



Draft Environmental Impact Report

Capitol Annex Project

State Clearinghouse No. 2019049066

Prepared for:

California Legislature



September 9, 2019

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Joint Rules Committee
State Capitol, Room 3016
Sacramento, CA 95814

and



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LIST OF ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AB	Assembly Bill
ACM	asbestos-containing material
ADA	Americans with Disabilities Act
af	acre-feet
AFV	alternative fuel vehicle
afy	acre-feet per year
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act of 1972
ASTM	American Society for Testing and Materials
BACT	best available control technology
bgs	below ground surface
Blueprint	Sacramento Region Blueprint
BMP	best management practice
C&D	construction and demolition
CAA	federal Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CALGreen Code	California Green Building Standards Code
California Energy Code	State's CCR Title 24, Part 6, Building Energy Efficiency Standards
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	1997 Capitol Area Plan
CAP	Sacramento Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CBD	Central Business District
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
CESA	California Endangered Species Act
cfs	cubic feet per second
CHBC	California State Historical Building Code
CHMIRS	California Hazardous Materials Incident Reporting System
CHP	California Highway Patrol
City	City of Sacramento
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CPS	Capitol Protection Section
CRHR	California Register of Historical Resources
CSGBD	California State Government Building District
CSO	Combined Sewer Overflow
CSS	combined sewer system
CSS	combined storm sewer
CSSIP	Combined Sewer System Improvement Plan
CVFPB	Central Valley Flood Protection Board
CVFPP	Central Valley Flood Protection Plan
CVRWQCB	Central Valley RWQCB
CWA	federal Clean Water Act
CWTP	Combined Wastewater Treatment Plant
dB	decibels
DDT	dichlorodiphenyltrichloroethane
Delta	Sacramento–San Joaquin Delta
DGS	California Department of General Services
DOT	U.S. Department of Transportation
Draft EIR	draft environmental impact report
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
ECHO	Enforcement & Compliance History Information
EGU	electric generating unit
EIR	Environmental Impact Report
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency

EPAct	Energy Policy Act of 1992
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	environmental site assessment
EV	electric vehicle
FEMA	Federal Emergency Management Agency
Final EIR	Final Environmental Impact Report
FTA	Federal Transit Administration
FWTP	Fairbairn Water Treatment Plant
Geocon	Geocon Consultants
GHG	greenhouse gas
GSF	gross square feet
GWP	global warming potential
HAP	hazardous air pollutant
HCM	Highway Capacity Manual
HVAC	heating/ventilation/air conditioning
HWTS	Hazardous Waste Tracking System
Hz	hertz
I-5	Interstate 5
IEPR	Integrated Energy Policy Report
JRC	Joint Rules Committee
km	kilometers
kV	kilovolt
lb/day	pounds per day
LBP	lead-based paint
LCFS	Low Carbon Fuel Standard
LDL	Larson Davis Laboratories
L _{dn}	Day-Night Level
LEED	U.S. Green Building Council's Leadership in Energy and Environmental
L _{eq}	Equivalent Continuous Sound Level
L _{max}	Maximum Sound Level
LOB	Legislative Office Building
LOS	level of service

LTCP	long-term control plan
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
mgd	million gallons per day
MLD	Most Likely Descendant
MMI	Modified Mercalli Intensity
MMTCO ₂ e	million metric tons of carbon dioxide equivalent
MOU	memorandum of understanding
mPa	micro-Pascals
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MSA	Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area
MTCO ₂ e	metric tons of carbon dioxide equivalent
MTIP	Metropolitan Transportation Improvement Program
MTP/SCS	Metropolitan Transportation Plan/Sustainable Communities Strategy
Mw	Moment Magnitude scale
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
NCIC	North Central Information Center
NEHRP	National Earthquake Hazards Reduction Program
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO	nitric oxide
NO ₂	nitrogen dioxide
NOP	Notice of Preparation
NO _x	oxides of nitrogen
NO _x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHP	Office of Historic Preservation
OPR	California Governor's Office of Planning and Research
OPR	Governor's Office of Planning and Research
OSHA	Occupational Safety and Health Administration

PCB	polychlorinated biphenyls
PCC	Public Contract Code
PG&E	Pacific Gas and Electric Company
PIA	Priority Investment Area
PM ₁₀	respirable particulate matter with aerodynamic diameter of 10 micrometers or less
PM _{2.5}	fine particulate matter with aerodynamic diameter of 2.5 micrometers or less
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
PPV	peak particle velocity
PRC	Public Resources Code
RCRA	Resource Conservation and Recovery Act of 1976 {42 USC 6901 et seq.}
REC	recognized environmental conditions
Regional San WWTP	Sacramento Regional Wastewater Treatment Plant
RMS	root-mean-square
ROG	reactive organic gases
RWQCB	regional water quality control board
SACOG	Sacramento Area Council of Governments
SacRT	Sacramento Regional Transit District
SDWA	Safe Drinking Water Act
SFD	Sacramento Fire Department
SGMA	Sustainable Groundwater Management Act
SMAQMD	Sacramento Metropolitan Air Quality Management District
SMUD	Sacramento Municipal Utility District
SO ₂	sulfur dioxide
SOIS	Secretary of the Interior's Standards
SPCC	Spill Prevention, Control, and Countermeasure
SPD	Sacramento Police Department
SPL	sound pressure level
SR	State Route
SRCSD	Sacramento Regional County Sanitation District
SRWTP	Sacramento River Water Treatment Plant
STAA	Surface Transportation Assistance Act
SVAB	Sacramento Valley Air Basin
SWPPP	storm water pollution prevention plan
SWRCB-DDW	State Water Resources Control Board Division of Drinking Water
TAC	toxic air contaminant
TMDL	total maximum daily load

U.S. 50	U.S. Route 50
UBC	Uniform Building Code
USC	U.S. Code
USFWS	U.S. Fish and Wildlife Service
UST	underground storage tanks
UWMP	urban water management plan
UWMPA	Urban Water Management Planning Act
Vdb	vibration decibels
VMT	vehicle miles traveled
WQO	Water Quality Objective
ZEV	zero-emission vehicle
ZNE	Zero Net Energy

1 INTRODUCTION

This draft environmental impact report (Draft EIR) evaluates the environmental impacts of the proposed Capitol Annex Project and has been prepared under the direction of the California Department of General Services (DGS) as the lead agency in accordance with the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines. DGS has prepared the EIR in collaboration with the Joint Committee on Rules (JRC) of the California State Senate and Assembly, which is the entity that would implement the project. This chapter of the Draft EIR provides information on the following:

- ▶ project requiring environmental analysis (synopsis);
- ▶ type, purpose, and intended uses of the Draft EIR;
- ▶ scope of the Draft EIR;
- ▶ agency roles and responsibilities; and
- ▶ standard terminology.

1.1 PROJECT REQUIRING ENVIRONMENTAL ANALYSIS

The following is a synopsis of the project characteristics. For further information on the proposed project, see Chapter 3, "Project Description." The JRC is responsible for the planning, permitting, and implementation of the Capitol Annex Project. DGS Real Estate Services Division has been asked by JRC to provide specific services relative to CEQA and other specific services as specified by agreement between JRC and DGS. The project site is bounded by L Street to the north, 10th Street to the west, N Street to the south, and 12th Street to the east. The site is State-owned property located within the Capitol Area and covered by the 1997 Capitol Area Plan (DGS 1997). The project site is occupied by the Historic Capitol and the Annex building, associated parking beneath the Annex building, trees and landscaping, and hardscape pathways. The project would involve three primary components, (1) demolition and reconstruction of the existing Annex, (2) construction of a new underground visitor/welcome center on the west side of the Historic Capitol, and (3) construction of a new underground parking garage south of the Historic Capitol. The new Annex building would provide up to approximately 525,000 gross square feet of space, the visitor/welcome center would be approximately 40,000 square feet, and the parking garage would accommodate approximately 200 parking spaces. During demolition and construction of the Annex, the Legislature and executive branch offices and related facilities occupying the existing Annex would be temporarily located in the new 10th and O Street Office Building, which is currently under construction. The Legislature and executive staff would then return to the new Annex after construction is complete, and the 10th and O Street Office Building would be utilized as general State office space.

1.2 PURPOSE AND INTENDED USES OF THIS DRAFT EIR

According to CEQA, preparation of an EIR is required whenever it can be fairly argued, based on substantial evidence, that a proposed project may result in a significant environmental impact. An EIR is an informational document used to inform public-agency decision makers and the general public of the significant environmental impacts of a project, identify possible ways to minimize the significant impacts, and describe reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

The visitor/welcome center generally is designed to a greater level of detail than the new Annex and underground parking garage. This is primarily because the visitor/welcome center is the project component proposed to be constructed first, and it must be completed before demolition of the existing Annex is initiated (see Chapter 3,

“Project Description” for more information on project sequencing). The visitor/welcome center has been designed and planned to a level of detail sufficient to support all necessary permits and approvals. If this EIR is certified and the project is approved, no further CEQA analysis is anticipated before construction of the visitor/welcome center. For this reason, this Draft EIR’s analysis of the visitor/welcome center has been prepared to meet the requirements of a project EIR as defined by Section 15161 of the State CEQA Guidelines. A project EIR focuses on the changes in the physical environment that would result from the implementation of a project, including its planning, construction, and operation. The State’s intention in identifying the EIR’s analysis of the visitor/welcome center as a project EIR is that no further environmental analysis would be required for additional regulatory approvals following approval of the project, absent conditions requiring a subsequent EIR, a supplement to the EIR, or an addendum. (See State CEQA Guidelines Sections 15162–15164.)

While fewer design details of the new Annex and the underground parking garage (as compared to the visitor/welcome center) were available at the time of publication of this Draft EIR, information about these elements and their characteristics (e.g., square footage, utility demands, number of occupants, types of internal facilities) is generally sufficient to permit analysis that meets the requirements of a project EIR as defined in Section 15161 of the State CEQA Guidelines. The possible exception is historic architectural resources. Without detailed information on the exterior appearance of the new Annex and how it would integrate with the Historic Capitol Building, and without the specific location and footprint of the underground parking garage, entrance and exit roadways, and facilities, conclusions regarding the consistency of the project with historic architectural resources, and the Historic Capitol in particular, cannot be fully confirmed. In the future, when design of the new Annex and underground parking is more fully developed, DGS will examine via an initial study and review of this EIR whether any additional CEQA compliance documentation must be prepared. If, as a result of this review process it is found that construction or operation of the new Annex or underground parking garage would result in (a) new significant environmental effects that are not examined in this EIR, or (b) or a substantial increase in the severity of significant environmental effects previously identified in this EIR, then additional CEQA analysis will be conducted.

1.3 SCOPE OF THIS DRAFT EIR

This Draft EIR includes an evaluation of the following environmental issue areas as well as other CEQA-mandated issues (e.g., cumulative impacts, growth-inducing impacts, significant unavoidable impacts, alternatives):

- ▶ Land Use;
- ▶ Transportation and Circulation;
- ▶ Utilities and Service Systems;
- ▶ Air Quality;
- ▶ Greenhouse Gas Emissions and Climate Change;
- ▶ Energy;
- ▶ Noise and Vibration;
- ▶ Geology and Soils;
- ▶ Hydrology and Water Quality;
- ▶ Hazardous Materials and Public Health;
- ▶ Archaeological, Historical, and Tribal Cultural Resources;
- ▶ Biological Resources;
- ▶ Public Services and Recreation; and
- ▶ Aesthetics, Light, and Glare.

In accordance with the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the Capitol Annex Project; review of applicable planning documents and CEQA documentation; field work; feedback from public and agency consultation; comments received during a public scoping meeting held on May 7, 2019; and comments received on the Notice of Preparation (NOP) (see Appendix A of this Draft EIR).

The NOP was distributed on April 11, 2019, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. A notice was also printed in the Sacramento Bee on April 11, 2019. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for the Capitol Annex Project was being prepared and to solicit input on the scope and content of the environmental document. As a result of the review of existing information and the scoping process, it was determined that each of the issue areas listed above should be evaluated fully in this Draft EIR. Further information on the NOP and scoping process is provided below in Section 1.5, "Public Review Process."

1.4 AGENCY ROLES AND RESPONSIBILITIES

1.4.1 LEAD AGENCY

DGS is the lead agency under CEQA responsible for ensuring that the requirements of CEQA have been met. After the EIR public-review process is complete, the Director of DGS will determine whether to certify the EIR (see State CEQA Guidelines Sections 15090) and approve the project. The JRC is the entity implementing the project.

1.4.2 TRUSTEE AND RESPONSIBLE AGENCIES

A trustee agency is a State agency that has jurisdiction by law over natural resources that are held in trust for the people of the State of California. The only trustee agency that has jurisdiction over resources potentially affected by the project is the California Department of Fish and Wildlife (CDFW).

Responsible agencies are public agencies, other than the lead agency, that have discretionary-approval responsibility for reviewing, carrying out, or approving elements of a project. Responsible agencies should participate in the lead agency's CEQA process, review the lead agency's CEQA document, and use the document when making decisions on project elements. For example, the City of Sacramento will use this EIR for discretionary actions such as sidewalk and roadway encroachment permits and permits for connections to City-operated utilities. Agencies that may have responsibility for, or jurisdiction over, implementation of elements of the project include the following:

STATE AGENCIES

- ▶ California State Parks, Office of Historic Preservation (OHP)
- ▶ California Highway Patrol, Capitol Protection Section (CPS)
- ▶ California Air Resources Board (CARB)
- ▶ California Department of Fish and Wildlife (CDFW)
- ▶ Central Valley Regional Water Quality Control Board (RWQCB) (Region 5)

REGIONAL AND LOCAL AGENCIES

- ▶ City of Sacramento
- ▶ Sacramento Air Quality Management District (SMAQMD)

1.4.3 REQUIRED PERMITS AND APPROVALS

The following list identifies permits and other approval actions likely to be required before implementation of individual elements of the proposed project.

STATE ACTIONS/PERMITS

California State Parks, Office of Historic Preservation: Review of project design pursuant to PRC Sections 5024(f) and 5024.5 regarding historic resources and consultation regarding the project's potential to adversely affect historic buildings that are adjacent to or in the vicinity of the site.

Central Valley Regional Water Quality Control Board (Region 5): National Pollutant Discharge Elimination System construction stormwater permit (Notice of Intent to proceed under General Construction Permit), discharge permit for stormwater, general order for dewatering, recycled water permit.

REGIONAL AND LOCAL ACTIONS/PERMITS

City of Sacramento: Sidewalk, roadway, and encroachment permits, permits for connections to City operated utilities.

SMAQMD: Permit to construct and permit to operate.

1.5 PUBLIC REVIEW PROCESS

As identified above in Section 1.3, "Scope of this Draft EIR," in accordance with CEQA regulations, an NOP was distributed on April 11, 2019, to responsible agencies, interested parties and organizations, and private organizations and individuals that could have interest in the project. The NOP was available at the Sacramento Central Library at 828 I Street and at the California Department of General Services office at 707 Third Street in West Sacramento. Additionally, availability of the NOP was advertised in the Sacramento Bee newspaper.

The purpose of the NOP was to provide notification that an EIR for the Capitol Annex Project was being prepared and to solicit input on the scope and content of the document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR.

This Draft EIR is being circulated for public review and comment for a period of 45 days. During this period, comments from the general public as well as organizations and agencies on environmental issues may be submitted to the lead agency.

An informational workshop will be held on the Draft EIR on September 17, 2019, between 4:30 p.m. and 6:30 p.m. at the DAW Training Room 925 L Street, Sacramento, CA 95814. A public hearing will be held on the Draft EIR on October 15, 2019, between 4:30 p.m. and 6:30 p.m. at the Tsakopoulos Library Galleria (East Room), 828 I Street, Sacramento, CA 95814. Upon completion of the public review and comment period, a Final Environmental Impact Report (Final EIR) will be prepared that will include both written and oral comments on the Draft EIR received during the public-review period, responses to those comments, and any revisions to the Draft EIR made in response to public comments. The Draft EIR and Final EIR will comprise the EIR for the project.

The following text is provided as required by Section 21189.54 of the Public Resources Code:

THIS EIR IS SUBJECT TO CHAPTER 6.7 (COMMENCING WITH SECTION 21189.50) OF DIVISION 13 OF THE PUBLIC RESOURCES CODE, WHICH PROVIDES, AMONG OTHER THINGS, THAT THE LEAD AGENCY NEED NOT CONSIDER CERTAIN COMMENTS FILED AFTER THE CLOSE OF THE PUBLIC COMMENT PERIOD FOR THE DRAFT EIR. ANY JUDICIAL ACTION CHALLENGING THE CERTIFICATION OF THE EIR OR THE APPROVAL OF THE PROJECT DESCRIBED IN THE EIR IS SUBJECT TO THE PROCEDURES SET FORTH IN

SECTIONS 21189.51 TO 21189.53, INCLUSIVE, OF THE PUBLIC RESOURCES CODE. A COPY OF CHAPTER 6.7 (COMMENCING WITH SECTION 21189.50) OF DIVISION 13 OF THE PUBLIC RESOURCES CODE IS INCLUDED IN APPENDIX B TO THIS EIR.

Before approving the Capitol Annex Project, the lead agency, DGS, 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.

1.6 DRAFT EIR ORGANIZATION

This Draft EIR is organized into chapters, as identified and briefly described below. Chapters are further divided into sections (e.g., Chapter 4, "Environmental Impacts and Mitigation Measures" and Section 4.7, "Energy"):

Chapter 1, "Introduction": This chapter provides a description of the lead and responsible agencies, the legal authority and purpose for the document, and the public review process.

Chapter 2, "Executive Summary": This chapter introduces the Capitol Annex Project; provides a summary of the environmental review process, effects found not to be significant, and key environmental issues; and lists significant impacts and mitigation measures to reduce significant impacts to less-than-significant levels.

Chapter 3, "Project Description": This chapter describes the location, background, and goals and objectives for the Capitol Annex Project, and describes the project elements in detail.

Chapter 4, "Environmental Impacts and Mitigation Measures": The sections within this chapter evaluate the expected environmental impacts generated by the Capitol Annex Project, arranged by subject area (e.g., Land Use, Hydrology and Water Quality). Within each subsection of Chapter 4, the regulatory background, existing conditions, analysis methodology, and thresholds of significance are described. The anticipated changes to the existing conditions after development of the project are then evaluated for each subject area. For any significant or potentially significant impact that would result from project implementation, mitigation measures are presented and the level of impact significance after mitigation is identified. Environmental impacts are numbered sequentially within each section (e.g., Impact 4.2-1, Impact 4.2-2, etc.). Any required mitigation measures are numbered to correspond to the impact numbering; therefore, the mitigation measure for Impact 4.2-2 would be Mitigation Measure 4.2-2.

Chapter 5, "Cumulative Impacts": This chapter provides information required by CEQA regarding cumulative impacts that would result from implementation of the Capitol Annex Project together with other past, present, and probable future projects.

Chapter 6, "Other CEQA Sections": This chapter evaluates growth-inducing impacts and irreversible and irretrievable commitment of resources, and discloses any significant and unavoidable adverse impacts.

Chapter 7, "Alternatives": This chapter evaluates alternatives to the Capitol Annex Project, including alternatives considered but eliminated from further consideration, the No Project Alternative, and two alternative development options. The environmentally superior alternative is identified.

Chapter 8, "References": This chapter identifies the organizations and persons consulted during preparation of this Draft EIR and the documents and individuals used as sources for the analysis.

Chapter 9, "Report Preparers": This chapter identifies the preparers of the document.

1.7 STANDARD TERMINOLOGY

This Draft EIR uses the following standard terminology:

"No impact" means no change from existing conditions (no mitigation is needed).

"Less-than-significant impact" means no substantial adverse change in the physical environment (no mitigation is needed).

“Potentially significant impact” means an impact that might cause a substantial adverse change in the environment (mitigation is recommended because potentially significant impacts are treated as significant).

“Significant impact” means an impact that would cause a substantial adverse change in the physical environment (mitigation is recommended).

