster meaningful public participation and informed decision making....An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative (CEQA Guidelines, section 15126.6 subd.(f)).

The requirement that an EIR evaluate alternatives to the proposed project or alternatives that address the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the Public Resources Code and the

CEQA Guidelines direct that the EIR need “set forth only those alternatives necessary to permit a reasoned choice.”

A discussion of alternatives considered but not analyzed in further detail is included in this chapter, following the discussion of the project alternatives and the comparison of alternatives (see 7.4, below).

7.2 PROJECT OBJECTIVES

In identifying potentially feasible alternatives to the project, the ability of alternatives to meet most of the project’s objectives were considered. The project objectives are listed below (see also Chapter 3, “Project Description”).

1. To decommission the existing hospital and related-care facilities and successfully prepare the site for subsequent redevelopment.

2. To utilize this infill location and its proximity to the urban core for the construction of a residential development, thereby improving the jobs/housing balance and reducing vehicle miles travelled within the City of Sacramento.

3. To contribute to the overall character and livability of the surrounding neighborhood by facilitating the residential reuse of the property in a manner that preserves, protects, and enhances the existing traditional neighborhood.

4. To create a pedestrian-friendly, walkable neighborhood that includes varied streetscapes, well designed and safe alleys, abundant tree canopy, and sensitive transitions from the existing neighborhood.

5. To connect the existing grid network by extending existing street patterns and selectively introducing new street connections that improve vehicular and pedestrian connectivity.

6. To maintain an overall residential density that respects and responds to the surrounding neighborhood and is appropriate for the site’s physical and environmental conditions.

7. To provide unique, varied, and high-quality housing opportunities consistent with and complementary to the overall character of the adjacent neighborhood in its design.

8. To creatively address generational needs by including a range of unit sizes and incorporating universal design features, features designed to be usable to the greatest extent possible by everyone, regardless of their age or ability, where appropriate.

9. To provide a diverse mixture of open space areas and parks that are easily accessible to pedestrians and that complement existing neighborhood parks and provide multi-generational recreational opportunities.

Equally important to attaining the project objectives is the reduction of some or all significant impacts, particularly those that could not be mitigated to a level below the threshold of significance. The project-specific significant and unavoidable impacts of the proposed project, after mitigation, are identified below. There are no cumulative significant and unavoidable impacts of the proposed project.

7.2.1 PROJECT-SPECIFIC SIGNIFICANT AND UNAVOIDABLE IMPACTS

5.7-2 Increase in Ambient Noise Levels During Construction.

During construction activities at the project site, heavy construction equipment and demolition activities would generate elevated noise levels at nearby receptors, and interior noise levels would potentially exceed established standards for residential structures. Implementation of Mitigation Measure 5.7-2 would reduce the magnitude of this impact, but it would remain significant and unavoidable.

7.3 ALTERNATIVES CONSIDERED IN THIS EIR

This EIR analyzes the following alternatives to the Proposed Project:

- Alternative 1: No Project/No Development (Vacant Site) Alternative;
- Alternative 2: No Project/No Action (Vacant Hospital) Alternative; and
- Alternative 3: No 53rd Street Extension Alternative

CEQA requires consideration of the No Project alternative, which addresses the impacts associated with not moving forward with the proposed project. The No Project Alternative can take many forms, including doing nothing, depending on what may logically occur if a project is not developed. In the case of the subject project, two “No Project” alternatives are considered: removing the existing hospital buildings and leaving the site vacant (Alternative 1), and vacating the existing buildings but leaving them intact (Alternative 2). It should be noted that Section 5.8, “Transportation and Traffic,” includes a comparison of traffic under existing conditions (Existing No Project) and near term cumulative conditions (Near Term Cumulative No Project) to conditions under the proposed project. For the traffic analysis, the term “No Project” assumes that operations of the existing project site uses continue and that construction and operation of the proposed Sutter Park Neighborhood Project does not occur. This serves as the baseline for the traffic analysis, as discussed in Chapter 5, “Introduction to the Analysis.” As discussed below under 7.4.1 of this chapter, continued operations of the hospital was determined infeasible as a project alternative and is not analyzed further in this chapter.

Section 7.4 of this EIR describes additional alternatives that were considered in this analysis, but were not evaluated because they would be infeasible.

Table 7-4 at the end of the chapter summarizes the level of significance of the impacts for the proposed project and each of the alternatives.

7.3.1 ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT (VACANT SITE)

The purpose of analyzing the No Project Alternative is to allow decision-makers to compare the impacts of the proposed project versus no project. Under the No Project/No Development (Vacant Site) Alternative, operations related to Sutter Memorial Hospital would be transferred to other SMCS facilities (as already approved), the hospital would be decommissioned, and the existing structures and associated infrastructure on the site would be demolished. The site would not be redeveloped. This alternative assumes that the proposed project would not be built and there would be no new development of the site. Under this alternative, Sutter Memorial Hospital and its associated buildings would be demolished and the site would remain vacant.