“Significant and unavoidable impact” means an impact that would cause a substantial adverse change in the physical environment and that cannot be avoided, even with the implementation of all feasible mitigation.

2 EXECUTIVE SUMMARY

2.1 INTRODUCTION

This summary is provided in accordance with California Environmental Quality Act Guidelines (State CEQA Guidelines) Section 15123. As stated in Section 15123(a), “an EIR [environmental impact report] shall contain a brief summary of the proposed action and its consequences. The language of the summary should be as clear and simple as reasonably practical.” As required by the guidelines, this chapter includes (1) a summary description of the Capitol Annex Project, (2) a synopsis of environmental impacts and recommended mitigation measures (Table 2-1), (3) identification of the alternatives evaluated and of the environmentally superior alternative (Table 2-2), and (4) a discussion of the areas of controversy associated with the project.

2.2 SUMMARY DESCRIPTION OF THE PROJECT

2.2.1 Project Location

The proposed Capitol Annex Project site is located in downtown Sacramento on the Capitol grounds, bounded by 10th Street on the west, N Street on the south, L Street on the north, and 12th Street on the east (roughly following the alignment of the eastern edge of 12th Street across Capitol Park) (Figures 2-1 and 2-2). The site encompasses portions of the western half of Capitol Park, but most of the park is located east of the project site between 12th Street and 15th Street.

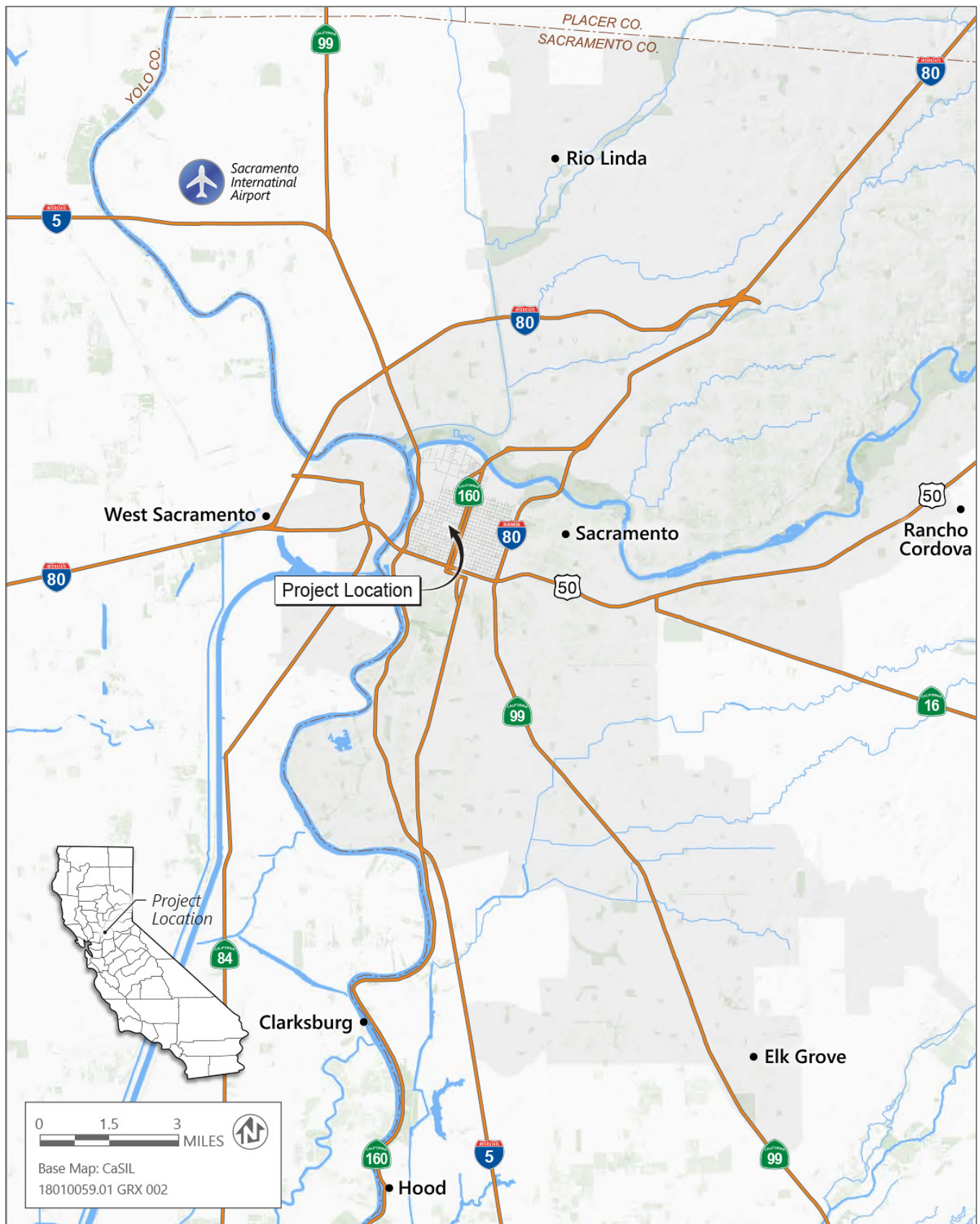
2.2.2 Background and Need for the Project

The historical portion of the Capitol Building, referred to as the “Capitol” or “Historic Capitol” began construction in 1860 and was completed in 1874, originally housing all branches of government: executive (Governor and other elected State officers), legislative (Senate and Assembly), and judicial (California Supreme Court), as well as the state library and archives. After many decades of alterations and departments expanding and moving to other buildings, the Capitol Annex Building (Annex) was constructed between 1949 and 1951. The six-story and roughly 325,000-square-foot Annex was connected to the west side of the Historic Capitol, resulting in the appearance of a single continuous building.

The Annex supports the Governor and executive staff, the Lieutenant Governor, and the Legislative Branch of Government, including offices for 115 of California’s 120 State Lawmakers. The other five state lawmaker offices are in the adjacent Historic Capitol. With its physical connection to the Historic Capitol, the Annex is an important public asset, as it provides a venue for California’s public to participate in deliberative, democratic governmental processes with the Governor, State Lawmakers, and their policy and other staff. However, the building’s deficiencies have become impediments to efficient Government.

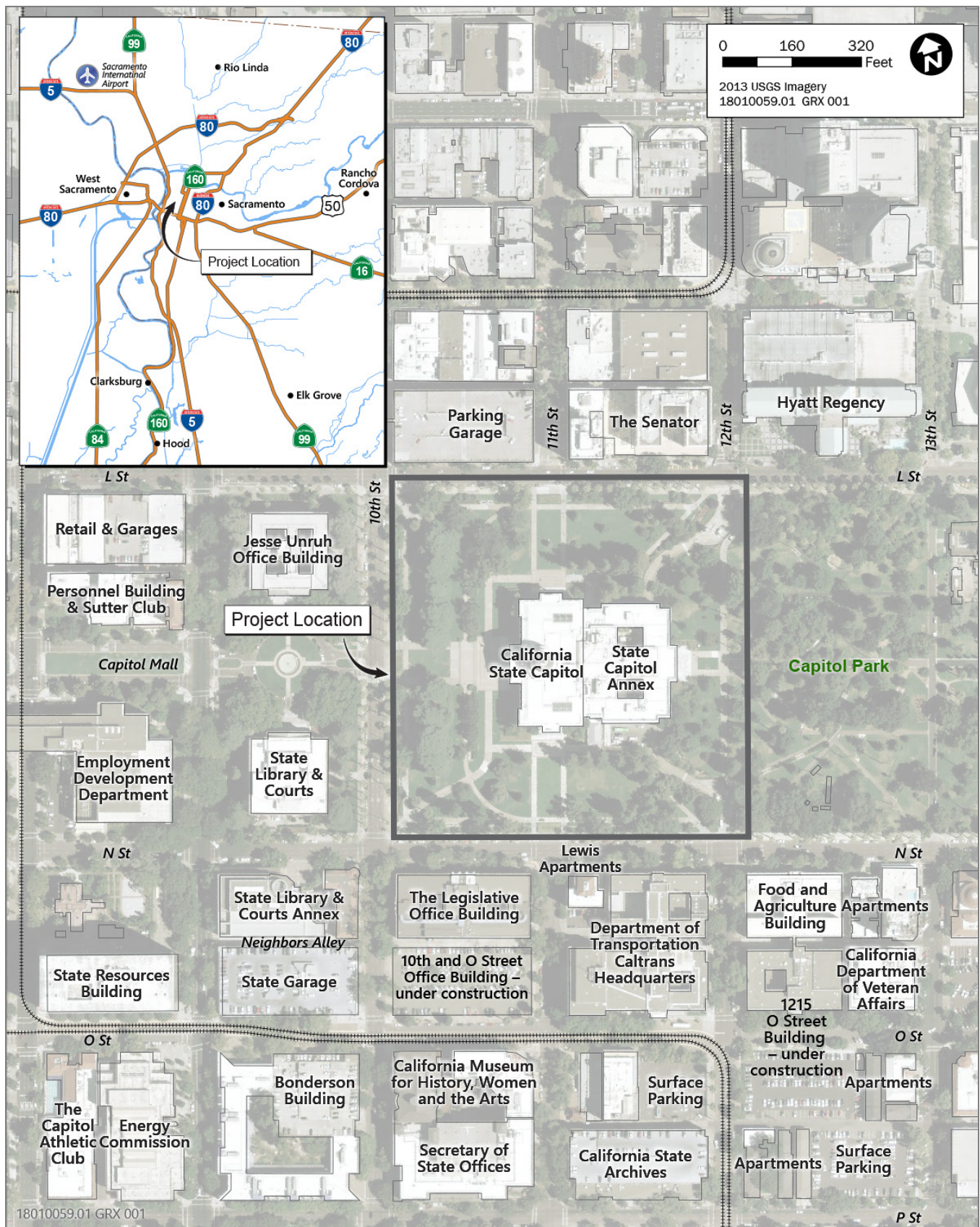
The Annex was originally constructed in accordance with the 1949 Uniform Building Code (UBC). The code in effect today is the 2016 California Building Code (CBC). While the mission of the code has largely remained the same, considerable changes have been made since the 1949 UBC edition and new regulations and standards related to building facilities and performance have been adopted. Identified deficiencies in the Annex relative to current building standards and building operations include:

- ▶ life safety/building code deficiencies (e.g., fire detection, alarm, and fire suppression systems);
- ▶ non-compliance with Americans with Disabilities Act (ADA) standards;
- ▶ non-compliance with energy efficiency standards;



Source: Prepared by Ascent Environmental in 2019

Figure 2-1 Regional Location



Source: Sacramento County 2008. Adapted by Ascent Environmental in 2019.

Figure 2-1 Site Location

- ▶ overcrowding;
- ▶ aging and failing infrastructure (e.g., plumbing, electrical, heating/cooling); and
- ▶ insufficient public and working space.

Responding to the need to replace or renovate the Annex, in 2016 the Legislature passed SB 836. SB 836 provides funding for a project to address deficiencies in the existing State Capitol Building Annex. Passage of SB 836 aligned with the need identified in the Governor's 2016 Five-Year Infrastructure Plan to modernize the Annex. In 2018, SB 840 and AB 1826 were passed, providing further funding and authorizations for the Annex project. AB 2667 was also passed in 2018, requiring the Annex Project to reflect symbols found in the Historic Capitol representing California's heritage and to promote education and hospitality to visitors.

2.2.3 Project Objectives

Consistent with, and in furtherance of SB 836, SB 840, AB 1826, and AB 2667, the objectives of the Capitol Annex Project are to

- ▶ Provide an accessible, efficient, and safe environment for State employees, elected officials, and the public they serve.
- ▶ Integrate the new State development with the existing surroundings.
- ▶ Develop sustainable and energy efficient facilities.
- ▶ Provide modern facilities that meet current construction standards and codes.
- ▶ Continue to provide secure parking for legislative and executive branch officials.
- ▶ Provide meeting space for legislative and executive functions of sufficient size to support efficient performance of State business and with modern communications technology.
- ▶ Continue to provide Annex facilities directly adjacent to the Historic Capitol.
- ▶ Promote education, hospitality, and a welcoming environment for the visiting public.

2.2.4 Characteristics of the Project

LAND USES AND LAND USE DESIGNATIONS

The Capitol Building and Annex are surrounded by Capitol Park. The entire Capitol Park, including the Historic Capitol and Annex, is on land owned by the State. Monuments, memorials, other points of interest, landscaping, and ornamental trees are located throughout the park and on all sides of Capitol Building and Annex. Walkways within the park surround the Capitol and Annex building on all sides. The Capitol Area Plan (CAP) (DGS 1997) designates landscaped portions of Capitol Park as "Parks and Open Space," but designates walkways, hardscape, and the Capitol Building and Annex as "Other Existing Use." Land uses surrounding the project site consist of the State-owned Jesse Unruh Office Building and the Library and Courts Building across 10th Street to the west; a City of Sacramento operated parking structure with ground floor retail and "The Senator" office building across L Street to the north; Capitol Park to the east; and the LOB, the Lewis apartment building, and Caltrans Headquarters building across N Street to the south (Figure 2-2).

PROJECT PHASING

Implementation of the Capitol Annex project would be completed in a sequence of steps. These steps are identified here, then described in more detail below.

1. Before Annex demolition and construction can begin, the Annex building must be vacated and its occupants and functions moved to a different location. During project construction, the Legislature and executive branch offices and related facilities would be temporarily located in the new 10th and O Street Office Building, currently under construction. Limited legislative functions, such as caucus offices, would be temporarily moved to existing rooms on the second floor of the Historic Capitol, and functions and staff currently in those rooms would be moved to the 10th and O Street Office Building.
2. Existing public entry/security checkpoints at the Capitol are provided at the north, south, and east sides of the Annex. When the Annex is closed for demolition, these entries/security checkpoints would be closed. To provide continued safe and efficient public entry to the Capitol while the Annex replacement is underway, and after completion of the project, the project includes the new underground visitor/welcome center on the west side of the Capitol that would provide access from the west to the Capitol (Figure 2-3). The new visitor/welcome center must be complete and operational before demolition of the existing Annex begins so that access to the Capitol from the west can be provided. Additionally, a publicly accessible entry on the north side of the Historic Capitol is proposed to facilitate entry during Annex construction. Legislators and staff moving between the Historic Capitol and the 10th and O Street Office Building may use the south entrance to the Historic Capitol once the Annex is vacated.
3. The objective is to complete the visitor/welcome center before, or concurrently with, the Legislature and executive staff moving to the 10th and O Street Office Building so that demolition of the Annex may begin immediately after it is vacated.
4. After demolition of the existing Annex, construction of the new Annex may begin, although some work outside the footprint of the existing annex (e.g., in utility alignments) may begin before demolition being completed.
5. Either concurrently with visitor/welcome center construction, or during the Annex demolition and construction process, the underground parking garage south of the Capitol Building would be excavated and constructed.

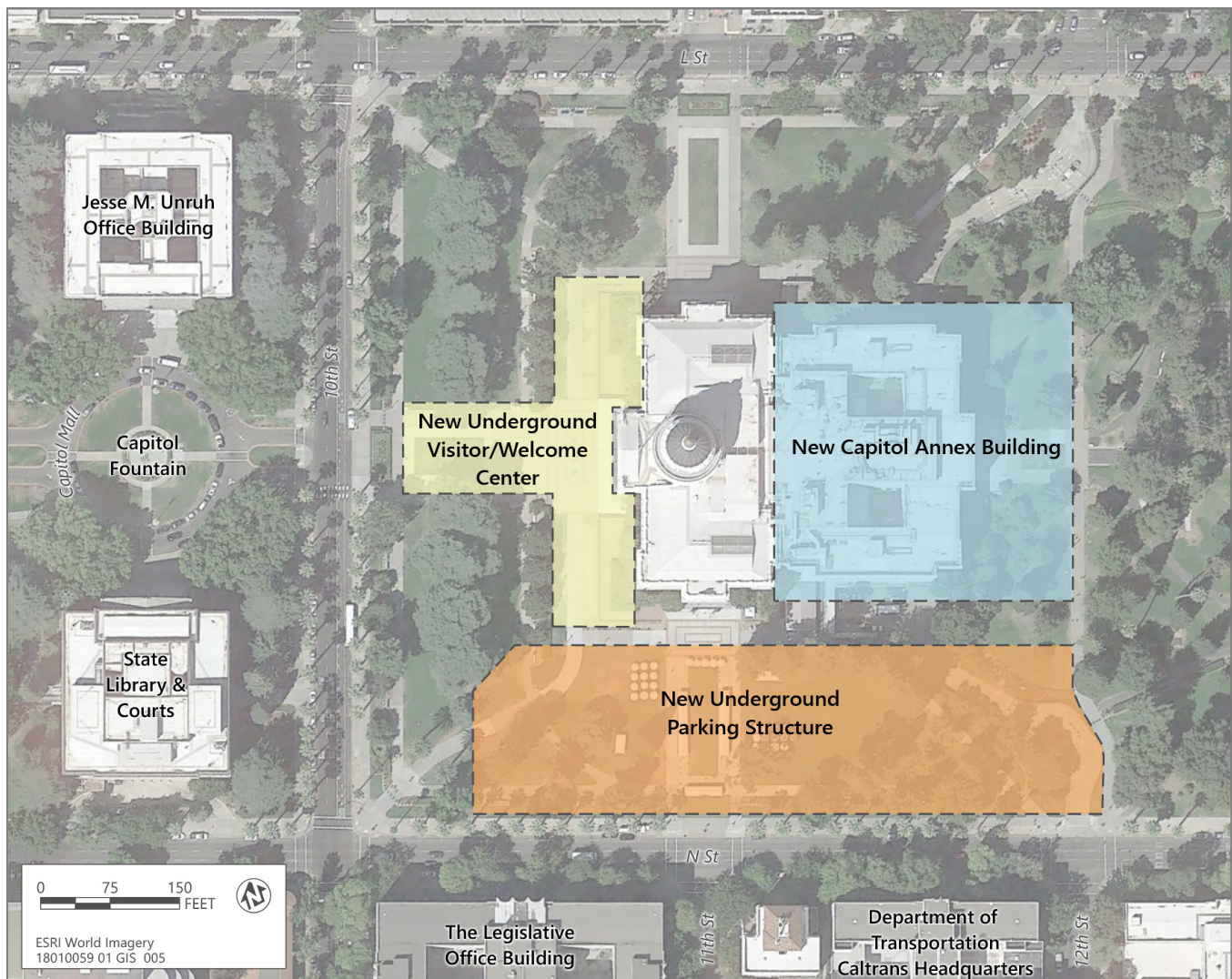
Construction of the visitor/welcome center is anticipated to begin in fall 2020. Construction of the entire project would take approximately 5 years and would be completed before the end of 2025, with the Legislature and executive branch occupying the new Annex by the end of 2025. The proposed approximate phasing of the project is as follows:

- ▶ Visitor/Welcome Center Construction – Third Quarter 2020 to Fourth Quarter 2021
- ▶ Annex Demolition – First Quarter of 2022 to Third Quarter 2022
- ▶ Annex Construction – Fourth Quarter 2022 to Fourth Quarter 2025
- ▶ Underground Parking Construction – Second Quarter 2024 to Third Quarter 2025

The construction labor force would fluctuate depending on the phase of work. However, it is estimated that during peak construction periods approximately 250-300 workers would be on the project site.

TEMPORARY OFFICE SPACE DURING ANNEX DEMOLITION AND RECONSTRUCTION

Before initiating demolition of the existing Annex, the Legislature and executive branch offices and related facilities would be temporarily located in the new 10th and O Street Office Building, which is currently under construction. The building site is located on the north side of O Street between 10th Street and 11th Street. After the new Annex is complete, the Legislature and executive staff would return to the Annex and the 10th and O Street Office Building would be used as general State office space.



Source: Adapted by Ascent Environmental in 2019

Figure 2-3 Project Annex Component

TEMPORARY ADJUSTMENTS TO HISTORIC CAPITOL OPERATIONS

Portions of the existing Annex are used to support functions critical to operation of the Legislature when it is in chambers, such as Assembly and Senate Caucus offices and space for the Assembly Chief Clerk. Space for these functions must be located near the Assembly and Senate Chambers so that they are easily accessible from these locations. When the Annex is closed for demolition, these functions would be moved to several existing rooms on the second floor of the Historic Capitol. Office furnishings and partitions within these rooms may be modified to better serve these temporary uses while the Annex project is completed; however, no historic elements, corridors, or hallways would be altered. Functions and staff currently in those rooms would be moved to the 10th and O Street Office Building.

VISITOR/WELCOME CENTER

The new visitor/welcome center would be approximately 40,000 square feet and would be located between 10th Street and the west steps of the Capitol. An above-ground entrance would be provided near 10th Street with both

stair and ADA-compliant elevator access. Visitors would then move underground, through a security checkpoint, and enter the Capitol through the basement.

The visitor/welcome center would include educational resources supporting civic engagement and improved understanding of California and its government. The visitor/welcome center would integrate with education and hospitality elements already located in the basement of the Historic Capitol such as the theater, bookstore, and restaurant. The visitor/welcome center could also act as an event space, "after hours", when the Historic Capitol is closed to the public and the visitor/welcome center is not needed as a public entrance. Currently, various locations in the Capitol, such as the Eureka Room, are used to host events such as dinners and social gatherings. The visitor/welcome center could provide another option for these types of uses.

As described above, existing public entry/security checkpoints at the Capitol are provided at the north, south, and east sides of the Annex. When the Annex is closed for demolition, these entries/security checkpoints would be closed. The new visitor/welcome center would provide continued safe and efficient public entry to the Capitol while the Annex replacement is underway, and after completion of the project, the project includes a new underground visitor/welcome center on the west side of the Capitol.

Ground disturbance for construction of the visitor/welcome center would be primarily in the area between 10th Street and the west steps of the Capitol. Excavation would reach a depth of approximately 25 feet. Upon completion of the visitor/welcome center, the temporarily disturbed portions of Capitol Park on the west side of the Capitol would be restored to existing conditions, except that a skylight or similar feature may be located in the "roof" of the visitor/welcome center (at the ground surface) to allow natural light into the center and possibly allow a view of the Historic Capitol from inside the center. Fencing, vegetation, or other materials surrounding the skylight would prevent pedestrians from walking on the skylight, creating a new landscape element on the west side of the Capitol Building.

DEMOLITION OF THE EXISTING ANNEX

The Annex is a six story, approximately 325,000 square foot building, with vehicle parking in a basement level. Demolition would include removal of any historically significant items and other features incorporated into the physical structure of the building that the State wishes to save (e.g., the metallic relief panels on the east façade). The next step would be removal of hazardous materials from the existing building such as any lead-based paint, asbestos pipe insulation, and similar materials frequently found in older buildings. After the hazardous materials abatement is complete, excavators and other heavy equipment would be used to dismantle the building. Materials would be hauled off-site and disposed of in an approved landfill or other facility authorized to accept the material. Material suitable for recycling would be separated and transported to a suitable recycling facility.

NEW ANNEX PROGRAM ELEMENTS

The new Annex would serve the same purpose as the existing Annex, providing office space, hearing rooms, conference rooms, and supporting facilities for the Legislature and executive branch. Approximately 1,700 personnel (i.e., combined elected officials, their staff, and other employees in the Capitol) work in the Annex. The number of employees would not change as a result of development of the new Annex, although some employees currently located in the LOB may move to the Annex, and vice versa. Like the existing Annex, the new Annex would be physically connected to the Historic Capitol.

The new Annex would provide approximately 525,000 gross square feet of space, compared to the 325,000 square feet in the existing Annex. The new Annex would support more and larger hearing rooms and conference rooms, more consistently sized office spaces, and more efficiently designed facilities. Although the new Annex would support more square footage than the existing building, the functions, activities, and personnel associated with the Annex would not change.

The new Annex would meet all current building codes, ADA standards, and energy efficiency standards. The building would meet or exceed LEED v4 Silver certification.

ANNEX HEIGHT, MASSING, AND ARCHITECTURAL TREATMENTS

The new Annex building height would be no taller than the parapet of the Historic Capitol and/or the base of the existing Capitol dome. The anticipated height would be approximately 125 feet, which is lower than the current colonnade level and well below the base of the dome. The new Annex would be approximately the length of the Historic Capitol and would extend east toward the existing 12th Street walkway. There would be a below grade level for public meeting spaces. The aesthetics and materials of the new Annex would be developed to be consistent and sympathetic with the Historic Capitol to create a 'One Building' feel for the Capitol. Building materials for the Annex would be selected for durability, quality, and consistency with the Historic Capitol.

LANDSCAPING, LIGHTING, AND MEMORIALS

The existing landscaping and lighting in the vicinity of the visitor/welcome center, Annex, and underground parking would be maintained and protected as much as possible during construction. As many existing trees as possible would be retained during project construction. However, it is estimated that approximately 20-30 trees would need to be removed to implement the project. California Department of Parks and Recreation tree protection guidelines would be implemented to protect trees that are retained within the construction activity area.

Any statues, memorials, plaques, and similar items that must be temporarily or permanently moved as a result of the project would be catalogued and stored in a secure location during construction. For trees, statues, or other features that have been dedicated to, recognize, or honor a particular individual or group, the State would send a letter to that person, or representative of that person or group, notifying them that the statue, plaque, or memorial would be temporarily removed during project construction, then returned to Capitol Park when construction is complete. All statues would be returned to Capitol Park in a setting similar to their original location. All plaques and memorials would be replaced and attributed to the same type of feature it was originally attributed to. For example, a plaque attributed to a redwood tree would then be returned to a redwood tree included in the post construction landscaping plan.

New landscaping and lighting installed in the construction disturbance area after building construction is complete would be consistent in character with what is currently present at the Historic Capitol Building and the surrounding Capitol Park. In particular, trees dedicated to a particular person, group, or event would be replaced with the same species. However, in any locations where landscaping may deviate from existing conditions, vegetation would favor drought tolerant and California native plants. Exterior lighting would strike a balance between the minimization of "light pollution" and preservation of night sky views and the need for security and safety for the Annex, Historic Capitol, and Capitol Park.

PARKING GARAGE

The existing parking in the Annex basement would be abandoned and replaced with new underground parking on the south side of the Capitol (Figure 2-3 shows the general facility envelope being considered). Ground disturbance would primarily be in the area between N Street and south of the south steps of the Capitol. The new underground parking would accommodate up to 200 parking spaces, an increase of 50 spaces. Entry and exit from the new underground parking would be provided on N Street only, with one entry/exit point east of the N Street/11th Street intersection and one entry/exit point west of N Street/11th Street intersection. Both entry/exit points would have security checkpoints. Additionally, the new Annex parking would be designed for maximum flexibility and convertibility to meeting space versus parking if needed in the future. For example, the floor to ceiling height would be such that the space can meet building codes for a use other than parking.

2.3 ENVIRONMENTAL IMPACTS AND RECOMMENDED MITIGATION MEASURES

2.3.1 Project-Specific Impacts

This EIR has been prepared pursuant to the CEQA (Public Resources Code [PRC] Section 21000 et seq.) and the State CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 1500, et seq.) to evaluate the physical environmental effects of the proposed Capitol Annex Project. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. The JRC and DGS have the principal responsibility for approving and carrying out the project and for ensuring that the requirements of CEQA have been met. After the Final EIR is prepared and the EIR public-review process is complete, the Director of the Department of General Services is the party responsible for certifying that the EIR adequately evaluates the impacts of the project.

Table 2-1, presented at the end of this chapter, provides a summary of the environmental impacts for the Capitol Annex Project. The table provides the level of significance of the impact before mitigation, recommended mitigation measures, and the level of significance of the impact after implementation of the mitigation measures.

2.3.2 Significant-and-Unavoidable Impacts and Cumulative Impacts

The Capitol Annex Project would result in one significant-and-unavoidable adverse impact (i.e., impact that cannot be reduced to less than significant levels with feasibly mitigation) related to historic architectural resources. The significant and unavoidable impact occurs because existing historic architectural resources would be altered, damaged, and/or destroyed as a result of project implementation.

2.4 ALTERNATIVES TO THE PROPOSED PROJECT

The following provides brief descriptions of the alternatives evaluated in this Draft EIR. Table 2-2 presents a comparison of the environmental impacts between the alternatives and the proposed project.

- ▶ **Alternative 1: No Project–No Development Alternative** assumes no demolition of the existing Annex, no construction of a new building, no new underground parking, and no new visitor/welcome center. The project site would remain in its current condition.
- ▶ **Alternative 2: Capitol Annex Renovation Alternative** assumes that the Annex building would not be demolished; rather, it would remain in its existing location and would be fully renovated, as feasible. Construction of the new underground visitor/welcome center and parking garage would occur as in the proposed project.

Alternative 3: New Annex Building and Parking Garage with Two Basement Levels Alternative assumes that the Annex would be fully demolished and reconstructed with two basement levels. Additionally, construction of the parking garage would include two underground levels. Construction of the new underground visitor/welcome center would occur as in the proposed project.

2.4.1 Environmentally-Superior Alternative

Because the No Project–No Development Alternative (described above in Section 2.4) would avoid all adverse impacts resulting from construction and operation of the Capitol Annex Project analyzed in Chapter 4, it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the project as presented above in Section 2.2.3.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives

evaluated. As illustrated in Table 2-2, , the Capitol Annex Renovation Alternative would be environmentally superior action alternative because although the environmental impacts would be similar to the proposed project, Alternative 2 would fully renovate the existing Annex and avoid the project's significant and unavoidable historic structure impact related to demolition of the Annex and the impact to the Historic Capitol. However, this alternative would not provide an Annex structure large enough to meet the project objectives, such as providing meeting space for legislative and executive functions of sufficient size to support efficient performance of State business.

2.5 AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

A notice of preparation (NOP) was distributed for the Capitol Annex Project on April 11, 2019, to responsible agencies, interested parties, and organizations, as well as private organizations and individuals that may have an interest in the project. A public scoping meeting was held on May 7, 2019. The purpose of the NOP and the scoping meeting was to provide notification that an EIR for was being prepared for the project and to solicit input on the scope and content of the environmental document. The NOP and responses to the NOP are included in Appendix A of this Draft EIR. Key concerns and issues that were expressed during the scoping process included the following:

- ▶ Historic resources and landscapes
- ▶ Groundwater
- ▶ Sensitivity of Capitol Mall scenic corridor
- ▶ Traffic
- ▶ Recreation
- ▶ Geotechnical investigations

These issues are each addressed in this Draft EIR. With the exception of historic resource impacts, any impacts related to these issues are either identified as less than significant, or less than significant after mitigation. Because the potential exists for existing historic resources to be altered, damaged, and/or destroyed therefore resulting in a significant and unavoidable impact, this issue remains an area of controversy.

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
Land Use and Planning			
<p>Impact 4.2-1: Potential to Divide an Established Community The Capitol Annex Project would consist of three primary components—an underground visitor/welcome center, demolition and replacement of the Annex, and new underground parking—all of which would be located within the grounds of Capitol Park in downtown Sacramento. Although project construction would temporarily disrupt use of the west end of Capitol Park, no part of the project would create a barrier within the established downtown community. Therefore, the project would have a less-than-significant impact related to dividing an established community.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.2-2: Consistency with Land Use Plans and Documents The Capitol Annex Project would be consistent with the objectives and purposes of the State’s CAP and the City’s 2035 General Plan, its Zoning Code, and the Sacramento Central City Community Plan. The project would not conflict with environmental plans, goals, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Transportation and Circulation			
<p>Impact 4.3-1: Impacts on Intersection Operations Implementing the project would add an estimated 22 a.m. peak-hour vehicle trips and 15 p.m. peak-hour vehicle trips to the site related to the potential increase in parking spaces. It would shift trips that currently access the site from L Street to N Street. Based on the traffic analysis, all study intersections would continue to operate at acceptable levels of service. Because the project would not cause any intersection operations to degrade to unacceptable levels, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.4-2: Impacts on Transit The project is not expected to generate new demand for transit services and would not adversely affect public transit operations. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.4-3: Impacts on Bicycle Facilities The project, once complete, is not expected to generate new bicycle trips and would not adversely affect existing or planned bicycle facilities. Therefore, this</p>	LTS	No mitigation is required for this impact.	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
impact would be less than significant.			
<p>Impact 4.4-4: Impacts on Pedestrian Facilities The project, once complete, is not expected to generate new pedestrian trips and would not adversely affect existing or planned pedestrian facilities. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.4-5: Construction-Related Impacts Construction-related traffic impacts would be localized and temporary. Project construction activity would necessitate restriction or redirection of pedestrian, bicycle, and vehicular movements and removal of curbside parking around the site to accommodate construction staging, material hauling, material staging, modifications to utility connections, and movement of State personnel between the Historic Capitol and the 10th and O Street Office Building. DGS and the JRC or their contractor would prepare and implement a construction traffic management plan to reduce the temporary impacts to the degree feasible. Therefore, construction-related impacts on traffic would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Utilities and Service Systems			
<p>Impact 4.4-1: New or Expanded Utility Infrastructure The Capitol Annex Project would use existing infrastructure for water supply, wastewater/stormwater conveyance, and electricity when feasible. However, updated or replacement connections or conveyance lines to the new Annex, visitor/welcome center or parking facility may be required. Construction associated with new utility connections or localized realignments would occur within the planned construction footprint. The potential environmental effects of construction activities within the identified footprint are evaluated throughout this EIR as part of the proposed project. Any utility-related construction activities would occur in compliance with BMPs set forth in the NPDES General Permit and Stormwater Quality Design Manual for the Sacramento region. No additional new or expanded infrastructure beyond the construction area identified for the project would be required. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 4.4-2: Adequacy of Water Supplies The Capitol Annex Project would not change the number of employees or visitors at the State Capitol and the project would implement water conservation measures that exceed Title 24 requirements and meet Leadership in Energy and Environmental Design version 4 (LEED v4) Silver standards. It is conservatively estimated that the project would result in the same water demand as the current Capitol and Annex: 20.72 afy for commercial water demand and 19.3 afy for irrigation water demand, for a combined water demand of 40.02 afy. This continued water demand represents an estimated 0.03 percent of the City’s surplus water supply (152,688 afy). The City currently serves the Capitol and would continue to adequately serve the project site after the project becomes operational. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.4-3: Wastewater Infrastructure and Treatment Capacity Based on the project’s estimated water demand, the projected wastewater discharge resulting from the Capitol Annex Project would be 18,494 gpd (20.72 afy). Although the City’s remaining available capacity at the Regional San WWTP would continue to be sufficient to serve the project, the CSS and its treatment plants currently do not have sufficient capacity to treat wastewater and stormwater during storm events. However, exceedance of treatment capacity of the combined system is a rare event, and the City is implementing the CSSIP to make improvements throughout the system. Because the improvement plans to the CSS are in place, the project would be required to pay the City’s adjusted Combined Sewer Development Plan Fees, and there is capacity sufficient to treat wastewater flows during dry-weather periods, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.4-4: Landfill Capacity and Compliance with Solid Waste Regulations Implementation of the project is estimated to generate approximately 300,000 cubic yards of debris. In accordance with Section 5.408 of the California Green Building Standards Code (CALGreen), the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse a minimum of 65 percent of the debris generated during construction. After it is operational, the project would generate an amount waste similar to the amount generated by the current building. The building would recycle a minimum of 50 percent of the waste, as required for State operations by AB 75 and AB 939. Furthermore, there is</p>	LTS	No mitigation is required for this impact.	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
adequate capacity at landfills in the region for disposal of solid waste generated by the project. Therefore, the project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. This impact would be less than significant.			
Air Quality			
Impact 4.5-1: Generate Construction-Related Emissions of Criteria Air pollutants and Precursors Construction of the project would result in emissions of ROG, NO _x , PM ₁₀ , and PM _{2.5} from demolition, excavation, material and equipment delivery trips, off-road heavy-duty equipment, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Construction activities would not result in emissions of ROG, NO _x , PM ₁₀ , and PM _{2.5} that would exceed SMAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants or precursors would not contribute substantially to the nonattainment status of the SVAB for ozone with respect to the CAAQS and NAAQS, PM ₁₀ with respect to the CAAQS, and PM _{2.5} with respect to the NAAQS. This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.5-2: Create Long-Term Operational Emissions of Criteria Air Pollutants and Precursors Project operations would result in emissions of ROG from reapplication of architectural coatings to maintain the building. However, the 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, 65 lb/day for NO _x , 80 lb/day for PM ₁₀ , and 82 lb/day for PM _{2.5}). Therefore, operational emissions would not conflict with air quality planning efforts or contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS for ozone and PM ₁₀ and with respect to the NAAQS for ozone and PM _{2.5} . This impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS
Impact 4.5-3: Exposure of Sensitive Receptors to TACs Construction- and operation-related emissions of TACs associated with implementation of the project would not result in an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0 at existing or future sensitive receptors. Therefore, this impact would be less than significant.	LTS	No mitigation is required for this impact.	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
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Greenhouse Gas Emissions and Climate Change			
<p>Impact 4.6-1: Project-Generated GHG Emissions Project construction is estimated to generate 5,713 MTCO₂e. Operation of the project would result in GHG emissions associated with water consumption and wastewater and solid waste generation. Operation of the project would generate approximately 217 MTCO₂e/year. However, both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local plans, policies, and regulations adopted for the purpose of reducing GHG emissions and enabling achievement of the statewide GHG reduction target of SB 32 of 2016. The project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Energy			
<p>Impact 4.7-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation While the new Capitol Annex would have a larger building footprint than the existing Annex, the project would be designed with energy-efficiency design features, and the project would be powered with 100-percent renewable electricity through an agreement with SMUD. This is in comparison to the existing Annex that was built in the 1950s before energy reduction goals were in place and many current energy saving technologies were available. Additionally, there would be no direct natural gas usage at the building. The project would not result in the wasteful, inefficient, or unnecessary consumption of energy during construction or operation. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.7-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency Renewable energy generation pursuant to Executive Order B-12-18 would result in an increase in renewable energy use, which would directly support the goals and strategies in the State’s Energy Action Plan (2008 update). The new Capitol Annex would be designed to achieve LEED v4 Silver certification through energy and water efficiency measures, as well as exceed the 2019 California Energy Code by 15 percent pursuant to Executive Order B-18-12. The conservation of transportation fuel use would be encouraged through the lack of on-site parking and proximity to</p>	LTS	No mitigation is required for this impact.	LTS

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multiple modes of transportation in the downtown area. Therefore, implementation of the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be less than significant.			
Noise and Vibration			
<p>Impact 4.8-1: Short-Term Construction Noise Proposed construction areas are located in close proximity to existing noise-sensitive receptors. Most noise-generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the City of Sacramento Noise Control Ordinance. However, it is possible that construction activity may be required during the non-exempt evening and nighttime hours (6:00 p.m. to 7:00 a.m., Monday through Saturday, and between 6:00 p.m. and 9:00 a.m. on Sunday) for activities such as large continuous concrete pours. Nonetheless, accounting for simultaneous equipment operation, proximity to existing sensitive receptors, and typical attenuation rates for noise levels associated with the loudest construction activities, noise levels would not result in exceedance of City noise standards at any nearby receptors. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.8-2: Short-Term Construction-Related Vibration Levels Project construction would require the use of heavy-duty vibration-generating equipment. Based on the anticipated construction activities and associated equipment, demolition, excavation, shoring of existing foundations and drilling of piles for new structures would generate the highest levels of vibration. Specific locations, number/frequency of piles, and specific (i.e., equipment model) is not known at this time and pile drilling would be located adjacent to the existing Historic Capitol, potentially resulting in structural damage and/or disturbance to employees or daily operations taking place within the building. This impact would be significant.</p>	S	<p>Mitigation Measure 4.8-1: Develop and Implement a Vibration Control Plan This mitigation measure shall be applicable to construction activities (other than staging, utility installations, and similar low intensity activities) located within 30 feet of any building or within 80 feet of an occupied building (i.e., the existing Historic Capitol). A vibration control plan shall be developed by the design-build team to be submitted to and approved by DGS and the JRC before initiating any construction activities within the type and distance parameters identified above. Applicable elements of the plan will be implemented before, during, and after construction activity. The plan shall consider all potential vibration-inducing activities that would occur and require implementation of sufficient measures to ensure that existing Historic Capitol, or other buildings, are not exposed to vibration levels that would result in damage to the building. Items that shall be addressed in the plan include, but are not limited to, the following:</p> <ul style="list-style-type: none"> ▶ Pile installation activities shall be limited to the daytime hours between 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 	LTS

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		<p>p.m. on Sunday. No nighttime pile installation will be permitted.</p> <ul style="list-style-type: none"> ▶ Pre-construction surveys shall be conducted to identify any pre-existing structural damage to the existing Historic Capitol, or other buildings, that may be affected by project generated vibration. ▶ Minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving) for the purpose of preventing damage to nearby structures shall be established based on the proposed activities and locations, once determined. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Setback requirements will be based on a project-specific/site specific analysis conducted by a qualified geotechnical engineer, structural engineer familiar with the building(s) that may be affected, and a ground vibration specialist. The criteria for vibration setbacks, and any other vibration controls, is to generate no ground vibration during project construction that would result in structural damage at nearby buildings or structures. ▶ All construction-generated vibration levels shall be monitored and documented at the existing Historic Capitol to ensure that applicable thresholds are not exceeded. Recorded data will be submitted on a weekly basis to DGS and the JRC. If it is found at any time by the design-build team or DGS and the JRC that thresholds are exceeded, an evaluation of the building that might be affected will be conducted to assess whether any damage has occurred. If vibration induced damage has occurred, methods will be implemented to reduce vibration to below applicable thresholds, such as changing construction methods, or increasing setback distances, ▶ Controlling vibration sufficient to prevent structure damage is also likely to prevent substantial human disturbance from vibration. However, the JRC shall identify a point of contact for vibration complaints. It is expected that any complaints, if they occur, would be generated by State personnel within the Historic Capitol. The point of contact for complaints shall work with the JRC and the construction team to resolve the complaint, such as providing an alternative temporary work space away from the source of vibration for the duration of construction. 		