COMPARATIVE ENVIRONMENTAL EFFECTS

AESTHETICS

Under Alternative 1, the existing hospital and associated buildings would be demolished, and the views onto the project site would consist of a vacant parcel. Similar to the proposed project, this alternative would remove the urban multi-story hospital from the project site. However, this Alternative would not include replanting of trees or the redevelopment of the site at a scale and design that would be visually consistent with the surrounding neighborhood. Aesthetics impacts would be similar to the proposed project, but potential effects could be greater because a vacant site would not be visually compatible with the surrounding neighborhood. (*Greater*)

AIR QUALITY

This alternative would not include any new development, and thus would not generate operational-related air emissions impacts. Potential impacts associated with demolition of the existing structures on the project site would be similar to those identified under the proposed project. Alternative 1 would result in similar demolition-related impacts as the proposed project but would avoid operational air emissions; while, this alternative would result in fewer emissions and less of an impact, project operations would not produce significant air quality impacts. *(Less but not a significant reduction)*

BIOLOGICAL RESOURCES

Under the No Project/No Development Alternative, the existing buildings, parking lots, and associated infrastructure would be demolished, and the project site would be empty and available for future development. Because the existing buildings would be demolished, the impacts on trees would be similar to those described for the proposed project and Mitigation Measures 5.3-1 through 5.3-5 would be required. Depending on the level of grading conducted after demolition, some existing trees may remain on the project site. However, under this alternative, the project site would remain vacant and new trees would not be planted. In the long term, Alternative 1 would result in a significant and unavoidable impact from the loss of mature trees. The No Project/No Development Alternative would result in a greater impact than the proposed project. (*Greater*)

Climate Change

This alternative would not include any new development, and thus would not directly result in operational-related air emissions. The demolition-related greenhouse gas emissions would be similar to the proposed project, and the construction-related emissions would not occur. The operational emissions would be less than the proposed project because new area and mobile sources of emissions would not occur, and this would remain a less-than-significant impact. Overall, this impact would be less than the proposed project. *(Less)*

Cultural Resources

Alternative 1 would include the demolition and removal of existing buildings and infrastructure on the project site. Impact 5.5-1 (Change in the significance of an historical resource) would remain the same. Potential effects to archaeological and paleontological resources (Impacts 5.5-2 and 5.5-3) would be similar to the proposed project, because Alternative 1 would include demolition of the existing structures, and the deepest excavation is expected to reach up to 20 feet during demolition of the basement slab and related footings. The cultural resources impacts would be less than significant with implementation of Mitigation Measures 5.5-2 and 5.5-3, similar to the proposed project. (*Similar*)

Hazards and Hazardous Materials

This alternative would not include any new development, and thus would not generate new construction that could expose construction workers and the environment to hazardous chemicals or materials at the project site from soil contamination or groundwater contamination. However, because the existing buildings and associated infrastructure would be demolished, Impacts 5.6-1 through 5.6-3 would remain potentially significant. Implementation of Mitigation Measures 5.6-1 through 5.6-3 would reduce these impacts to less-than-significant levels. Overall, the No Project/No Development Alternative would result in similar hazards and hazardous materials impacts compared to the project. *(Similar)*

Noise

This alternative would not involve the construction of new or modified facilities. This alternative would not result in any construction-related impacts. Alternative 1 would not increase traffic on local roadways, and operational impacts would remain less than significant, similar to the proposed project. However, noise impacts associated with demolition of the existing buildings would occur. Mitigation Measure 5.7-2 would still be required to reduce the impacts of elevated noise levels at nearby receptors, but the significant and unavoidable noise impact would remain. Construction-related noise impacts would not occur because the site would remain vacant after the existing structures are demolished. While demolition-related noise levels would not be substantially different than noise levels associated with the proposed project, construction and operational noise levels would be less. *(Less, but still significant and unavoidable*)

Transportation and Traffic

Trips generated by the hospital were removed from the existing counts to evaluate traffic conditions with an empty site. The existing hospital traffic patterns were estimated from the turning movement counts and the *Sutter Memorial Existing Conditions Transportation & Traffic* report prepared by Fehr & Peers in June 2011 (Fehr and Peers, 2011). Exhibit 7-1 illustrates existing traffic less hospital trips at the study intersections during the AM and PM peak hours. The daily roadway volumes under Alternative 1 are depicted in Exhibit 7-2 (in green) along with those under the existing (in red) and existing plus project (in blue) scenarios.

As shown in Table 7-1, the study intersections continue to operate at acceptable level of service (LOS) A during both peak hours. Table 7-2 shows that a traffic signal is not warranted at any of the unsignalized intersections. Table 7-3 illustrates the daily roadway segment analysis. The LOS worksheets are provided in Appendix G, Part 8. The warrant analysis worksheets are in Appendix G, Part 9.