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Geology and Soils				
<p>Impact 4.9-1: Seismic Hazards The project site is not located on any known faults or traces of active faults. Surface fault rupture, therefore, is extremely unlikely. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by ground shaking from earthquakes and to minimize secondary seismic hazards (i.e., ground lurching, liquefaction). Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to seismic hazards, nor would the project have the potential to exacerbate these hazards. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS	
<p>Impact 4.9-2: Liquefaction The loose to medium dense sand and gravel soils identified beneath the project site are considered to have a low potential for liquefaction. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by liquefaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to liquefaction. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS	
<p>Impact 4.9-3: Subsidence and Dynamic Compaction The project site is not located in an area of potential subsidence and dynamic compaction. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by subsidence and dynamic compaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to subsidence and dynamic compaction. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS	

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<p>Impact 4.9-4: Expansive Soils The project site is located in an area where native soils may still exist at depths that could be encountered during project construction, and these soil types exhibit a range in shrink-swell potential from low to high. However, potentially expansive soils were not identified in borings taken at the project site. Through conformance with the CBC and implementation of applicable measures (if needed) to address shrink-swell soils, development of the project would not result in exposure of people or structures to substantial adverse effects from these soil types. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Hydrology and Water Quality</p>			
<p>Impact 4.10-1: Construction-Related Water Quality Impacts Project construction would require ground-disturbing activities, which could lead to erosion and sedimentation, and possible exposure of the groundwater table. Stormwater or groundwater contact with construction materials could lead to degradation of water quality. Compliance with existing regulations relating to stormwater controls, including adherence to SWPPP BMPs and implementation of relevant design standards in the Stormwater Quality Design Manual for the Sacramento Region would result in a less-than-significant water quality impact.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.10-2: Substantially Alter the Existing Drainage Pattern of the Site or Area, Resulting in Substantial Erosion, Siltation, Flooding, or Additional Sources of Polluted Runoff Implementation of the Capitol Annex Project could result in minor increases to impervious surfaces which could alter the drainage patterns at the project site. However, given that overall changes in the amount and location of impervious surface would be small, and that a grading plan and drainage plan would be implemented as part of the project, any changes to the site drainage pattern would not result in new sources of erosion, siltation, flooding, or polluted runoff. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Hazardous Materials and Public Health			
<p>Impact 4.11-1: Storage, Use, Disposal, Transport, or Upset of Hazardous Materials Construction and operation of the Capitol Annex Project would involve the storage, use, and transport of hazardous materials at the project site. However, handling of hazardous materials would be in compliance with local, State, and federal regulations. Therefore, adverse impacts related to the creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.11-2: Exposure of Construction Workers and Others to Hazardous Materials The Phase I ESA prepared for the project identified several records in various hazardous materials databases of past soil or groundwater contamination at or near the project site. Based on the prior history of the project site and surrounding area, proposed demolition, excavation, and facility construction activities on the project site could result in the exposure of construction workers and the general public to hazardous materials. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.11-3: Impaired Implementation of or Physical Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan Construction of the project could require temporary lane or street closures, which could affect emergency access and evacuation routes. DGS would prepare a construction traffic control plan, consistent with Section 12.20.20 of the Sacramento City Code, which would minimize construction impacts related to potential interference with emergency response or evacuation. In addition, the project site is located within a downtown street grid; therefore, various alternative routes are available to access the project site and nearby locations. Following construction, the new Annex would comply with the current Building Code and the Americans with Disabilities Act, security checkpoints would be modernized, parking would no longer be under the footprint of the Annex, and emergency response and evacuation of the State Capitol building and Annex would be improved. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

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Archaeological, Historical, and Tribal Cultural Resources				
<p>Impact 4.12-1: Potential for Impacts on Significant Historic Archaeological Resources</p> <p>Implementation of the Capitol Annex Project would result in the demolition and reconstruction of the Annex, excavation and construction of a new underground visitor/welcome center, and excavation and construction of a new underground parking garage. Although previous site disturbances and construction likely removed any significant historic archaeological features, there are some areas within the project site that may yet be undisturbed, thus potentially retaining significant historic archaeological resources. Because earthmoving activities resulting from the project could potentially affect significant historic archaeological resources within these undisturbed areas, this impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.12-1: Implement Monitoring and Response Measures If Significant Historic Archaeological Resources Are Discovered</p> <p>A cultural resources awareness training program shall be provided to all construction personnel active on the project site during earthmoving activities. The first training shall be provided prior to the initiation of ground-disturbing activities. The training shall be developed and conducted in coordination with a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists. The program shall include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program shall also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered.</p> <p>Where ground-disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists shall monitor ground-disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits is discovered during construction-related earthmoving activities (e.g., ceramic shard, trash scatters, brick walls), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.</p>	LTS	

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<p>Impact 4.12-2: Potential for Impacts on Significant Prehistoric Archaeological Resources and Tribal Cultural Resources</p> <p>There are no known significant prehistoric archeological resources or tribal cultural resources on the project site. However, earthmoving activities associated with project construction could disturb or destroy previously undiscovered significant subsurface prehistoric archaeological resources and/or tribal cultural resources. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.12-2: Implement Monitoring and Response Measures If Significant Prehistoric Archeological Resources and Tribal Cultural Resources Are Discovered</p> <p>This mitigation measure expands on the actions included in Mitigation Measure 4.12-1 to also address encountering unknown prehistoric cultural resources and tribal cultural resources. A representative from each culturally affiliated Native American tribe that has participated in consultation with DGS will be invited to participate in the development and delivery of the cultural resources awareness training program included in Mitigation Measure 4.12-1. Tribal monitors shall be invited to participate in the delivery of the cultural resources awareness training program. The awareness program shall include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program shall also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential prehistoric archaeological resources or tribal cultural resources are encountered. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans and behaviors consistent with Native American tribal values.</p> <p>Where ground-disturbing activities occur, a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists and a Native American monitor (or monitors) shall monitor ground-disturbing activities and/or the handling and placement of imported material brought to the project site for fill or other purposes to determine if archeological material may be imported with the native soil. Furthermore, tribal monitors shall have the opportunity to examine the underside of sections of demolished concrete slabs, as cultural materials that may have been on the ground surface during initial construction could have adhered to the concrete. Tribal monitors shall have the opportunity to inspect a portion of excavated soils. The frequency and volume of excavated soil inspections (e.g., proportion of bucket loads inspected) shall be authorized by the State in consultation with consulting tribes and shall be determined prior to the start of earth moving activities. The final destination for each truckload of excavated soil shall be known before the truck leaves the project site in case a need arises to</p>	LTS

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		<p>inspect the material. Native American monitors and monitoring archeologists shall be provided the contact information for the individual who tracks the disposal location(s) for excavated material.</p> <p>Interested Native American tribes shall be provided at least 7 days' notice prior to the initiation of ground-disturbing activities and/or concrete slab removal. The determination for initiating or ending monitoring of ground disturbance, imported soils, or excavated soils shall be made based on coordination between the qualified archaeologist and Native American monitor, with a final determination made by DGS in consultation with the consulting tribes. This paragraph does not alter the authority of tribal organizations to conduct monitoring.</p> <p>If evidence of any subsurface prehistoric archaeological features or deposits is discovered during construction-related earth-moving activities (e.g., lithic scatters, midden soils), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist and/or Native American representative can assess the significance of the find. Buffer distances between the discovery and construction activities shall be determined in the field by the qualified archaeologist and/or Native American monitor. If an exclusion zone is to be maintained for more than 8 hours, the border of the exclusion zone shall be marked with orange construction fencing, stakes and caution tape, or similar easily visible material. If an exclusion zone is to be maintained overnight, site security shall be notified that no persons may enter the exclusion zone until the qualified archeologist or Native American monitor has returned to the site.</p> <p>If after evaluation, a resource is considered significant, or is considered a tribal cultural resource, all preservation options shall be considered as required by CEQA (see PRC Section 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource. If artifacts are recovered from significant prehistoric archaeological resources or tribal cultural resources, the first option shall be to transfer the artifacts to an appropriate tribal representative. Cultural soils (e.g., soils surrounding biological material that has decomposed) shall also be considered in determining the recovery and transfer of tribal cultural materials. If possible, accommodations shall be made to rebury/reinter the artifacts and cultural soils at the project site. The Joint Rules Committee and DGS, in coordination with the consulting tribes, shall identify at least one suitable reburial location prior to the initiation of ground-disturbing activities. The results of the identification, evaluation,</p>		

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		and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public (in a form suitable for public review and absent of sensitive information).		
<p>Impact 4.12-3: Potential Discovery of Human Remains There are no known cemeteries or burials on the project site. However, earthmoving activities associated with project construction could disturb or destroy previously undocumented human remains. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.12-3: Implement Response Protocol If Human Remains Are Discovered Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during project construction, all work shall be halted in the immediate area; the California Highway Patrol (CHP) shall be notified, and an exclusion zone around the find shall be established based on coordination between CHP, the State, tribal monitors, and the archeologist; and the exclusion zone will be visibly marked (e.g., lath and flagging). CHP shall notify the county coroner to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner’s findings, the MLD, in consultation with the State, shall determine the ultimate treatment and disposition of the remains and any associated archeological items and cultural soils.</p>	LTS	
<p>Impact 4.12-4: Potential for Impacts on Historic Architectural Resources The Capitol Annex Project would cause physical changes within two historic districts and introduce changes to the setting of those two plus a third NRHP-eligible historic district and four individually NRHP-eligible historic buildings. These changes would result in a substantial adverse change to the characteristics that qualify the State Capitol Complex for listing in the NRHP. This impact would be significant. The physical changes within the California State Government Building District would impact one part of one contributor to the district, but overall the project, as currently known, would not impair the district’s ability to convey its historical significance. The impact to this district would be less than significant. The</p>	PS	<p>Mitigation Measure 4.12-4a: Adhere to the Historic Structure Report, Secretary of the Interior’s Standards for the Treatment of Historic Properties, the California State Historical Building Code, and Relevant National Park Service Preservations Briefs DGS will have historic preservation planners under contract as part of the Progressive Design Build Team. The preservation planners’ role is to prepare a historic structure report (HSR) for the Capitol historical resource (the Historic Capitol, Annex, and Capitol Park) in accordance with NPS Preservation Brief 43 (The Preparation and Use of Historic Structure Reports) and include mitigation measures in conformance with the Secretary of the Interior’s Standards (SOIS) for the Treatment of Historic Properties or the California State Historic Building Code</p>	SU	

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<p>changes to the Capitol Extension Group and the four individually eligible buildings would not alter any physical elements of these resources, and would not impair the ability of those resources to convey their historical significance. These resources would have no impact.</p>		<p>(CHBC). The HSR shall identify historic preservation objectives and requirements for the treatments and use of the building prior to initiation of any repairs, modifications, and/or renovations to ensure that the historical significance and condition of the building are considered in the development of proposed renovation work.</p> <p>DGS and the JRC will ensure that preservation treatment objectives for the Capitol historical resource seek to meet all SOIS for character-defining features designated in the HSR as having primary significance status, and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status. In instances when DGS and the JRC must address human safety issues not compatible with the SOIS, DGS and the JRC will adhere to the CHBC to the extent feasible. The CHBC is defined in Sections 18950–18961 of Division 13, Part 2.7 of Health and Safety Code. The CHBC is a mechanism that provides alternative building regulations for permitting repairs, alterations and additions to historic buildings and structures. These standards and regulations are intended to facilitate the rehabilitation and preservation of historic buildings. The CHBC proposes reasonable alternatives so that a property’s fire protection, means of egress, accessibility, structural requirements, and methods of construction would not need to be modernized in a manner that compromises historic integrity. The CHBC is intended to allow continued, safe occupancy while protecting the historic fabric and character-defining features that give a property historic significance, thus promoting adherence to the SOIS. The CHBC recognizes that efforts to preserve the historic materials, features, and overall character of a historic property at times may be in conflict with the requirements of regular buildings codes. The Office of the State Fire Marshall has ultimate authority over health and safety and may require use of the standard building code in some instances.</p> <p>DGS and the JRC will use the HSR to help meet SOIS and CHBC requirements as it includes treatments that draw from National Park Service Preservation Briefs relevant to the proposed renovation work. DGS and the JRC will ensure that the HSR’s historic preservation objectives and treatment requirements for the Capitol historical resource are incorporated into the design and construction specifications. DGS and the JRC will consult with the project development team’s preservation planner and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for</p>	

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		<p>guidance as needed. DGS and the JRC will ensure the HSR’s historic preservation objectives and treatment requirements for the Capitol historical resource are incorporated into the project definition report, architectural design, and construction specifications. DGS and the JRC will consult with the project development team’s preservation planner and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for guidance as needed.</p> <p>Mitigation Measure 4.12-4b: Conduct Architectural Salvage Because a major component of the Capitol Annex Project is the demolition of a historical resource, the Annex, DGS and the JRC will seek feasible means for salvaging the building’s character-defining architectural features and incorporating them into either the design of the new project proposed at the site or the interpretive program that would be developed under Mitigation Measure 4.12-4c. DGS and the JRC will determine which elements should be salvaged. If reuse of salvaged elements in either the design of the new building or in an interpretive program proves infeasible or otherwise undesirable, as determined by DGS and the JRC, DGS and the JRC will attempt to donate the elements to an appropriate historical or arts organization. DGS and the JRC, or consultants that meet the SOIS professional qualifications standards (SOIS-qualified consultants), shall ensure that a detailed salvage plan is provided before any demolition, site, or construction permit is issued for the project.</p> <p>Mitigation Measure 4.12-4c: Develop and Implement an Interpretive Program As part of the project, DGS, the JRC, and the Capitol Museum or SOIS-qualified consultants shall facilitate the development of an interpretive program to commemorate the continuous development of the State Capitol building, including programming focused on the Capitol Annex and Capitol Park. The interpretive programs should result, at minimum, in the installation of a permanent exhibit, located on-site, in a public space, which is viewable and accessible to the public. The display shall be located in the new visitor/welcome center or the Capitol Museum. The interpretive program should highlight the continued evolution of the State Capitol building, as well as provide an inclusive history of the surrounding area, particularly the viewshed from the Capitol Mall as it relates to urban renewal and underserved communities that were displaced to create the current mall, where the visitor/welcome center entrance would be located.</p>		

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Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation	
NI = No impact	LTS = Less than significant	PS = Potentially significant	S = Significant	SU = Significant and unavoidable
		<p>Mitigation Measure 4.12d: Develop and Implement a Plan for Protection, Restoration, or Replacement of Commemorative Trees, Plantings, or Other Memorials in Capitol Park As part of the project, DGS and the JRC shall facilitate the development of a plan that: (a) identifies which of the commemorative trees, plantings, or other types of memorials (collectively referred to as "memorial") located in Capitol Park require removal or that are located within 50 feet of construction activities, and (b) establishes specifications for protecting, restoring, and/or replacing these memorials within Capitol Park as close to their original location as feasible. In developing the plan, DGS will prioritize protection in place over removal of each memorial planting or object. For each memorial where removal is necessary, DGS or the JRC will consult with individuals or groups who are affiliated with that memorial (such as the original sponsoring organization or the individual or group that is the subject of the memorial) to identify a mutually agreeable treatment for the memorial. Treatments may include relocation of the memorial to a new location as close as possible to the original location after project construction is complete, relocation of the original memorial to a new location within Capitol Park, complete removal of the original memorial and replacement "in-kind" with the same species or materials, or complete removal of the original memorial and replacement with a mutually acceptable new memorial. DGS will complete the plan for protection, restoration, or replacement of commemorative memorials prior to initiation of construction activities, and will fully implement the plan within two years after completion of construction (except where the plan identifies that longer timeframes are required).</p> <p>Mitigation Measure 4.12e: Develop and Implement a Plan for Protection, Monitoring, and Repairs for Inadvertent Damage to the Historic Capitol Building Prior to any ground disturbing activities that are within 500 feet of the Historic Capitol Building, DGS and the JRC will oversee qualified consultants in the preparation of a Plan for the Protection, Monitoring, and Repair of Inadvertent Damage to the Historic Capitol Building. Protection measures would be developed in consultation with the Historic State Capitol Commission. The plan shall record existing conditions in order to (1) establish a baseline against which to compare the building's post-project condition, (2) to identify structural deficiencies that make the building vulnerable to project construction related damage, such as vibration,</p>		

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation	
NI = No impact	LTS = Less than significant	PS = Potentially significant	S = Significant	SU = Significant and unavoidable
<p>and (3) to identify stabilization or other measures required to avoid or minimize inadvertent impacts. The plan would be prepared by an interdisciplinary team, including (but not limited to) as appropriate, an architectural historian, architect, photographer, structural engineer, and acoustical engineer. The plan shall describe the protocols for documenting inadvertent damage (should it occur), and shall direct that inadvertent damage to historic properties shall be repaired in accordance with the Secretary of the Interior’s (SOI) Standards for the Treatment of Historic Properties (U.S. Department of the Interior 1995).</p>				
Biological Resources				
<p>Impact 4.13-1: Potential Disturbance to Swainson’s Hawk, White-Tailed Kite, Other Nesting Raptors, and Other Native Nesting Birds Project implementation involves removal of several trees from the project footprint. Tree removal could result in direct loss of nests and mortality of adults, chicks, or eggs if they are present when tree removal occurs. Additionally, loud noises and visual disturbance from the presence of construction equipment, trucks, and construction crews associated with project implementation, including demolition of the existing Capitol Annex and construction of the new Capitol Annex and associated features (e.g., visitor/welcome center, parking garage), could result in indirect disturbance to nesting Swainson’s hawks, white-tailed kites, other nesting raptors, and other native nesting birds if they are present in trees adjacent to the project site. Indirect disturbance to nesting birds could result in nest abandonment. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.13-1: Protect Nesting Swainson’s Hawks, White-Tailed Kites, Other Raptors, and Other Native Birds DGS and JRC shall require that the following measures are implemented before and during construction:</p> <ul style="list-style-type: none"> ▶ To minimize the potential for loss of nesting raptors and other native nesting birds, tree removal and other construction activities, to the maximum extent feasible, will be conducted during the nonbreeding season (September 1 through January 31). If tree removal and other construction activities are completed during the nonbreeding season, no further mitigation will be required. ▶ If tree removal and other construction activities must occur during the breeding season (February 1 through August 31), a qualified biologist will conduct a survey of the trees in the project footprint to assess whether any trees contain nesting Swainson’s hawk, white-tailed kite, other nesting raptors, or other nesting native bird species. If construction activities that could result in disturbance to nesting raptors lapse for greater than 14 days during the breeding season, then an additional survey will be required prior to restart of construction. ▶ If no active Swainson’s hawk, other raptor, or other native bird nests are present, tree removal and other construction activities may commence, and no further mitigation is required. ▶ If an active Swainson’s hawk, white-tailed kite, other raptor, or other native bird nest is present in a tree planned for removal, the nest tree will not be removed until the young have fledged, as confirmed by the qualified biologist. 	LTS	

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant	PS = Potentially significant	S = Significant SU = Significant and unavoidable	
		<ul style="list-style-type: none"> ▶ If an active raptor nest is present in the project footprint, in a tree that is not planned for removal, the qualified biologist, in coordination with CDFW, will determine whether excavation, demolition, or other construction activities are likely to result in disturbance to the nest. A no-disturbance buffer may be established around the nest. The size of the no-disturbance buffer will be determined by the qualified biologist in coordination with CDFW. Buffer size may be adjusted if the qualified biologist, in coordination with CDFW, determines that reducing the size of the buffer would not result in adverse effects on the nesting raptors. The no-disturbance buffer will be implemented until the young have fledged, as confirmed by the qualified biologist. ▶ DGS will coordinate with CDFW regarding the best approach for compliance with Section 3503 of the Fish and Game Code. For example, common species in urban environments, such as house finch, may tolerate some increase in noise or other construction activities close to the nest, and presence of these nests may have no effect on nearby construction activity. 	
<p>Impact 4.13-2: Disturbance to Common Bat Roosts and Maternal Colonies Project implementation could result in inadvertent disturbance to maternal colonies of common bat species or inadvertent exclusion of these bats if they are present in the exterior or interior of the Capitol Annex. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.13-2: Conduct Preconstruction Surveys for Bats and Exclude Bats from Roosting Site DGS and JRC shall require that the following measures are implemented before and during construction:</p> <ul style="list-style-type: none"> ▶ Before demolition activities begin, a qualified biologist will conduct a survey of the exterior and interior of the Capitol Annex for roosting bats. If evidence of bat use is observed, the species and 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 and no further mitigation will be required. ▶ If bat roosts or a confirmed maternity colony are found, bats will be excluded from the roosting site before demolition begins. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). After it is confirmed that bats are not present in the original roost site, demolition activities may commence. 	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 4.13-3: Conflict with Any Local Policies or Ordinance Protecting Biological Resources Implementation of the project could result in the direct loss or temporary disturbance of trees protected under the City of Sacramento Tree Preservation Ordinance. This impact would be potentially significant.</p>	<p>PS</p>	<p>Mitigation Measure 4.13-3: Remove and Replace City Street Trees Consistent with the City of Sacramento Tree Preservation Ordinance Before construction begins, DGS will complete a survey of City street trees at the project site and prepare and submit a detailed tree removal, protection, replanting, and replacement plan to the City arborist. The tree removal plan will be developed by a certified arborist. Separate plans may be prepared for different phases of project construction; however, each construction phase cannot be initiated until a completed plan addressing that construction phase is provided to the City. The plan shall include the following elements:</p> <ul style="list-style-type: none"> ▶ The number, location, species, health, and sizes of all City street trees to be removed, relocated, or replaced will be identified. This information will also be provided on a map/design drawing to be included in the project plans. ▶ Planting techniques, the necessary maintenance regime, success criteria, and a monitoring program for all City street trees planted on or, disturbed but retained on the project site, will be described. <p>DGS and JRC will ensure implementation of the tree removal, protection, replanting, and replacement plan during project construction and operation.</p>	<p>LTS</p>
<p>Public Services and Recreation</p>			
<p>Impact 4.14-1: Increased Demand for Fire Protection Services, Facilities, and Equipment The existing Capitol Annex is aging and requires replacement for several reasons, among which is the need to upgrade and improve fire safety features and infrastructure within the building. Through demolition and replacement, the new Annex would meet current fire protection and safety requirements identified in applicable codes and regulations, as would the visitor/welcome center and underground parking facility. DGS would invite participation by SFD in the project design review process and would consider SFD-recommend fire prevention measures. Because the project would not result in an increase in the number of State employees nor other individuals within the project area (e.g., visitors), it would not increase the need for SFD facilities or services. This impact would be less than significant.</p>	<p>LTS</p>	<p>No mitigation is required for this impact.</p>	<p>LTS</p>

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 4.14-2: Increased Demand for Fire Flow The Capitol Annex Project would involve the development of a new, approximately 525,000-square-foot Annex, an approximately 40,000-square-foot underground visitor/welcome center, and a single-level underground parking garage, which would require adequate available water flow for fire suppression (fire flow). Fire flow quantities have been established and would be available to meet project requirements, and the project would incorporate the necessary fire protection infrastructure (see the discussion of Impact 4.14-1, above). Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.14-3: Increased Demand for Law Enforcement Services, Facilities, and Equipment Implementation of the Capitol Annex Project would result in a reconfiguration of security and law enforcement services at the project site during project construction. Specifically, private security would be provided by the construction contractor at the construction site and in the area of the Capitol Park closure, and public entry to the Capitol building would be consolidated from the existing three public entrances to two entrances: one at the new visitor/welcome center and the other at a temporary north entry point to the Capitol building. Additionally, during construction of the Annex, displaced employees would be relocated to the 10th and O Street Office Building, where CHP would provide security services for the duration of their tenure at that location. These changes to the configuration of security and law enforcement for the project area are designed such that they would have a less-than-significant impact on police protection services, facilities, and equipment during construction. The project would not result in an increase in the number of staff or visitors within the project area after project implementation, and public access to the State Capitol building would be centralized through the new visitor/welcome center access point established before the Annex is constructed. Because of these factors, existing law enforcement services, facilities, and equipment would be adequate to serve the Capitol Annex Project during long-term operation of the proposed project, and this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 4.14-4: Increased Demand for Recreational Facilities The Capitol Annex Project would involve demolition and replacement of the Capitol Annex and construction of a new underground visitor/welcome center and an underground parking garage. The new Annex would serve the same number of staff and visitors as it currently serves, and the function of the Annex would not change; therefore, it would not increase demand for recreational facilities within the project area. However, during construction, the extent of recreation facilities would be reduced compared to existing availability because access to the Historic Capitol would be restricted and the west end of Capitol Park would be closed. Events and activities currently held on the project site would need to be relocated to the open portions of Capitol Park or to other public or private venues. Events within the open portions of Capitol Park and along Capitol Mall would continue under the existing CHP permitting process and after project construction is complete full access to Capitol Park would be restored. Any statues, memorials, plaques, and similar items that must be temporarily or permanently moved as a result of the project would be catalogued and stored in a secure location during construction. When construction is complete, all statues would be returned to Capitol Park in a setting similar to their original location and all plaques and memorials would be replaced and attributed to the same type of feature they were originally attributed to. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
Aesthetics, Light, and Glare			
<p>Impact 4.15-1: Adverse Effect on a Scenic Vista The Capitol Mall corridor is considered a scenic vista. Implementation of the Capitol Annex Project would require substantial construction activities, which would temporarily alter views of the primary façade of the Historic Capitol, located at the eastern end of Capitol Mall. Additionally, if any entrance features of the proposed visitor/welcome center are centrally located above ground and at the foreground of the Historic Capitol, scenic views of the State Capitol's primary façade would be permanently impaired. Because construction activities would be temporary, these activities would not result in a permanent adverse effect. However, any visitor/welcome center entry features located in front of the building would adversely affect views of the Historic Capitol, resulting in a permanent visual impact on an identified scenic vista. This impact would be potentially significant.</p>	PS	<p>Mitigation Measure 4.15-1: Establish and Implement Performance Criteria for Construction of the Visitor/Welcome Center Entrance All aboveground visitor/welcome center entry structures (e.g., elevator shafts, stairwell shelters) shall be located outside the Capitol Mall scenic vista corridor.</p>	LTS

Table 2-1 Summary of Impacts and Mitigation Measures

Impacts	Significance before Mitigation	Mitigation Measures	Significance after Mitigation
NI = No impact LTS = Less than significant PS = Potentially significant S = Significant SU = Significant and unavoidable			
<p>Impact 4.15-2: Substantial Degradation of Existing Visual Character or Quality The Capitol Annex Project would result in demolition and reconstruction of the Annex, as well as construction of a new underground visitor/welcome center and parking garage. The project would involve temporary (i.e., construction-related) and permanent (reconstructed Annex building) visual changes in the project area. The Annex is located directly adjacent to the Historic Capitol, is surrounded by Capitol Park, and is within downtown Sacramento, an urban setting surrounded by office buildings, commercial buildings, residential buildings and roadways. The site design, building construction materials, finishes and landscaping would be consistent with the existing State Capitol and its prominent setting in Capitol Park. Although the project would result in temporary visual changes associated with construction of the new Annex, visitor/welcome center, and parking garage, the completed Capitol Annex Project would be similar to the existing visual setting and would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, this impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS
<p>Impact 4.15-3: Introduction of New Sources of Light and Glare that Adversely Affect Day or Nighttime Views The Capitol Annex Project would involve new lighting associated with construction and operation of the Annex, visitor/welcome center, and parking garage. Construction lighting would be temporary and would be utilized primarily as a security measure for the construction site. The proposed exterior finishes of the Annex, visitor/welcome center, and parking garage would not include materials that are highly reflective or that would produce substantial glare. Operational project-related light sources would be similar to the current lighting in downtown Sacramento in amount and intensity of light. In addition, lighting plans would be consistent with the U.S. Green Building Council’s Leadership in Energy and Environmental Design version 4 (LEED v4) Green Building Rating System, which would reduce both the generation of exterior light and the potential for light trespass to affect off-site areas. The project would also be required to meet CALGreen standards that limit light and glare generated by State-owned buildings. For these reasons, project implementation would not create a new source of substantial light that would adversely affect day or nighttime views in the area. This impact would be less than significant.</p>	LTS	No mitigation is required for this impact.	LTS

Table 2-2 Summary of Environmental Effects of the Alternatives Relative to the Proposed Capitol Annex Project

Environmental Topic	Proposed Project	Alternative 1: No Project – No Development Alternative	Alternative 2: Capitol Annex Renovation Alternative	Alternative 3: New Annex Building and Parking Garage with Two Basement Levels Alternative
Land Use	Less than Significant	Similar	Similar	Similar
Transportation and Circulation	Less than Significant	Less	Similar	Similar
Utilities and Service Systems	Less than Significant	Less	Similar	Similar
Air Quality	Less than Significant	Less	Less	Similar
Greenhouse Gas Emissions and Climate Change	Less than Significant	Short-term Less Long-term Greater	Less	Similar
Energy	Less than Significant	Short-term Less Long-term Greater	Less	Similar
Noise	Less than Significant with Mitigation	Less	Less	Similar
Geology and Soils	Less than Significant	Similar	Similar	Greater
Hazards and Hazardous Materials	Less than Significant	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant	Similar	Similar	Similar
Archaeological, Historical, and Tribal Cultural Resources	Significant and Unavoidable	Less	Less	Greater
Biological Resources	Less than Significant with Mitigation	Less	Similar	Similar
Public Services and Recreation	Less than Significant	Less	Less	Similar
Aesthetics, Light, and Glare	Less than Significant with Mitigation	Less	Similar	Similar

3 PROJECT DESCRIPTION

3.1 PROJECT BACKGROUND AND NEED

The historical portion of the Capitol Building, referred to as the “Capitol” or “Historic Capitol” began construction in 1860 and was completed in 1874, originally housing all branches of government: executive (Governor and other elected State officers), legislative (Senate and Assembly), and judicial (California Supreme Court), as well as the state library and archives. After many decades of alterations and departments expanding and moving to other buildings, the Capitol Annex Building (Annex) was constructed between 1949 and 1951. The six-story and roughly 325,000-square-foot Annex was connected to the west side of the Historic Capitol, resulting in the appearance of a single continuous building.

The Annex supports the Governor and executive staff, the Lieutenant Governor, and the Legislative Branch of Government, including offices for 115 of California’s 120 State Lawmakers. The other five state lawmaker offices are in the adjacent Historic Capitol. With its physical connection to the Historic Capitol, the Annex is an important public asset, as it provides a venue for California’s public to participate in deliberative, democratic governmental processes with the Governor, State Lawmakers, and their policy and other staff. However, the building’s deficiencies have become impediments to both use by the public and the efficient use of Government.

The Annex was originally constructed in accordance with the 1949 Uniform Building Code (UBC). The code in effect today is the 2016 California Building Code (CBC). While the mission of the code has largely remained the same, considerable changes have been made since the 1949 UBC edition and new regulations and standards related to building facilities and performance have been adopted. Identified deficiencies in the Annex relative to current building standards and building operations include:

- ▶ life safety/building code deficiencies (e.g., fire detection, alarm, and fire suppression systems);
- ▶ non-compliance with Americans with Disabilities Act (ADA) standards;
- ▶ non-compliance with energy efficiency standards;
- ▶ overcrowding;
- ▶ aging and failing infrastructure (e.g., plumbing, electrical, heating/cooling); and
- ▶ insufficient public and working space.

Responding to the need to replace or renovate the Annex, in 2016 the Legislature passed SB 836. SB 836 provides funding for a project to address deficiencies in the existing State Capitol Building Annex. Passage of SB 836 aligned with the need identified in the Governor’s 2016 Five-Year Infrastructure Plan to modernize the Annex. In 2018, SB 840 and AB 1826 were passed, providing further funding and authorizations for the Annex project. AB 2667 was also passed in 2018, requiring the Annex Project to reflect symbols found in the Historic Capitol representing California’s heritage and to promote education and hospitality to visitors.

3.2 PROJECT OBJECTIVES

Consistent with, and in furtherance of SB 836, SB 840, AB 1826, and AB 2667, the objectives of the Capitol Annex Project are to:

- ▶ Provide an accessible, efficient, and safe environment for State employees, elected officials, and the public they serve.
- ▶ Integrate the new State development with the existing surroundings.
- ▶ Develop sustainable and energy efficient facilities.

- ▶ Provide modern facilities that meet current construction standards and codes.
- ▶ Continue to provide secure parking for legislative and executive branch officials.
- ▶ Provide meeting space for legislative and executive functions of sufficient size to support efficient performance of State business and with modern communications technology.
- ▶ Continue to provide Annex facilities directly adjacent to the Historic Capitol.
- ▶ Promote education, hospitality, and a welcoming environment for the visiting public.

3.3 PROJECT LOCATION

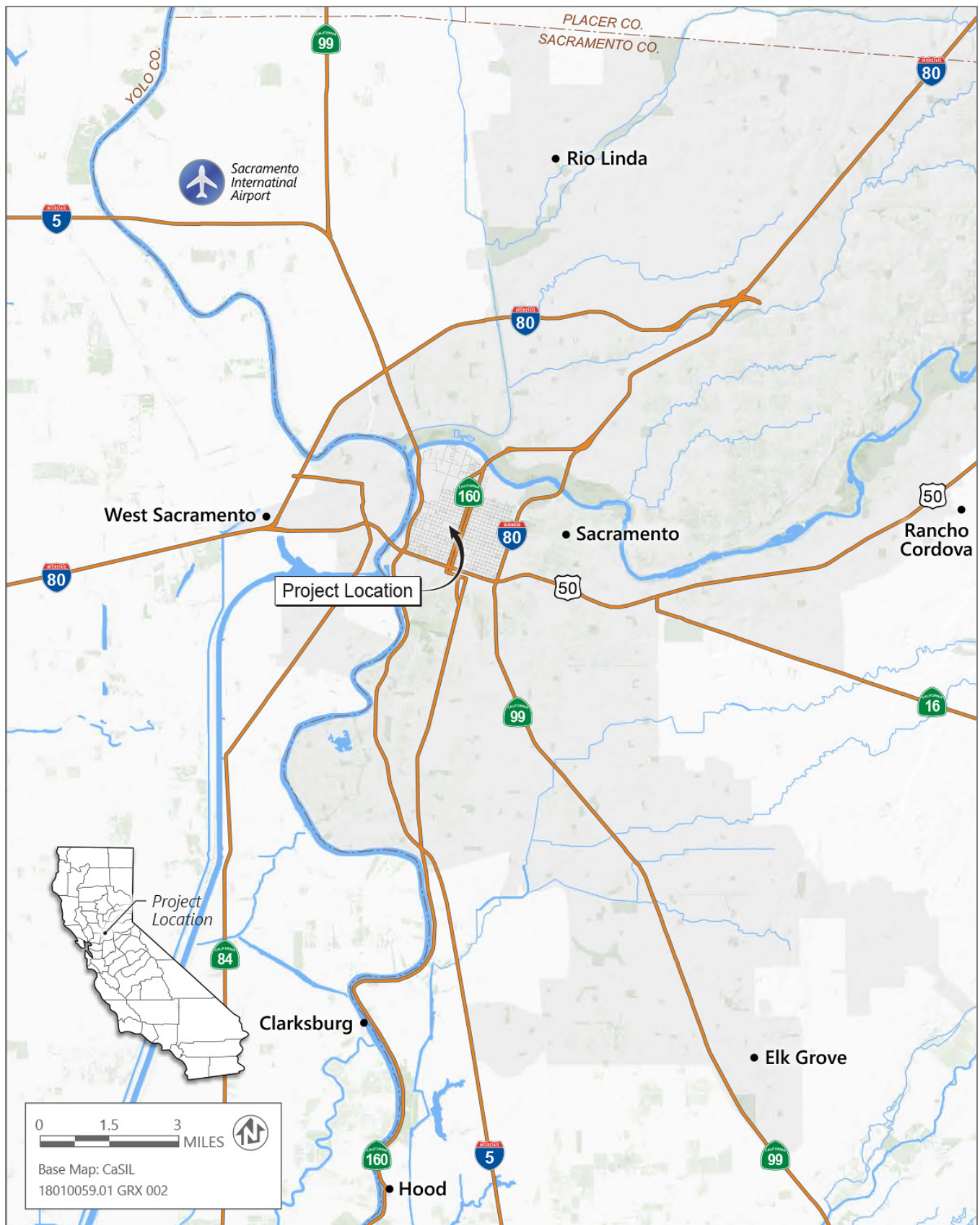
The proposed project site is located in downtown Sacramento on the Capitol grounds, bounded by 10th Street on the west, N Street on the south, L Street on the north, and 12th Street on the east (roughly following the alignment of the eastern edge of 12th Street across Capitol Park) (Figures 3-1 and 3-2). The site encompasses portions of the western half of Capitol Park, but most of the park is located east of the project site between 12th Street and 15th Street.

As described further below, the project consists of three primary components: an underground visitor/welcome center on the west side of the Historic Capitol between the Capitol Building and 10th Street, the Annex replacement on the east side of the Historic Capitol, and new underground parking on the south side of the Historic Capitol between the Capitol Building and N Street (Figure 3-3 shows generalized facility envelopes).