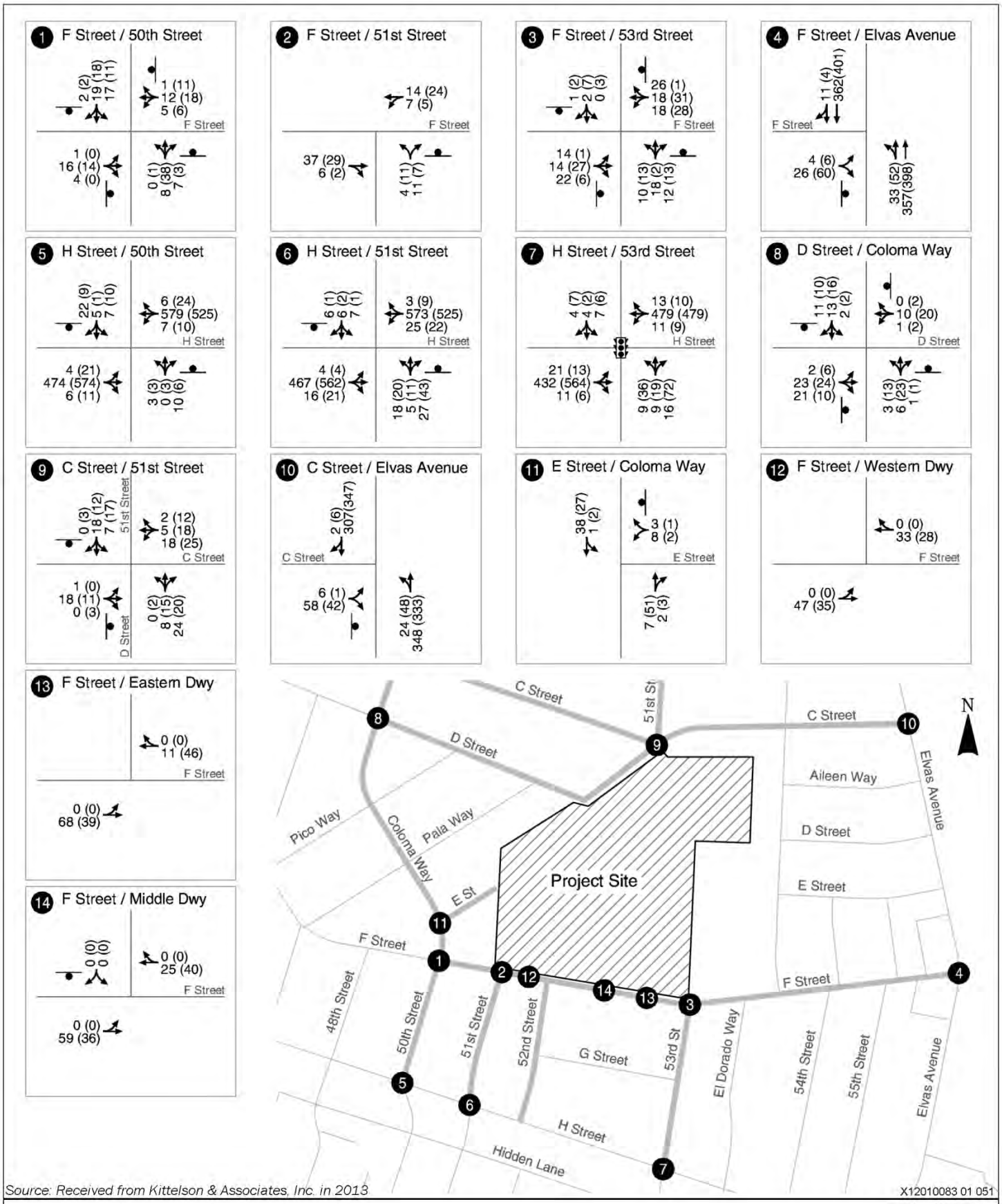
As shown in Exhibit 7-1, daily traffic volumes under Alternative 1 would decrease relative to existing conditions on most streets because the hospital-related trips would not occur and there would no new uses (with resultant trip generation) on the project site. Under Alternative 1, estimated daily traffic volumes would be the same as under existing conditions on C and D Streets and 51st Street, north of the project site. In addition, daily traffic volumes under Alternative 1 would be less than those under the proposed project for most of the streets surrounding the project site. The construction-related impact would still occur, and Mitigation Measure 5.8-6 would be required. Operational impacts would remain less than significant, but to a lesser degree than the proposed project. *(Less)*

Public Services and Recreation

Alternative 1 would not include any new development, and thus would not result in the generation of new residential uses and the resultant population. Alternative 1 would not increase the demand for public services, including police protection, fire protection, emergency services, schools, libraries, or recreation facilities. No impacts related to public services would occur, and this alternative would result in less impact than the proposed project. (*Less*)

Utilities and Service Systems

Alternative 1 would not include any new development, and thus would not result in the generation of new residential uses and the resultant population. Alternative 1 would not result in the need for public utilities, including water supply and treatment, wastewater treatment, and solid waste disposal. Discharge to the City's existing storm drain system would be less than the existing discharge from the Sutter Memorial Hospital and related facilities, because the vacant site would result in an increase in pervious surface in the project site. This would remain a less-than-significant impact, but less than the proposed project, because the proposed project would increase the amount of pervious surface on the site to a lesser degree than Alternative 1. (*Less*)



Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 7-1 **Alternatives 1 and 2 Intersection Traffic Volumes**

- Existing

- Alternatives 1 and 2

- Proposed Project

Source: Received from Kittelson & Associates, Inc. in 2013

X12010083 01 052

Exhibit 7-2 **Alternatives 1 and 2 Daily Roadway Traffic Volumes**

Table 7-1 Alternatives 1 and 2 Intersection Levels of Service (Compared to the Proposed Project)