3.4 CHARACTERISTICS

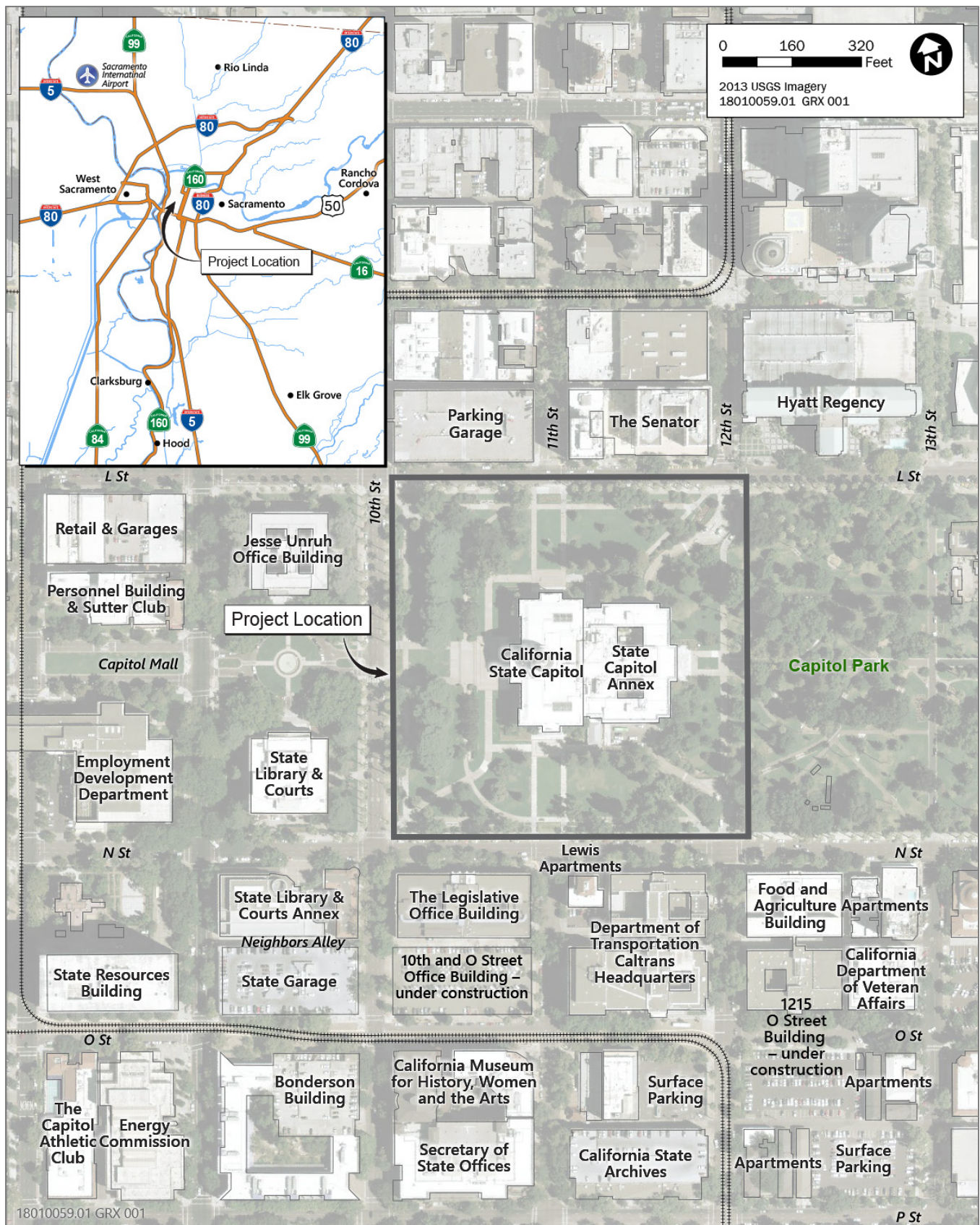
3.4.1 Existing Land Uses and Land Use Designation

The Capitol Building and Annex are surrounded by Capitol Park. The entire Capitol Park, including the Historic Capitol and Annex, is on land owned by the State. Monuments, memorials, other points of interest, landscaping, and ornamental trees are located throughout the park and on all sides of Capitol Building and Annex. Walkways within the park surround the Capitol and Annex building on all sides. The *Capitol Area Plan* (CAP) (DGS 1997) designates landscaped portions of Capitol Park as "Parks and Open Space," but designates walkways, hardscape, and the Capitol Building and Annex as "Other Existing Use." Land uses surrounding the project site consist of the State-owned Jesse Unruh Office Building and the Library and Courts Building across 10th Street to the west; a City of Sacramento operated parking structure with ground floor retail and "The Senator" office building across L Street to the north; Capitol Park to the east; and the LOB, the Lewis Apartments, and Caltrans Headquarters building across N Street to the south (Figure 3-2).



Source: Prepared by Ascent Environmental in 2019

Figure 3-1 Regional Location



Source: Sacramento County 2015. Adapted by Ascent Environmental in 2019.

Figure 3-2 Site Location

3.4.2 Project Phasing

Implementation of the Capitol Annex project would be completed in a sequence of steps. These steps are identified here, then described in more detail below.

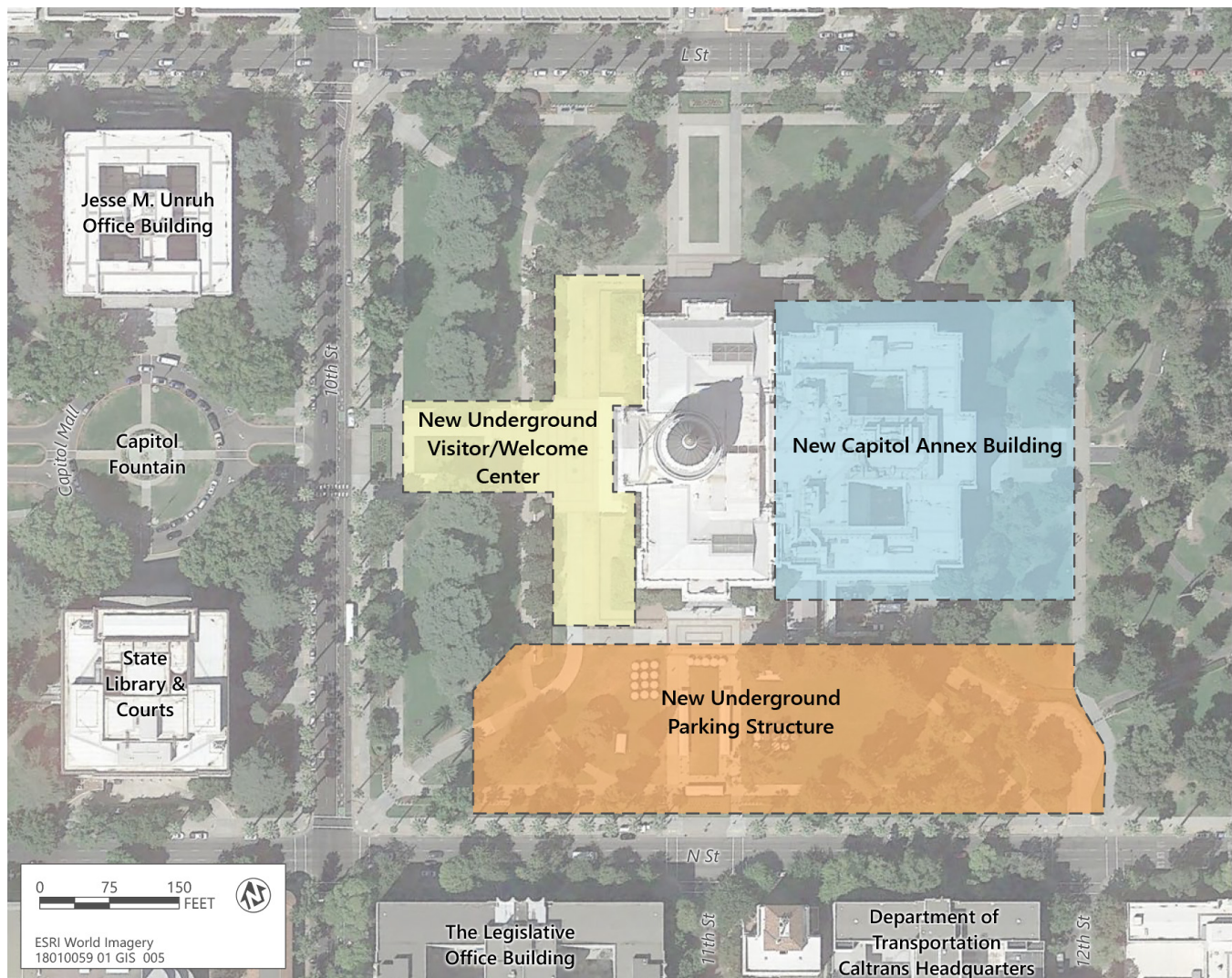
1. Before Annex demolition and construction can begin, the Annex building must be vacated and its occupants and functions moved to a different location. During project construction, the Legislature and executive branch offices and related facilities would be temporarily located in the new 10th and O Street Office Building, currently under construction. Limited legislative functions, such as caucus offices, would be temporarily moved to existing rooms on the second floor of the Historic Capitol, and functions and staff currently in those rooms would be moved to the 10th and O Street Office Building.
2. Existing public entry/security checkpoints at the Capitol are provided at the north, south, and east sides of the Annex. When the Annex is closed for demolition, these entries/security checkpoints would be closed. To provide continued safe and efficient public entry to the Capitol while the Annex replacement is underway, and after completion of the project, the project includes the new underground visitor/welcome center on the west side of the Capitol that would provide access from the west to the Capitol (Figure 3-3). The new visitor/welcome center must be complete and operational before demolition of the existing Annex begins so that access to the Capitol from the west can be provided. Additionally, a publicly accessible entry on the north side of the Historic Capitol is proposed to facilitate entry during Annex construction. Legislators and staff moving between the Historic Capitol and the 10th and O Street Office Building may use the south entrance to the Historic Capitol once the Annex is vacated.
3. The objective is to complete the visitor/welcome center before, or concurrently with, the Legislature and executive staff moving to the 10th and O Street Office Building so that abatement and demolition of the Annex may begin immediately after it is vacated.
4. After abatement and demolition of the existing Annex, construction of the new Annex may begin, although some work outside the footprint of the existing annex (e.g., in utility alignments) may begin before demolition being completed.
5. Either concurrently with visitor/welcome center construction, or during the Annex abatement, demolition, and construction process, the underground parking garage south of the Capitol Building would be excavated and constructed.

3.4.3 Temporary Office Space During Annex Demolition and Reconstruction

Before initiating demolition of the existing Annex, the Legislature and executive branch offices and related facilities would be temporarily located in the new 10th and O Street Office Building, which is currently under construction. The building site is located on the north side of O Street between 10th Street and 11th Street. After the new Annex is complete, the Legislature and executive staff would return to the Annex and the 10th and O Street Office Building would be used as general State office space.

3.4.4 Temporary Adjustments to Historic Capitol Operations

Portions of the existing Annex are used to support functions critical to operation of the Legislature when it is in chambers, such as Assembly and Senate Caucus offices and space for the Assembly Chief Clerk. Space for these functions must be located near the Assembly and Senate Chambers so that they are easily accessible from these locations. When the Annex is closed for demolition, these functions would be moved to several existing rooms on the second floor of the Historic Capitol. Office furnishings and partitions within these rooms may be modified to better serve these temporary uses while the Annex project is completed; however, no historic elements, corridors, or hallways would be altered. Functions and staff currently in those rooms would be moved to the 10th and O Street Office Building.



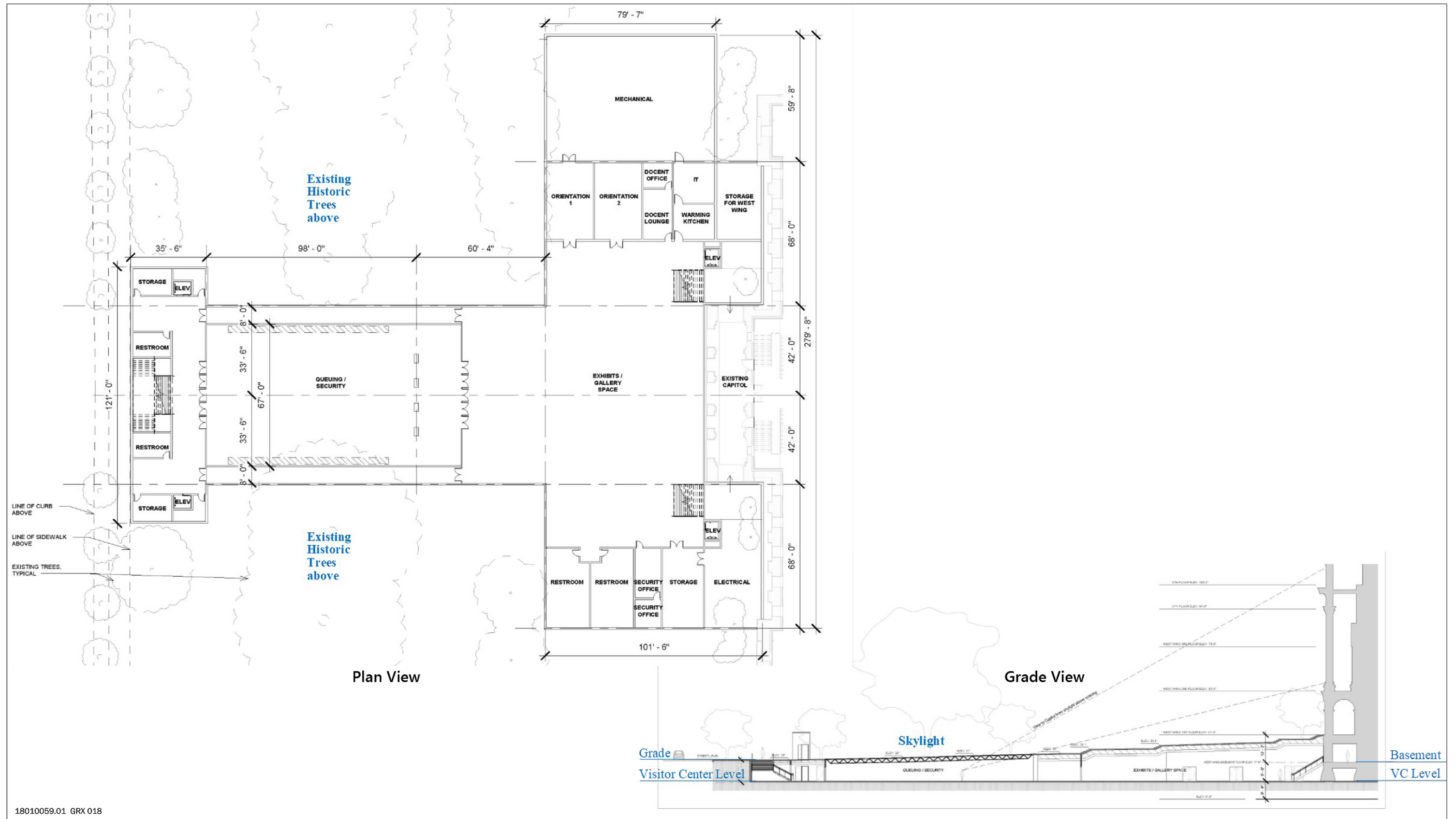
Source: Adapted by Ascent Environmental 2019

Figure 3-3 Project Components

3.4.5 Visitor/Welcome Center

The new visitor/welcome center would be approximately 40,000 square feet and would be located between 10th Street and the west steps of the Capitol (Figure 3-4). An above-ground entrance would be provided near 10th Street with both stair and ADA-compliant elevator access. Visitors would then move underground, through a security checkpoint, and enter the Capitol through the basement.

The visitor/welcome center would include educational resources supporting civic engagement and improved understanding of California and its government. The visitor/welcome center would integrate with education and hospitality elements already located in the basement of the Historic Capitol such as the theater, bookstore, and restaurant. The visitor/welcome center could also act as an event space, “after hours”, when the Historic Capitol is closed to the public and the visitor/welcome center is not needed as a public entrance. Currently, various locations in the Capitol, such as the Eureka Room, are used to host events such as dinners and social gatherings. The visitor/welcome center could provide another option for these types of uses.



Source: Image prepared and provided by MOCA in 2019

Figure 3-4 Visitor/Welcome Center Conceptual Sketches

As described above, existing public entry/security checkpoints at the Capitol are provided at the north, south, and east sides of the Annex. When the Annex is closed for demolition, these entries/security checkpoints would be closed. The new visitor/welcome center would provide continued safe and efficient public entry to the Capitol while the Annex replacement is underway and after completion of the project.

Ground disturbance for construction of the visitor/welcome center would be primarily in the area between 10th Street and the west steps of the Capitol. Excavation would reach a depth of approximately 25 feet. Construction methods for all project components are described further below in Section 3.4.14, "Construction Methods and Equipment."

Upon completion of the visitor/welcome center, the temporarily disturbed portions of Capitol Park on the west side of the Capitol would be restored to existing conditions, except that a skylight or similar feature may be located in the "roof" of the visitor/welcome center (at the ground surface) to allow natural light into the center and possibly allow a view of the Historic Capitol from inside the center. Fencing, vegetation, or other materials surrounding the skylight would prevent pedestrians from walking on the skylight, creating a new landscape element on the west side of the Capitol Building.

3.4.6 Demolition of the Existing Annex

The existing Annex is a six story, approximately 325,000 square foot building, with vehicle parking in a basement level. The first step in demolition would be removal of any historically significant items and other features incorporated into the physical structure of the building that the State wishes to save (e.g., the metallic relief panels on the east facade). The next step would be removal of hazardous materials from the existing building such as any lead-based paint, asbestos pipe insulation, and similar materials frequently found in older buildings. After the hazardous materials abatement is complete, excavators and other heavy equipment would be used to dismantle the building. Materials would be hauled off-site and disposed of in an approved landfill or other facility authorized to accept the material. Material suitable for recycling would be separated and transported to a suitable recycling facility. Further details on the overall construction process are provided below in Section 3.4.14, "Construction Methods and Equipment."

3.4.7 New Annex Program Elements

The new Annex would serve the same purpose as the existing Annex, providing office space, hearing rooms, conference rooms, and supporting facilities for the Legislature and executive branch. Approximately 1,700 personnel (i.e., combined elected officials, their staff, and other employees in the Capitol) work in the Annex. The number of employees would not change as a result of development of the new Annex, although some employees currently located in the LOB may move to the Annex, and vice versa. Like the existing Annex, the new Annex would be physically connected to the Historic Capitol.

The new Annex would provide approximately 525,000 gross square feet of space, compared to the 325,000 square feet in the existing Annex. The new Annex would support more and larger hearing rooms and conference rooms, more consistently sized office spaces, and more efficiently designed facilities. For example, the design and configuration of the new Annex would;

- ▶ provide more convenient public access to all committee rooms and legislator offices;
- ▶ align the floors of the Annex with the West Wing to improve wayfinding and circulation;
- ▶ allow Committee Chairs better proximity to their committee work areas;
- ▶ allow staff to be in closer proximity to the elected officials they serve;
- ▶ enlarge corridors to improve flow and access;
- ▶ allow equipment currently placed in hallways to be moved into dedicated offices;

- ▶ provide workspaces and facilities to better allow California Highway Patrol (CHP) and Sergeants at Arms staff to fulfill their security functions; and
- ▶ improve the flow of both employee and visitor traffic.

Although the new Annex would support more square footage than the existing building, the functions, activities, and personnel associated with the Annex would not change.

The new Annex would meet all current building codes, ADA standards, and energy efficiency standards. The building would meet or exceed LEED v4 Silver certification.

The existing loading dock serving the Annex is on the south side of the building and is accessed from N Street at the same entry/exit point serving the basement parking under the Annex. The loading dock would be reconfigured as part of the new Annex construction to support more efficient use by delivery vehicles.

3.4.8 Annex Height, Massing, and Architectural Treatments

The new Annex building height would be no taller than parapet of the historic capitol and/or the base of the existing Capitol dome. The anticipated height would be approximately 125 feet, which is lower than the current colonnade level and well below the base of the dome. The new Annex would be approximately the length of the Historic Capitol and would extend east toward the existing 12th Street walkway. There would be a below grade level for public meeting spaces. The aesthetics and materials of the new Annex would be developed to be consistent and sympathetic with the Historic Capitol to create a 'One Building' feel for the Capitol. Building materials for the Annex would be selected for durability, quality, and consistency with the Historic Capitol.

3.4.9 Landscaping, Lighting, and Memorials

The existing landscaping and lighting in the vicinity of the visitor/welcome center, Annex, and underground parking would be maintained and protected as much as possible during construction. As many existing trees as possible would be retained during project construction. However, it is estimated that approximately 20-30 trees would need to be removed to implement the project. California Department of Parks and Recreation tree protection guidelines would be implemented to protect trees that are retained within the construction activity area.

Any statues, memorials, plaques, and similar items that must be temporarily or permanently moved as a result of the project would be catalogued and stored in a secure location during construction. For trees, statues, or other features that have been dedicated to, recognize, or honor a particular individual or group, the State would send a letter to that person, or representative of that person or group, notifying them that the statue, plaque, or memorial would be temporarily removed during project construction, then returned to Capitol Park when construction is complete. All statues would be returned to Capitol Park in a setting similar to their original location. All plaques and memorials would be replaced and attributed to the same type of feature it was originally attributed to. For example, a plaque attributed to a redwood tree would then be returned to a redwood tree included in the post construction landscaping plan.

New landscaping and lighting installed in the construction disturbance area after building construction is complete would be consistent in character with what is currently present at the Historic Capitol Building and the surrounding Capitol Park. In particular, trees dedicated to a particular person, group, or event would be replaced with the same species. However, in any locations where landscaping may deviate from existing conditions, vegetation would favor drought tolerant and California native plants. Exterior lighting would strike a balance between the minimization of "light pollution" and preservation of night sky views and the need for security and safety for the Annex, Historic Capitol, and Capitol Park.

3.4.10 Parking Garage

The existing parking in the Annex basement would be abandoned and replaced with new underground parking on the south side of the Capitol (Figure 3-3 shows the general facility envelope being considered). Ground disturbance would primarily be in the area between N Street and south of the south steps of the Capitol. The underground parking would be on one level, with excavations up to approximately 25 feet deep. After the underground parking is complete, the temporarily disturbed portions of Capitol Park would be restored to as close as possible to existing conditions (as described above in the discussion of landscaping, lighting, and memorials).

The new underground parking would accommodate up to 200 parking spaces. The current Annex basement parking can accommodate approximately 150 vehicles. Electric vehicle (EV) charging stations would be available in numbers that exceed minimum building code standards. The current Annex basement parking has entries/exits with security checkpoints on both L Street and N Street. Entry and exit from the new underground parking would be provided on N Street only, with one entry/exit point east of the N Street/11th Street intersection and one entry/exit point west of N Street/11th Street intersection. Both entry/exit points would have security checkpoints. Additionally, the new Annex parking would be designed for maximum flexibility and convertibility to meeting space versus parking if needed in the future. For example, the floor to ceiling height would be such that the space can meet building codes for a use other than parking.

3.4.11 Project Utilities

WATER

Water supply connections would continue from the existing City of Sacramento pipelines serving the Historic Capitol and Annex located on the west side of the Capitol. As stated previously, the Capitol Annex Project would not result in a change in the number of employees at the Annex; therefore, water demand would not change and existing delivery pipelines connecting the City pipelines to the building would have sufficient volume to meet demand. However, building codes size water lines based on both the number of people served by the line and the square footage of the structure the line connects to. Because the new Annex and visitor/welcome center add building square footage compared to existing conditions, it is anticipated that larger water lines connecting the buildings to the City pipelines would need to be installed to meet current building codes. New water lines may follow the alignments of existing water lines. However, if existing lines pass under large trees intended for preservation during project construction, the existing water line would be abandoned in place and the new water line would be routed to avoid damage to the tree.

The Annex building and visitor/welcome center would include water conservation and reuse measures that exceed 2016 Title 24 water efficiency requirements. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Additionally, any new landscaping introduced in the project area (i.e., landscaping that is not a direct replacement of trees or other vegetation specifically intended to return the project site to pre-project conditions) would include drought tolerant native planting as another water-saving design measure of the project.

Fire protection for the Annex would comply with the California code for high-rise buildings and the City of Sacramento High-Rise Ordinance (as determined to be applicable by the State Fire Marshall), including fire pumps tied to a fire water storage tank, a sprinkler system throughout the building, and breathing air systems provided in the building. Fire protection for the visitor/welcome center and underground parking would also meet applicable standards for these facilities.

WASTEWATER

Connections to the City's Combined Sewer System (CSS) would be made at the existing CSS main currently serving the Historic Capitol and Annex. Sewer cleanouts would be installed at the point of service. The CSS in downtown

Sacramento transports both rainwater and stormwater to the Sacramento Regional County Sanitation District's wastewater treatment plant for treatment before discharge to the Sacramento River.

As described above for potable water, because the Capitol Annex Project would not result in a change in the number of employees at the Annex, demand for sewer service would not change and existing sewer lines would have sufficient volume to meet demand. However, building codes size sewer lines based on both the number of people served by the line and the size and characteristics of the structure the line connects to. Because the new Annex and visitor/welcome center add building square footage compared to existing conditions, it is anticipated that larger sewer lines connecting the buildings to the CSS would need to be installed to meet current building codes. New sewer lines may follow the alignments of existing lines. However, if existing lines pass under large trees intended for preservation during project construction, the existing sewer line would be abandoned in place and the new sewer line would be routed to avoid damage to the tree.

STORMWATER AND DRAINAGE

The existing stormwater/drainage features on the site and connections to the CSS would be maintained, with upgrades installed as needed per code and project requirements (e.g., amount of impermeable surface area on the project site).

HEATING AND COOLING

For the purposes of this EIR, it is assumed that the new Annex and visitor/welcome center would connect to the State-owned and -operated Central Plant, located at 6th and Q Streets, for chilled water (cooling). The Central Plant currently provides heating and cooling services to the Historic Capitol and Annex, and this EIR assumes that this would continue. However, to improve building efficiency and meet or exceed sustainability goals, it is possible that building heating would be electrically powered, with electricity provided by 100 percent renewable sources via an existing contract between the State and Sacramento Municipal Utility District (SMUD). Because provision of heating from the Central Plant would have greater environmental effects than electricity delivered by SMUD from 100 percent renewable sources (e.g., burning of natural gas to power Central Plant boilers to generate steam), obtaining heating services from the Central Plant is evaluated here so as to be appropriately conservative.

ENERGY USE

The State has a 20-year contract (signed in 2018) with SMUD to provide electricity from 100 percent renewable sources to State buildings in downtown Sacramento, including the Historic Capitol and the Annex. This contract would be applied to the new Annex building, visitor/welcome center, and underground parking garage. The project would be designed to meet modern building standards, including the 2019 Building Energy Efficiency Standards. The project would also achieve a minimum LEED v4 Silver certification. Energy Star office equipment, energy efficient computer monitors, and LED (light-emitting diode) lighting would need to be used throughout the building to achieve the energy goals. Electrical metering and control systems would be installed to monitor and balance electrical loads on a per system basis (e.g., lighting, mechanical) and on a per floor basis.

Electrical service to the new Annex would be similar to the existing service provided to the existing Annex and West Wing by SMUD. Electrical service currently enters the site from N Street with transformers serving both buildings on State property adjacent to the existing Annex. The existing 21-kilovolts (kV) service would be increased to add additional power for the new visitor/welcome center and parking garage. The existing transformers adjacent to the Annex would be replaced with new transformers on the project site.

Natural gas would not be used directly, but it is assumed for this analysis that heating would continue to be provided by steam from State's Central Plant, which uses natural gas for the boilers that generate the steam.

TELECOMMUNICATIONS

Telecommunications would be provided to the new building via existing feeds. Minor trenching would be required to establish the connection.

3.4.12 Modifications at the Historic Capitol

Implementation of Capitol Annex Project would require minor modifications to the Historic Capitol (beyond any modifications to connect the new Annex to the Historic Capitol). For example, the foundation would be "penetrated" to allow the visitor/welcome center to connect to the Historic Capitol basement. Some existing facilities in the basement, such as the gift shop and interpretive features, may be moved or enhanced to better integrate with the visitor/welcome center displays and educational functions. As excavations and construction in and around the Historic Capitol foundation are undertaken, the opportunity to implement seismic retrofits or other actions to reinforce the Historic Capitol foundation may be completed. Other activities at the Historic Capitol could include minor repairs, cleaning, adjustments to mechanical functions such as heating/cooling/ventilation systems and elevators.

3.4.13 Construction Schedule

Construction of the visitor/welcome center is anticipated to begin in fall 2020. Construction of the entire project would take approximately 5 years and would be completed before the end of 2025, with the Legislature and executive branch occupying the new Annex by the end of 2025. The proposed approximate phasing of the project is as follows:

- ▶ Visitor/Welcome Center Construction – Third Quarter 2020 to Fourth Quarter 2021,
- ▶ Annex Abatement and Demolition – First Quarter of 2022 to Third Quarter 2022,
- ▶ Annex Construction – Fourth Quarter 2022 to Fourth Quarter 2025, and
- ▶ Underground Parking Construction – Second Quarter 2024 to Third Quarter 2025.

The construction labor force would fluctuate depending on the phase of work. However, it is estimated that during peak construction periods approximately 250-300 workers would be on the project site.

3.4.14 Construction Methods and Equipment

The following construction equipment is anticipated to be used during project construction:

- ▶ concrete/industrial saw,
- ▶ rubber-tired or track dozer,
- ▶ tractors/loaders/backhoes,
- ▶ excavators,
- ▶ bobcats,
- ▶ drill rig,
- ▶ off-highway trucks,
- ▶ grader,
- ▶ scraper,
- ▶ crane,
- ▶ tower crane,
- ▶ man-lift,
- ▶ boom lift,
- ▶ construction elevator,
- ▶ scissor lift,
- ▶ forklift,
- ▶ concrete trucks,
- ▶ concrete pump trucks,
- ▶ roller/compactor,
- ▶ generator set,
- ▶ welding machine,
- ▶ compressor,
- ▶ haul trucks, and
- ▶ painting equipment.

Before activities begin on any project component, temporary fencing would be installed around the construction area and other security measures such as cameras and lighting would be installed to prevent unauthorized access and promote site safety. For construction of the visitor/welcome center, fencing would be limited to the west side of the Historic Capitol. The construction exclusion area would include the sidewalk along 10th Street between L Street and N Street and a portion of the east side of the 10th Street travel corridor in this area. It is expected that parking on both sides of 10th Street between L Street and N Street would be removed during construction and the State would re-stripe 10th Street to provide two vehicle travel lanes and maintain the dedicated bicycle lane. The exclusion fencing would be removed, and 10th Street returned to pre-project conditions, at completion of the visitor/welcome center and before establishing the temporary construction exclusion area for the Annex and underground parking.

Before demolition of the Annex begins, temporary fencing would be installed around the eastern and southern portions of the project area. The construction exclusion area would include the sidewalk along N Street between 10th Street and 12th Street and the parking lane along the north side of N Street. The sidewalk along L Street between 11th Street and 12th Street would also be closed; however, the temporary construction exclusion area would not encroach onto L Street. The eastern edge of the construction exclusion area would not extend beyond the line of where the eastern edge of 12th Street would cross Capitol Park. During this phase of construction (i.e., Annex demolition, new Annex construction, underground parking construction) access to the entrance of the visitor/welcome center at 10th Street would be maintained, as would a pedestrian pathway from the entry at the north side of the Historic Capitol to L Street. A pedestrian pathway from the south side of the Historic Capitol to N Street may also be maintained for members of the Legislature, Executive, and their staff to move between the Historic Capitol and the 10th and O Street Office Building. To facilitate the safe movement of members of the Legislature, executive branch, and their staff across N Street, during this phase of construction, N Street would be closed to vehicle traffic during the day. The closures would begin no earlier than after the end of the morning peak hour traffic period on N Street and end no later than the beginning of the evening peak hour traffic period.

Available space within each temporary construction exclusion area may be used as a staging area. The available space would be limited as necessary to accommodate the protection of trees and any other features of Capitol Park to be preserved during construction. The staging areas would house construction trailers for temporary office space and would be used for storage of construction equipment and construction materials. Temporary heating/ventilation/air conditioning (HVAC) units would also be located in the staging area to serve the Historic Capitol. HVAC units currently serving the Historic Capitol are located on the roof of the Annex. When the Annex is demolished these units would no longer be operational and temporary units would be needed until the new Annex is completed.

Where feasible and available, diesel construction equipment would be powered by Tier 3 or Tier 4 engines as designated by the California Air Resources Board (CARB) and U.S. Environmental Protection Agency. In addition, if available for on-site delivery, diesel construction equipment would be powered with renewable diesel fuel that is compliant with California's Low Carbon Fuel Standards and certified as renewable by the CARB executive officer.

It is estimated that there could be up to approximately 15,000 total haul trips for all phases of construction. This includes trips for delivery of material, removal of excavated fill, and removal of material generated by demolition of the existing Annex. Construction is estimated to generate 200,000–300,000 cubic yards of solid waste. This is based on an estimated volume of non-recyclable materials generated by demolition of the existing Annex and excavation depths for the visitor/welcome center and underground parking of approximately 25 feet below grade, with an additional 10 feet of depth in limited areas, such as for elevator pits. Trucks would enter and exit the fenced construction area at designated gated points.

DGS and the JRC would prepare a construction traffic control plan, consistent with Section 12.20.20 of the Sacramento City Code, that illustrates the location of the proposed work area; identifies the location of areas where the public right-of-way would be closed or obstructed, and the placement of traffic control devices necessary to perform the work; shows the proposed phases of traffic control; and identifies the time periods when the traffic control would be in effect and, although not expected, the time periods when work would prohibit access to private property from a public right-of-way. The traffic control plan would also provide information on access for emergency vehicles to prevent interference with emergency response.

Measures, including ground vibration monitoring and response, would be implemented during construction to prevent damage to the Historic Capitol and other nearby buildings and site features. Screening or other methods would be used as necessary to prevent flying debris (e.g., material released while demolishing concrete) from damaging the Historic Capitol. Impact pile driving would be avoided; an alternative approach, such as the use of drilled auger cast piles or drilled displacement piles, would be used during construction of the new facilities. During excavation, dewatering may be necessary. The treatment and disposal of any water removed from the excavation would meet Central Valley Regional Water Quality Control Board requirements.

Periods of nighttime outdoor construction may be needed. Indoor construction activities, such as installing wiring, drywall, and carpet, which would occur after walls and windows are in place, would be permitted during nighttime hours. However, the contractors would be permitted to conduct outdoor construction during the nighttime hours only if there are no other reasonable options. For example, some foundation designs require that after the pouring of concrete is initiated, the pour must continue without pause until it is complete. In some instances, such a concrete pour may take 20 or more hours, requiring work to occur during the nighttime hours. It is unknown at this time whether the final project design would have any elements that require outdoor nighttime construction. Therefore, to ensure a comprehensive evaluation of potential environmental effects, this EIR assumes the potential for limited outdoor nighttime construction activity.

3.5 POTENTIAL PERMITS AND APPROVALS REQUIRED

For the purposes of CEQA, the term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the project (CEQA Guidelines Section 15381). Discretionary approval power may include such actions as issuance of a permit, authorization, or easement needed to complete some aspect of the proposed project. Approval from various City of Sacramento departments would be required to complete construction of the Capitol Annex Project. Where city approval may constitute a discretionary decision, such as potential approvals related to street abandonments or utility connections, the City would use the EIR for the Capitol Annex Project to support these decisions. Agencies whose approval may be required for the project include, but may not be limited to:

- ▶ State Historic Preservation Officer,
- ▶ City of Sacramento,
- ▶ Central Valley Regional Water Quality Control Board,
- ▶ Sacramento Metropolitan Air Quality Management District, and
- ▶ Sacramento Municipal Utility District.

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4 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION MEASURES

4.1 APPROACH TO THE ENVIRONMENTAL ANALYSIS

This Draft EIR evaluates and discloses the environmental impacts associated with the Capitol Annex Project, in accordance with CEQA (PRC Section 21000 et seq.) and the State CEQA Guidelines (CCR, Title 14, Chapter 3, Section 15000 et seq.).

Sections 4.2 through 4.15 present a discussion of regulatory setting, environmental setting, environmental impacts associated with construction and operation of the project, mitigation measures to reduce the level of significant and potentially significant impacts, and residual level of significance (i.e., after application of mitigation, including impacts that would remain significant and unavoidable after application of all feasible mitigation measures). Issues evaluated in these sections consist of the environmental topics identified for review in the notice of preparation (NOP) (see Appendix A of this Draft EIR). Chapter 5 of this Draft EIR, "Cumulative Impacts," presents an analysis of the project's impacts considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. Chapter 6, "Other CEQA-Mandated Sections," includes an analysis of the project's growth-inducing impacts, as required by Section 21100(b)(5) of CEQA. Chapter 7, "Alternatives," presents a reasonable range of alternatives and evaluates the environmental effects of those alternatives relative to the proposed project, as required by Section 15126.6 of the State CEQA Guidelines.

Sections 4.2 through 4.15 of this Draft EIR each include the following components:

- ▶ **Regulatory Setting:** This subsection presents information on the laws, regulations, plans, and policies that relate to the issue area being discussed. Regulations originating from the federal, State, and local levels are each discussed as appropriate.
- ▶ **Environmental Setting:** This subsection presents the existing environmental conditions on the project site and in the surrounding area as appropriate, in accordance with State CEQA Guidelines Section 15125. The discussions of the environmental setting focus on information relevant to the issue under evaluation. The extent of the environmental setting area evaluated (the project study area) differs among resources, depending on the locations where impacts would be expected. For example, the environmental setting for noise describes conditions in the area where noise from project construction and operation could be heard, whereas the environmental setting for geology and soils extends well beyond the project site as seismic events from faults miles from the project site could affect project facilities.
- ▶ **Environmental Impacts and Mitigation Measures:** This subsection presents thresholds of significance and discusses the potentially significant effects of the Capitol Annex Project on the existing environment, including the environment beyond the project boundaries, in accordance with State CEQA Guidelines Section 15126.2. The methodology for impact analysis is described in each section, including technical studies upon which the analyses rely. The thresholds of significance are defined, and the thresholds for which the project would have no impact are disclosed and dismissed from further evaluation. Project impacts are numbered sequentially in each subsection (Impact 4.2-1, Impact 4.2-2, Impact 4.2-3, etc.). A summary impact statement precedes a more detailed discussion of each environmental impact. The discussion includes the analysis, rationale, and substantial evidence upon which conclusions are drawn. The determination of the level of significance of each impact is presented in bold text. An impact would be "less than significant" if no substantial adverse change in the physical environment would occur. An impact would be "significant" or "potentially significant" if a substantial adverse change in the physical environment would, or potentially would occur; both are treated the same under CEQA in terms of procedural requirements and the need to identify feasible mitigation. Mitigation measures are identified, as feasible, to avoid, minimize, rectify, reduce, or compensate for significant or potentially significant impacts, in

accordance with State CEQA Guidelines Section 15126.4. Unless otherwise noted, the mitigation measures presented are recommended in the EIR for consideration by the State to adopt as conditions of approval.

Where an existing law, regulation, or permit specifies mandatory and prescriptive actions about how to fulfill the regulatory requirement, leaving little discretion in its implementation, and would avoid an impact or maintain it at a less-than-significant level, the environmental protection afforded by the regulation is considered before the impact significance is determined. Where existing laws or regulations specify a mandatory permit process for future projects, performance standards without prescriptive actions to accomplish them, or other requirements that allow substantial discretion in how they are accomplished, or they have a substantial compensatory component, the level of significance is determined before the influence of the regulatory requirements is applied. In this circumstance, the impact would be potentially significant or significant, and the regulatory requirements would be included as a mitigation measure.

This subsection also describes whether mitigation measures would reduce project impacts to less-than-significant levels. Significant and unavoidable impacts (i.e., significant impacts that cannot be reduced to a less-than-significant level with feasible mitigation) are identified as appropriate in accordance with State CEQA Guidelines Section 15126.2(c). Significant-and-unavoidable impacts are also summarized in Chapter 6, "Other CEQA-Mandated Sections."