#	Intersection	Control	Peak Hour	Existing Conditions		Existing Plus Proposed Project		Alternatives 1 and 2	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
1	50th Street & F Street	AWSC	AM	A	7.4	A	7.2	A	7.2
			PM	A	7.4	A	7.3	A	7.2
2	51st Street & F Street	SSSC	AM	A (A)	2.7 (9.0)	A (A)	4.3 (9.4)	A (A)	2.3 (8.7)
			PM	A (A)	2.2 (9.0)	A (A)	4.9 (9.6)	A (A)	2.5 (8.9)
3	53rd Street & F Street	AWSC	AM	A	8.2	A	7.3	A	7.1
			PM	A	8.2	A	7.5	A	7.3
4	Elvas Avenue & F Street	SSSC	AM	A (B)	2.3 (10.5)	A (B)	1.0 (10.2)	A (B)	0.8 (10.3)
			PM	A (B)	2.1 (10.9)	A (B)	1.7 (10.7)	A (B)	1.3 (10.6)
5	50th Street & H Street	SSSC	AM	A (C)	1.5 (20.8)	A (C)	1.3 (19.7)	A (C)	0.9 (17.6)
			PM	A (D)	1.6 (25.9)	A (D)	1.7 (26.0)	A (C)	1.0 (22.9)
6	51st Street & H Street	SSSC	AM	A (D)	2.4 (27.6)	A (D)	2.3 (26.4)	A (C)	1.7 (22.8)
			PM	A (D)	2.1 (27.1)	A (D)	2.7 (29.8)	A (C)	1.8 (24.3)
7	53rd Street & H Street	Signal	AM	A	4.1	A	3.6	A	2.8
			PM	A	6.7	A	5.5	A	5.3
8	Coloma Way & D Street	AWSC	AM	A	7.0	A	7.0	A	7.0
			PM	A	7.3	A	7.3	A	7.3
9	51st Street & C Street	SSSC	AM	A (A)	2.6 (4.8)	A (A)	2.1 (4.9)	A (A)	4.6 [2.6]
			PM	A (A)	1.9 (5.1)	A (A)	1.5 (5.5)	A (A)	5.1 [2.0]
10	Elvas Avenue & C Street	SSSC	AM	A (B)	1.3 (10.9)	A (B)	1.4 (11.1)	A (B)	1.3 (10.9)
			PM	A (B)	1.3 (10.9)	A (B)	1.4 (11.2)	A (B)	1.3 (10.9)
11	Coloma Way/50th Street & E Street	SSSC	AM	A (A)	3.3 (9.1)	A (A)	2.8 (8.9)	A (A)	1.8 (8.8)
			PM	A (A)	2.8 (9.0)	A (A)	1.4 (9.0)	A (A)	0.5 (8.8)
12	F Street & Western Hospital Driveway	SSSC	AM	A (A)	0.9 (1.4)	DNE	DNE	DNE	DNE
			PM	A (A)	0.2 (0.4)	DNE	DNE	DNE	DNE
13	F Street & Eastern Hospital Driveway	SSSC	AM	A (A)	0.2 (0.2)	DNE	DNE	DNE	DNE
			PM	A (A)	0.0 (0.0)	DNE	DNE	DNE	DNE
14	F Street & Middle Hospital Driveway/Project Access	SSSC	AM	A (A)	2.7 (9.5)	A (A)	1.0 (8.9)	DNE	DNE
			PM	A (A)	2.6 (9.2)	A (A)	1.2 (8.9)	DNE	DNE

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control, DNE = Does Not Exist
[1] For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for worse movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Table 7-2 Alternatives 1 and 2 Signal Warrant Analysis

#	Intersection	Control	Peak Hour Warrant Met?	
			AM Peak	PM Peak
1	50th Street & F Street	AWSC	No	No
2	51st Street & F Street	SSSC	No	No
3	53rd Street & F Street	AWSC	No	No
4	Elvas Avenue & F Street	SSSC	No	No
5	50th Street & H Street	SSSC	No	No
6	51st Street & H Street	SSSC	No	No
8	Coloma Way & D Street	AWSC	No	No
9	51st Street & C Street	SSSC	No	No
10	Elvas Avenue & C Street	SSSC	No	No
11	Coloma Way/50th Street & E Street	SSSC	No	No
12	F Street & Western Hospital Driveway	SSSC	DNE	DNE
13	F Street & Eastern Hospital Driveway	SSSC	DNE	DNE
14	F Street & Middle Hospital Driveway	SSSC	DNE	DNE

AWSC = All-Way Stop Control, SSSC = Side Street Stop Control, DNE = Does Not Exist
Source: Kittelson & Associates, 2013

Table 7-3 Alternatives 1 and 2 Roadway Segment Levels of Service

Roadway	Segment	Classification	Lanes	Existing Conditions			Existing Plus Proposed Project			Alternatives 1 and 2		
				Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS	Average Daily Traffic	V/C	LOS
50th Street	F Street to H Street	Local	2	1,389	0.28	A	675	0.13	A	386	0.08	A
51st Street	F Street to H Street	Local	2	596	0.12	A	738	0.15	A	408	0.08	A
52nd Street	F Street to H Street	Local	2	773	0.15	A	626	0.13	A	585	0.12	A
53rd Street	F Street to H Street	Local	2	3,132	0.63	B	620	0.12	A	248	0.05	A
F Street	50th Street to 52nd Street	Local	2	1,410	0.28	A	905	0.18	A	658	0.13	A
F Street	52nd Street to 53rd Street	Local	2	2,065	0.41	A	1,393	0.28	A	1,125	0.22	A
F Street	53rd Street to Elvas Avenue	Local	2	2,583	0.52	A	1,576	0.32	A	1,266	0.25	A
Coloma Way	North of E Street	Collector	2	826	0.09	A	491	0.06	A	450	0.05	A
Coloma Way	D Street to B Street	Collector	2	497	0.06	A	330	0.04	A	309	0.04	A
D Street	51st to Coloma Way	Local	2	528	0.11	A	611	0.13	A	528	0.11	A
C Street	51st to Coloma Way	Local	2	301	0.06	A	342	0.06	A	301	0.06	A
51st Street	C Street to Brand Way	Local	2	357	0.07	A	378	0.08	A	357	0.07	A
C Street	51st Street to Elvas Avenue	Local	2	810	0.16	A	851	0.17	A	810	0.16	A
E Street	East of Coloma Way	Local	2	1,344	0.27	A	234	0.05	A	27	0.01	A

Source: Kittelson & Associates, 2013

CONCLUSION

Alternative 1, the No Project/No Development Alternative would result in less impact than the proposed project because it would not result in the development of new residential and commercials uses on the project site. However, this alternative would not avoid or reduce any significant impacts, and would not substantially reduce any impacts that would otherwise result from the project. Further, demolition-related impacts would be the same because the existing hospital and related infrastructure would be removed, and this alternative would result in the same significant and unavoidable noise impact identified for the project.

Alternative 1 would not meet the project objectives because it would not result in redevelopment of an infill location, would not provide high-quality housing opportunities consistent with and complementary to the overall character of the adjacent neighborhood, and would not connect the existing grid network by extending existing street patterns in the project area.

7.3.2 ALTERNATIVE 2: NO PROJECT/NO ACTION (VACANT HOSPITAL) ALTERNATIVE

Under the No Project/No Action (Vacant Hospital) Alternative, the existing structures on the site would remain and the site would not be redeveloped. The environmental conditions under Alternative 2 would be similar to those described on pages 3-1 through 3-8 of Chapter 3, “Project Description,” of this Draft EIR with the exception that the hospital and associated buildings would not operate and would be vacant. Under this alternative Sutter Memorial Hospital would not be demolished, but existing uses would transfer to other Sutter Medical Center, Sacramento (SMCS) facilities, and the hospital and associated buildings would remain vacant. There would be no new residential and commercial development on the site.

COMPARATIVE ENVIRONMENTAL EFFECTS

AESTHETICS

Under Alternative 1, the existing hospital and associated buildings would remain, and views onto the project site would be the same as under existing conditions. New sources of light and glare would not be introduced. This Alternative would not include redevelopment of the site at a scale and design that would be visually consistent with the surrounding neighborhood. Aesthetics impacts would be similar to the proposed project, but potential effects could be greater because redevelopment would not occur and non-operation of the project site could result in physical and visual deterioration of the buildings over time. (*Greater*)

AIR QUALITY AND CLIMATE CHANGE

This alternative would not include any new development, and thus would not generate new demolition- or construction-related air emissions or climate change impacts. This alternative would not include any new

development, and thus would not directly result in operational-related air emissions. The operational emissions would be less than the proposed project because new area and mobile sources of emissions would not occur. Because this alternative would not result in significant air quality and climate change impacts, this alternative would result in less impact than the proposed project. *(Less)*

Biological Resources

Under the No Project/No Development Alternative, the existing buildings, parking lots, and associated infrastructure would remain, and the project site would be empty and available for future development. Impacts 5.3-1 through 5.3-5 would not occur because buildings would not be demolished and trees would not be removed from the site. Under Alternative 2, no biological resources impacts would occur, and this alternative would result in less impact than the proposed project. (*Less*)

Hazards and Hazardous Materials

Alternative 2 would not include any new development, and thus would not generate new construction that could expose construction workers and the environment to hazardous chemicals or materials at the project site from soil contamination or groundwater contamination. Existing buildings and associated infrastructure would not be demolished and no demolition-related impact would occur. No mitigation would be required. Sutter Memorial Hospital would be decommissioned and implementation of the transition plan and abatement would still occur. Similar to the proposed project, hazardous materials stored and used at Sutter Memorial Hospital would be removed. However Mitigation Measures 5.6-1 and 5.6-2 would not be implemented under the decommissioning process, and potential remediation of contaminated soil (if existing) would not occur. The No Project/No Action Alternative would result a less-than-significant impact, but to a greater degree than the proposed project because site investigations would not occur and potential unidentified features or materials that could present a threat to human health or the environment would not be remediated. *(Greater)*

Noise

This alternative would not involve the demolition of existing buildings and infrastructure or the construction of new or modified facilities. This alternative would not result in any construction-related noise impacts. Further, this alternative would not increase traffic on local roadways. The significant and unavoidable noise impact would not occur. No noise impacts would occur, and Alternative 2 would result in less impact than the proposed project. *(Less*)

Transportation and Traffic

Similar to Alternative 1, the No Project/No Action Alternative would not result in operational traffic volumes because the site would be vacant. The operational traffic volumes and level of service analysis results would be the same as those described above under Alternative 1. As shown in Table 7-1, the study intersections would continue to operate at acceptable level of service (LOS) A during both peak hours. As shown in Exhibit 7-1, daily traffic volumes under Alternative 2 would decrease relative to existing conditions on most streets because the hospital-related trips would not occur and there would

be no new uses (with resultant trip generation) on the project site. Under Alternative 2, estimated daily traffic volumes would be the same as under existing conditions on C and D Streets and 51st Street, north of the project site. In addition, daily traffic volumes under Alternative 2 would be less than those under the proposed project for most of the streets surrounding the project site. Roadway segments and intersections would operate at a similar, or better, LOS relative to existing conditions. The construction-related impact would not occur, and Mitigation Measure 5.8-6 would not be required. Impacts would remain less than significant, but to a lesser degree than the proposed project. *(Less)*

PUBLIC SERVICES AND RECREATION

Alternative 2 would not include any new development, and thus would not result in the generation of new residential uses and the resultant population. Alternative 2 would not increase the demand for public services such as fire protection, emergency services, schools, libraries, or recreation facilities. The demand for police protection would be similar to or greater than under the proposed project, because police patrol would still be required and could increase because of the potential for trespassing, and associated security concerns, in and around vacant buildings on the site. (*Greater)*

UTILITIES AND SERVICE SYSTEMS

Similar to Alternative 1, Alternative 2 would not result in the need for public utilities, including water supply and treatment, wastewater treatment, and solid waste disposal. No impacts related to utilities would occur, and this alternative would result in less impact than the proposed project. (*Less*)

CONCLUSION

Alternative 2, the No Project/No Action Alternative, would result in less impact than the proposed project because it would not result in the development of new residential and commercials uses on the project site and would result in an increase in residential population. In addition, this alternative would not result in the significant and unavoidable impact related to demolition noise because the existing buildings and related infrastructure on the project site would remain. However, Alternative 2 would not meet the project objectives because it would not result in redevelopment of an infill location, would not provide housing opportunities close the City of Sacramento urban core, would not improve the jobs/housing balance or reduce vehicle miles travelled within the City, and would not connect the existing grid network by extending existing street patterns in the project area.

7.3.3 ALTERNATIVE 3: NO 53RD STREET EXTENSION

With this access alterative, the project site would not have access at 53rd Street, but it would include four other access locations similar to the proposed project. The north leg of the 53rd Street and F Street would continue to provide inbound only movement to the adjacent medical building (see Exhibit 7-3). This alternative would reduce the number of access points to the new development and would provide an alternate circulation system.

Source: Received from Kittelson & Associates, Inc. in 2013

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Exhibit 7-3 **Alternative 3, No. 53rd Street Extension**

COMPARATIVE ENVIRONMENTAL EFFECTS

The No-53rd Street Extension Alternative would be similar to the proposed project in terms of development of the project. It would result in the construction and operation of up to 125 residential units and up to 5,000 square feet of commercial uses. Therefore, the impacts related to aesthetics, biological resources, climate change, cultural resources, hazards and hazardous materials, public services and recreation, and utilities and service systems would be the same as under the proposed project.

The biological resources impacts of Alternative 3 would be similar to the proposed project because the existing buildings and infrastructure would be demolished, and the site would be graded for construction of project roadways, parks, and residential and commercial uses.

The transportation and circulation effects of the No 53rd-Street Alternative are discussed in Section 5.8 under the access alternative/scenario discussions. As discussed under Impact 5.8-1, Alternative 3 would result in a less-than-significant impact on intersection levels of service, similar to the Proposed Project. Table 5.8-7 is reprinted, as Table 7-4, below comparing intersection level of service levels under Alternative 3. Compared to the proposed project, eight intersections would result in the same average delay during the AM and PM peak hours, one intersection would result in less delay, and six intersections would result in greater delay. This alternative would result in less-than-significant impacts, similar to the proposed project. *(Similar)*

Table 7-4 Intersection Levels of Service – Existing Plus Project

#	Intersection	Control	Peak Hour	Existing Conditions		Existing with Proposed Project		Alternative 3 - No 53rd St Extension	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
1	50th Street & F Street	AWSC	AM	A	7.4	A	7.2	A	7.3
			PM	A	7.4	A	7.3	A	7.3
2	51st Street & F Street	SSSC	AM	A (A)	2.7 (9.0)	A (A)	4.3 (9.4)	A (A)	4.6 (9.5)
			PM	A (A)	2.2 (9.0)	A (A)	4.9 (9.6)	A (A)	5.2 (9.6)
3	53rd Street & F Street	AWSC	AM	A	8.2	A	7.3	A	7.3
			PM	A	8.2	A	7.5	A	7.7
4	Elvas Avenue & F Street	SSSC	AM	A (B)	2.3 (10.5)	A (B)	1.0 (10.2)	A (B)	1.0 (10.2)
			PM	A (B)	2.1 (10.9)	A (B)	1.7 (10.7)	A (B)	1.6 (10.7)
5	50th Street & H Street	SSSC	AM	A (C)	1.5 (20.8)	A (C)	1.3 (19.7)	A (C)	1.4 (20.1)
			PM	A (D)	1.6 (25.9)	A (D)	1.7 (26.0)	A (D)	1.8 (26.2)
6	51st Street & H Street	SSSC	AM	A (D)	2.4 (27.6)	A (D)	2.3 (26.4)	A (D)	2.4 (27.2)
			PM	A (D)	2.1 (27.1)	A (D)	2.7 (29.8)	A (D)	2.9 (31.9)
7	53rd Street & H Street	Signal	AM	A	4.1	A	3.6	A	3.4
			PM	A	6.7	A	5.5	A	5.4
8	Coloma Way & D Street	AWSC	AM	A	7	A	7	A	7
			PM	A	7.3	A	7.3	A	7.3
9	51st Street & C Street	SSSC	AM	A (A)	2.6 (4.8)	A (A)	2.1 (4.9)	A (A)	4.0 (9.6)
			PM	A (A)	1.9 (5.1)	A (A)	1.5 (5.5)	A (A)	5.7 (9.5)
10	Elvas Avenue & C Street	SSSC	AM	A (B)	1.3 (10.9)	A (B)	1.4 (11.1)	A (B)	1.4 (11.1)
			PM	A (B)	1.3 (10.9)	A (B)	1.4 (11.2)	A (B)	1.4 (11.2)
11	Coloma Way/50th Street & E Street	SSSC	AM	A (A)	3.3 (9.1)	A (A)	2.8 (8.9)	A (A)	3.1 (8.9)
			PM	A (A)	2.8 (9.0)	A (A)	1.4 (9.0)	A (A)	1.6 (9.0)

Table 7-4 Intersection Levels of Service – Existing Plus Project

#	Intersection	Control	Peak Hour	Existing Conditions		Existing with Proposed Project		Alternative 3 - No 53rd St Extension	
				Level of Service	Average Delay [1]	Level of Service	Average Delay [1]	Level of Service	Average Delay [1]
12	F Street & Western Hospital Driveway	SSSC	AM	A (A)	0.9 (1.4)	DNE	DNE	DNE	DNE
			PM	A (A)	0.2 (0.4)	DNE	DNE	DNE	DNE
13	F Street & Eastern Hospital Driveway	SSSC	AM	A (A)	0.2 (0.2)	DNE	DNE	DNE	DNE
			PM	A (A)	0.0 (0.0)	DNE	DNE	DNE	DNE
14	F Street & Project Access/ Middle Hospital Driveway	SSSC	AM	A (A)	2.7 (9.5)	A (A)	1.0 (8.9)	A (A)	2.1 (9.1)
			PM	A (A)	2.6 (9.2)	A (A)	1.2 (8.9)	A (A)	2.1 (9.2)
15	53rd Street & 51st Street/D Street	SSSC	AM	DNE	DNE	A (A)	1.1 (8.5)	A (A)	1.5 (8.5)
			PM	DNE	DNE	A (A)	1.1 (8.6)	A (A)	1.6 (8.6)

Notes: AWSC = All Way Stop Control, SSSC = Side Street Stop Control, DNE - Does Not Exist
[1] For signalized and all-way stop control intersections, average intersection delay is reported in seconds per vehicle for all approaches. For side-street stop controlled intersections, the delay and LOS for worse movement is shown in parentheses next to the average intersection delay and LOS.
Source: Kittelson & Associates, 2013

Long-term operational noise levels were modeled for the No 53rd Street Alternative. Please see Table 5.7-15 under Impact 5.7-6 in Section 5.7, “Noise,” for the results of this modeling. Operation-related noise levels under Alternative 3 would be similar to those under the Proposed Project. As shown in Table 5.7-15, cumulative future traffic under the No 53rd Street Extension Alternative would not result in substantial increases in noise along any roadway segments, compared to existing conditions. Similar to the Proposed Project, the highest increase in ambient noise levels under Alternative 3 would be 1.7 dBA L_{dn}.

CONCLUSION

Alternative 3 would result in similar impacts as those identified under the proposed project. This alternative would meet most of the objectives of the project by providing a range of new housing types similar in scope and scale to the existing neighborhood, utilizing an infill location and its proximity to the urban core, contributing to the overall character and livability of the surrounding neighborhood, creating a pedestrian-friendly walkable neighborhood, and providing a diverse mix of open space areas and parks. However, although Alternative 3 would provide access to the new development, it would not connect the existing grid network to the extent that would occur under the proposed project, because Alternative 3 would not provide the extension of 53rd Street onto and across the project site.

7.3.4 COMPARISON OF ALTERNATIVES

Table 7-5 summarizes the environmental analyses provided above for the project alternatives.

Table 7-5 Comparison of the Environmental Impacts of the Alternatives in Relation to the Proposed Project

Environmental Topic	Proposed Project	No Project/No Development Alternative	No Project/No Action Alternative	No 53rd Street Extension Alternative
Aesthetics	LTS	LTS (Greater)	LTS (Greater)	LTS (Similar)
Air Quality	LTS	LTS (Less)	NI (Less)	LTS (Similar)
Biological Resources	LTSM	SU (Greater)	NI (Less)	LTSM (Similar)
Climate Change	LTS	LTS (Less)	NI (Less)	LTS (Similar)
Cultural Resources	LTSM	LTSM (Similar)	NI (Less)	LTSM (Similar)
Hazards and Hazardous Materials	LTSM	LTSM (Similar)	LTS (Greater)	LTSM (Similar)
Noise	SU	SU (Less)	NI (Less)	SU (Similar)
Transportation and Traffic	LTSM	LTSM (Similar)	LTS (Less)	LTSM (Similar)
Public Services and Recreation	LTS	NI (Less)	LTS (Greater)	LTS (Similar)
Utilities and Service Systems	LTS	LTS (Less)	NI (Less)	LTS (Similar)
Meet Project Objectives?	Yes	No	No	Mostly

Impact Status:
NI=No Impact
LTS = Less Than Significant Impact
LTSM = LTS with Mitigation
SU = Significant and Unavoidable
Source: Data compiled by Ascent Environmental in 2013

7.3.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) states that when the no project alternative is identified as the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives. The environmentally superior alternative would be the No Project/No Action Alternative because it would not result in new impacts on the project site, and it would avoid the significant and unavoidable noise impact associated with the project. However, as discussed above, the No Project/No Action Alternative would not achieve any of the project's objectives. The proposed project would be environmentally similar to the No 53rd Street Extension Alternative because the two alternatives would result in similar impacts. Compared to the proposed project, under the No 53rd Street Extension Alternative eight intersections would result in the same average delay during the AM and PM peak hours, one intersection would result in less delay, and six intersections would result in greater delay.

7.4 ALTERNATIVES CONSIDERED BUT NOT ANALYZED IN DETAIL

State CEQA Guidelines Section 15126.6(c) provides the following guidance in selecting a range of reasonable alternatives for the project. The range of potential alternatives for the project shall include those that could feasibly accomplish most of the basic objectives of the project, and could avoid or substantially lessen one or more of the significant effects. The EIR should also identify any alternatives that were considered by the lead agency, but were rejected during the planning or scoping process and briefly explain the reasons underlying the lead agency's determination.

The following describes other alternatives considered by the City of Sacramento but dismissed from further evaluation in this Draft EIR, and a brief description of the reasons for their rejection.

7.4.1 SEISMIC UPGRADE AND CONTINUED MEDICAL OPERATION

In order to continue operations as a medical facility, Sutter Memorial Hospital would be required to complete seismic upgrade to comply with SB 1953. An alternative was considered to seismically upgrade the existing Sutter Memorial Hospital and continue its use as a hospital. However, the owners of the hospital, Sutter Medical Center, Sacramento (SMCS determined that the Sutter Memorial Hospital facility would not be cost-effectively renovated to meet SB 1953 standards. This alternative was considered but dismissed in the July 2005 SMCS Project EIR, and the SMCS project was ultimately approved (and its construction is nearly complete). It is logical to assume that seismic upgrades that meet the requirements of SB 1953 would be equally infeasible by other entities (if the buildings were sold to another hospital operator). Therefore, this alternative was determined to be infeasible and is not discussed in further detail.

7.4.2 RESALE AND REUSE OF PROPERTY

In this alternative, the option of selling the property for some other use was considered. Potential other uses could include commercial or residential uses. However, reuse of the property would require extensive renovations because the hospital building could not be used as a medical facility that would be subject to SB 1953. Reuse of the property for commercial uses or residential uses (such as condominiums or a long-term senior-care facility) would result in either demolition of the buildings or renovations to reconfigure a hospital building and associated facilities. The project applicant performed a preliminary screening of on-site buildings for potential repurposing and concluded the 73,800 SF North Tower (Phase III North Wing) was the only building warranting further evaluation. This decision was largely supported by a structural assessment of the buildings initiated by Sutter in 1997 and an evaluation of floor plate heights, exterior precast paneling, and column spacing. An architect and contractor were hired to assess the feasibility of repurposing the North Wing for multi-family residential uses. That assessment determined that the renovation costs made repurposing the North Tower infeasible. In addition, following an evaluation and consultation with real estate brokers regarding the potential for resale, this option was determined to be infeasible because of the unlikelihood that Sutter Community Hospitals of Sacramento could sell the property.

7.4.3 OFF-SITE ALTERNATIVE

The proposed project is a redevelopment project, and off-site alternatives were not considered for further evaluation because an off-site alternative would not meet the project objective of redeveloping the project site. The removal and relocation of uses from the existing Sutter Memorial Hospital is a separate project that has been approved and is underway. As part of the Sutter Medical Center, Sacramento project, a new Women's and Children's Center has been constructed, and operations are expected to be moved in 2014. Section 15126.6(f)(2)(B) of the CEQA Guidelines states: "If the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR." Because the uses on the project site would be discontinued, leaving the need for redevelopment of the site, a feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist.

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