The full references associated with the parenthetical citations found throughout Chapters 1 through 7 are presented in Chapter 8, "References," which is organized by chapter and technical section number.

4.1.1 Effects Found Not to Be Significant

It has been determined that implementing the Capitol Annex Project would not significantly affect some environmental resource topics. Under the CEQA statutes and the State CEQA Guidelines, a lead agency may limit an EIR's discussion of environmental effects when such effects are not considered potentially significant (PRC Section 21002.1[e]; State CEQA Guidelines Sections 15128, 15143). Information used to determine which impacts would be potentially significant was derived from review of the proposed project, review of applicable planning documents and CEQA documentation, fieldwork, feedback from public and agency consultation, and comments received on the NOP (see Appendix A of this Draft EIR). Discussions of the project effects found not to be significant are presented below.

AGRICULTURAL AND FORESTRY RESOURCES

The project is located in the urban environment of downtown Sacramento and involves construction of a new visitor/welcome center, construction of new underground parking, demolition of the existing Annex, and construction of a new Annex. Surrounding land uses include the Jesse M. Unruh Office Building and Stanley Mosk Library and Courts Building, Capitol Park, other office buildings, retail stores, and parking garages. As identified on the Sacramento County Important Farmland map (California Department of Conservation 2017), all of downtown Sacramento is identified as "Urban and Built-Up Land." No farmland designated agricultural uses, Williamson Act contracted lands, or forestry resources are located on the project site or in the vicinity. Impacts related to landscaping, including trees, on the project site are discussed in Section 4.13, "Biological Resources." The project would have no impact on agricultural or forestry resources. This topic is not discussed further in this EIR.

POPULATION, EMPLOYMENT, AND HOUSING

The project would not involve the construction of new housing, removal of housing, or creation of new commercial business. Implementation of the Capitol Annex Project in downtown Sacramento would not extend roads or other infrastructure to new areas and therefore would induce growth in new locations. The construction labor force would fluctuate depending on the phase of work. It is estimated that project construction activities would require an estimated 250–300 workers during peak construction periods. Construction efforts would be temporary and generally would be short term; therefore, they are not expected to lead employees to relocate to the area. According to the

latest labor data available from the California Employment Development Department (EDD 2019), 61,900 residents in the Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area (MSA) are employed in the construction industry. Approximately 2,660 of these construction employees could be available to work on the proposed project (the result of applying the March 2019 unemployment rate of 4.3 percent for the Sacramento-Roseville-Arden Arcade MSA to the construction sector). Together, these residents in the construction labor force ("labor force" is defined as all those people who are employed or are looking for employment) and the construction employees in other areas within commute distance (e.g., Yolo, Placer, and El Dorado Counties) would be sufficient to meet the demand for construction workers that would be generated by the project.

Additionally, it is the nature of the construction industry for construction contractors to bid and work on projects based on their availability and need for work. As existing construction projects near completion, contractors may seek out new construction projects to maintain employment for the same workers. Therefore, it could be reasonably assumed that the project-generated demand for construction workers would not necessarily draw new workers to the area but instead would provide a continuation of employment for contractors and workers already in the region. Because construction workers serving the project could be expected to come from the local labor force in the city of Sacramento, Sacramento County, and surrounding areas, no substantial population growth or demand for new housing in the region as a result of these jobs would result. Therefore, the project would not generate the need for substantial additional housing in the city during construction.

As stated in Chapter 3, "Project Description," it is anticipated that the number of occupants in the existing Annex building would change little, if at all, with construction of the new building. Thus, the project would have little to no effect on population and housing. This issue is not discussed further in this EIR. The potential for growth-inducing effects is considered, as required by CEQA, in Chapter 6, "Other CEQA Sections."

MINERAL RESOURCES

Historic mineral production in the Sacramento region has included construction aggregate, kaolin clay, common clay, pumice, and gold. However, according to the Mineral Land Classification Map of Sacramento County, the project area is designated as MRZ-1, or an area with no significant mineral deposits (California Division of Mines and Geology 1999). Implementation of the project would not result in the loss of any known mineral resources, and no impact would occur. This issue is not discussed further in this EIR.

WILDFIRE

The project site and surrounding land uses are not located in a state responsibility area. Because the project site is located in a highly urbanized setting and the site is served by the Sacramento Fire Department, the risk of wildfire is very low. This issue is not discussed further in this EIR.

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4.2 LAND USE AND PLANNING

This land use analysis evaluates consistency of the Capitol Annex Project with applicable land use plans and policies. The physical environmental effects associated with the project, many of which pertain to issues of land use compatibility (e.g., noise, aesthetics, air quality) are evaluated in other sections of Chapter 4 of this Draft EIR.

4.2.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to land use are applicable to the project.

STATE

Capitol Area Plan

The Capitol Area Plan (CAP), originally adopted in 1977 and updated in 1997, is the statutory master plan for development on State-owned land surrounding the State Capitol building (DGS 1997), in accordance with Government Code Section 8160 et seq. The CAP envisions State offices, housing, neighborhood commercial, parking, and multimodal streets creating a vibrant urban district in the heart of Sacramento. DGS developed the CAP and is responsible for its administration. DGS implements the office and parking elements of the CAP, and the Capitol Area Development Authority, a joint powers authority between the State of California and the City of Sacramento (City), implements the housing and retail elements.

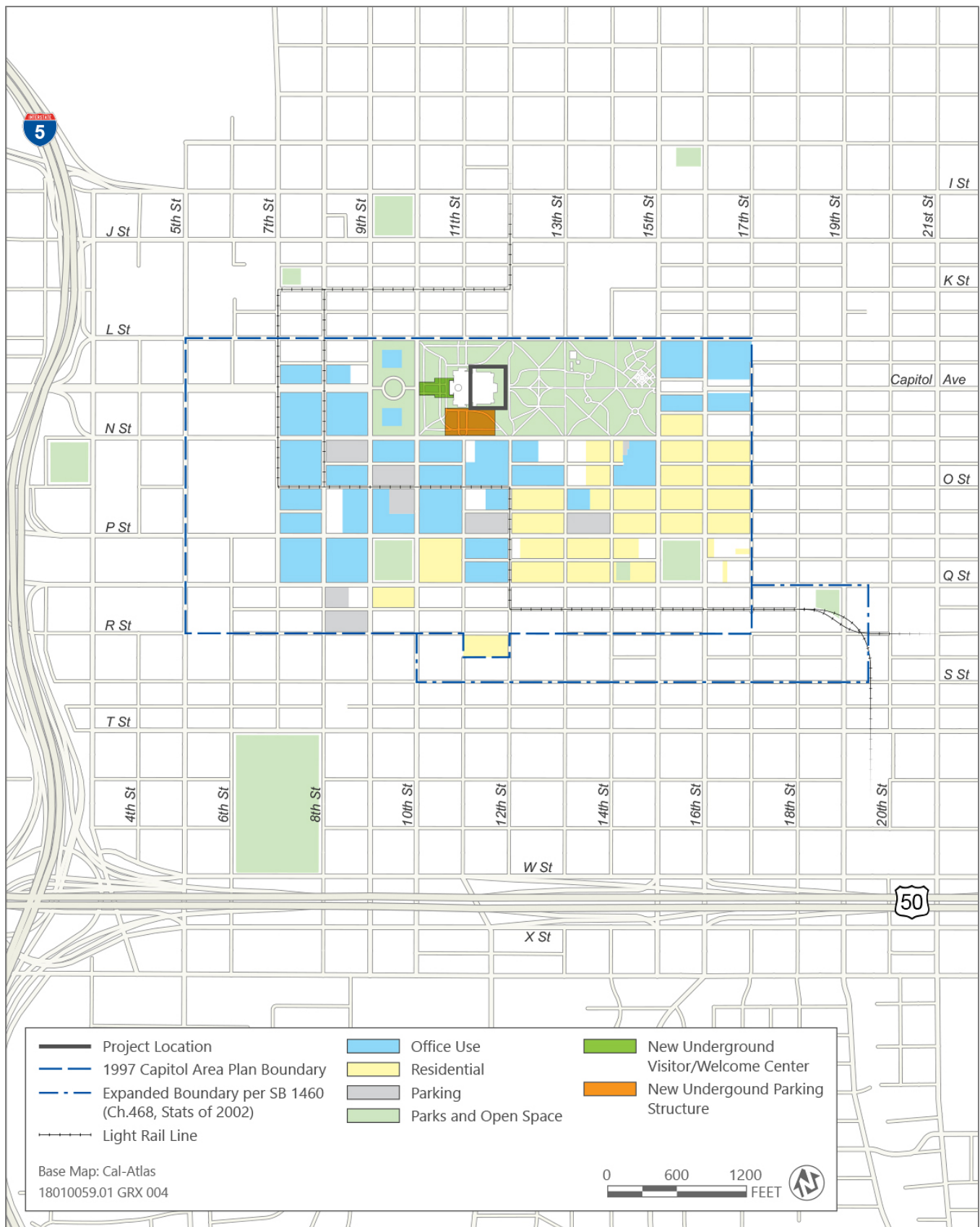
When it was first established, the CAP area was demarcated by an area bounded by 5th Street on the west, 17th Street on the east, L Street on the north, and R Street on the south, and it included an additional half-block area south of R Street between 11th and 12th Streets (Figure 4.2-1). When SB 1460 was passed by the California Legislature and signed by the governor in 2002, several blocks were added to the plan area along R Street. The land use designations of the CAP were not altered by the expansion, however, because no State-owned land lies within the added area.

The CAP designates landscaped portions of Capitol Park as Parks and Open Space but designates walkways and hardscape, including the State Capitol building and the Capital Annex building ("Capitol Annex" or "Annex"), as Other Existing Use (Figure 4.2-1).

Statutory Objectives

The CAP has the following statutory objectives:

- ▶ **Land Use.** To establish patterns of land use in the Capitol Area which are responsive to the goals of the Capitol Area Plan, which provide for flexibility in meeting future State needs, and which protect the State's long-term interest without inhibiting the development process.
- ▶ **State Offices.** To provide offices and related services to meet present and future space requirements for the State of California near the State Capitol and in the context of metropolitan Sacramento, in the most cost-effective manner.
- ▶ **Housing.** To foster housing within the Capitol Area meeting a wide range of income levels and restoring the area to a population consistent with its urban surroundings.
- ▶ **Transportation and Parking.** To develop strategies, patterns and systems of movement into and within the Capitol Area that would provide adequate mobility for people that would provide adequate parking and that would enhance the area's environment.



Source: Ascent Environmental 2019

Figure 4.2-1 Capitol Area Plan Land Use Diagram

- ▶ **Open Space and Public Amenities.** To develop within the Capitol Area a network of attractive and convenient open spaces and access routes to improve the environment for workers, residents and visitors, and to encourage a favorable response to alternatives for moving within and using the resources of the Capitol Area.
- ▶ **Development of the Community.** To stimulate the development of a community within the Capitol Area which is attractive and comfortable to work in, live in, and visit, which is integrated into the fabric of the rest of the City of Sacramento, and which is physically and economically viable over the long term.
- ▶ **Energy Conservation.** To assure that the evolution and the development of the Capitol Area accomplishes an increase in the intelligent and efficient use of energy resources within the scope of State operations in metropolitan Sacramento.
- ▶ **State's Relation to Local Government.** To assure the integration of planning and development efforts in the Capitol Area with the activities of all appropriate local governmental agencies.
- ▶ **Administration and Implementation.** To assure the effective implementation of the plan, by providing effective development mechanisms, by maintaining communications and coordination with all agencies and constituencies, and by updating the plan as needed.

Purpose

The CAP includes the following purposes:

- ▶ to continue development of the Capitol Area as a mixed-use community;
- ▶ to offer opportunity sites for office, housing, and commercial development, consistent with the established development patterns in the area;
- ▶ to maintain and enhance the historic prominence of State government in the area, consistent with the State's emphasis on office space consolidation;
- ▶ to provide for stately, appropriate development at the east end of Capitol Park that complements the west end setting;
- ▶ to plan for appropriate utilization of State-owned real estate assets; and
- ▶ to use a transit system significantly expanded in the Capitol Area since the development of the 1977 plan.

The CAP "Open Space and Public Amenities" section (CAP Section 6 and Figure 6-1) calls for protection of the historic value and role of Capitol Park as an arboretum and a public gathering space:

Parks are central to the Capitol Area's identity and sense of community. The 35-acre Capitol Park occupies ten city blocks, the largest single site in the Capitol Area, and is a major civic and state historic resource. It contains the State Capitol Building, and services as the focal point of the Capitol Area. The park was planned as an arboretum at the time of its inception, and is a central element in the Capitol Area's open space framework. Capitol Park should be maintained as an arboretum and a public gathering space. Future construction of structures in the park, including large memorials should be avoided.

2015 Capitol Area Plan Progress Report

DGS is required to submit annually a progress report to the California Legislature detailing ongoing progress toward implementation of the CAP, including an assessment of the degree to which State projects have been in conformance with the plan (Government Code Section 8164 et seq.). The 2015 CAP Progress Report (DGS 2015) identified opportunities for improved energy efficiency in the Capitol Annex building through an energy assessment of lighting and equipment used in the building.

2016 California Five-Year Infrastructure Plan

The 2016 *California Five-Year Infrastructure Plan* (Office of the Governor 2016:6, 59) is the governor's proposal for investment in State infrastructure, prepared and submitted for consideration with the annual budget bill. Based on a legislatively mandated DGS study of State office infrastructure in Sacramento (Chapter 451, Statutes of 2014 [AB

1656]), the plan documented serious deficiencies with existing downtown buildings that require replacement or renovation. The study found that multiple buildings in central Sacramento have serious deficiencies in building systems, including inadequate fire and life safety, electrical, and plumbing systems. The Capitol Annex was specifically identified as one such building. The governor proposed a budget and identified initial projects to better use State-owned land. Modernization to improve the safety and capacity of the Capitol Annex was identified as one of the projects.

California State Capitol Annex Project Planning Study

In 2016, the legislature passed SB 836, which was signed into law. SB 836 provides funding to address deficiencies in the Capitol Annex. The 2017 *California State Capitol Annex Project Planning Study* was prepared after SB 836 was passed to document the current deficiencies and the future design goals for the Capitol Annex and to shape the future of the Legislative Branch for the next 50–100 years; provide the public with a safe, inviting building to participate in the governmental process; and provide the state with one of the most energy-efficient state capitol buildings in the United States (Joint Committee on Rules 2017).

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC.

Under CEQA, an EIR must consider the extent to which a project is inconsistent with “applicable general plans” (State CEQA Guidelines Section 15125[d]; see also State CEQA Guidelines Appendix G, IX[b]). The project is located in the city of Sacramento, but because the JRC and DGS are State agencies, that are not subject to local land use regulations, City-adopted land use plans, policies, and regulations are not applicable to the project. For this reason, this EIR need not, as a matter of law, consider such plans, policies, and regulations. Nevertheless, in the exercise of its discretion, the JRC does reference, describe, and address local land use plans, policies, and regulations in its evaluation of the Capitol Annex Project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR.

The JRC and DGS take this approach for several reasons. First, the JRC and DGS recognize that such plans, policies, and regulations reflect the local agency’s policy decisions with respect to appropriate uses of land in the area. Consideration of these plans, policies, and regulations will therefore assist the JRC and DGS in determining whether the proposed project may conflict with nearby land uses that could result in potentially significant environmental impacts. Second, the consideration of City plans, policies, and regulations is consistent with Government Code Section 8162, which directs DGS to cooperate with City and county officials in connection with implementation of the CAP (see also Government Code Section 8163[a][2], which directs DGS to take into consideration local “ordinances, plans, requirements and proposed improvements”). Finally, the project would require sidewalk and roadway encroachment permits, as well as permits for connections to City-operated utilities (see Streets and Highways Code Section 8300 et seq.). By considering consistency of the project with the *City of Sacramento 2035 General Plan*, this EIR will provide the City with the information necessary to make the consistency determination related to required encroachment and utility permits.

Sacramento Region Blueprint

The Sacramento Region Blueprint (Blueprint) is a transportation and land use study that was initiated by the Sacramento Area Council of Governments (SACOG) Board of Directors in 2002 to determine alternatives to current and planned transportation and land use patterns. The Sacramento Region is defined for the purposes of SACOG and the Blueprint as including El Dorado and Placer Counties (minus the Tahoe area) and Sacramento, Sutter, Yolo, and Yuba Counties. In December 2004, the SACOG Board of Directors adopted the Preferred Blueprint Scenario, a vision for growth that promotes compact, mixed-use development and more transit choices as an alternative to low-density development. The Sacramento Region Blueprint depicts a path to regional growth through the year 2050 that is generally consistent with principles of “smart growth,” which encourage a variety of housing close to employment,

shopping, and entertainment and provide options for walking, biking, or taking public transit. The following Blueprint Growth Principles are relevant to the analysis of land use effects (SACOG 2007):

- ▶ **Transportation Choices:** Developments should be designed to encourage people to sometimes walk, ride bicycles, ride the bus, ride light rail, take the train, or carpool. Use of Blueprint growth concepts for land use and right-of-way design will encourage use of these modes of travel and the remaining auto trips will be, on average, shorter.
- ▶ **Mixed-Use Developments:** Building homes, shops, entertainment, office, and light-industrial uses near each other can encourage active, vital neighborhoods. This mixture of uses can be arranged vertically or horizontally. These types of projects function as local activity centers where people would tend to walk or bike to destinations. Separated land uses, on the other hand, lead to the need to travel more by auto because of the distance between uses.
- ▶ **Compact Development:** Creating environments that are more compactly built and use space in an efficient but aesthetic manner can encourage more walking, biking, and public-transit use, and shorten auto trips.
- ▶ **Use of Existing Assets:** In urbanized areas, development on infill or vacant lands, intensification of the use of underutilized parcels, or redevelopment can make better use of existing public infrastructure. This can also include rehabilitation and reuse of historic buildings, denser clustering of buildings in suburban office parks, and joint use of existing public facilities such as schools and parking garages.
- ▶ **Quality of Design:** Design details of any land use development—such as the relationship to the street, setbacks, placement of garages, sidewalks, landscaping, the aesthetics of building design, and the design of the public right-of-way (the sidewalks, connected streets and paths, bike lanes, the width of streets)—are all factors that can influence the attractiveness of living in a compact development and facilitate the ease of walking and biking to work or neighborhood services. Good site and architectural design is an important factor in creating a sense of community and a sense of place.
- ▶ **Natural Resources Conservation:** This principle encourages the incorporation of public use open space (such as parks, town squares, trails, and greenbelts) within development projects, over and above State requirements, along with wildlife and plant habitat preservation, agricultural preservation and promotion of environment-friendly practices such as energy efficient design, water conservation and stormwater management, and shade trees to reduce the ground temperatures in the summer. In addition to conserving resources and protecting species, this principle improves overall quality of life by providing places for everyone to enjoy the outdoors with family outings and by creating a sense of open space.

2016 Metropolitan Transportation Plan/Sustainable Communities Strategy

The *Metropolitan Transportation Plan/Sustainable Communities Strategy* (MTP/SCS) is a long-range plan for transportation in the region that follows SACOG's adoption of the Blueprint (SACOG 2016). The 2016 MTP/SCS covers the period from 2012 to 2036. SACOG is required by federal law to update the MTP at least every 4 years. SACOG uses the MTP/SCS to identify, in collaboration with cities, counties, and transit agencies, near-term (20 years) growth and transportation investment priorities. The City of Sacramento, as well as the other cities and counties in the region, has been updating its general plan and development code to allow and encourage Blueprint-friendly development and transit districts. The buildout assumptions, population projections, and transportation assumptions of the proposed 2035 General Plan are based largely on information provided by SACOG for the 2012 MTP/SCS. In the city, the Preferred Blueprint Scenario provides for higher densities, increased infill development, and a greater variety of housing types as generally described above.

The following guiding principles from the MTP/SCS were adopted by SACOG:

- ▶ **Smart Land Use:** Design a transportation system to support good growth patterns, including increased housing and transportation options, focusing more growth inward and improving the economic viability of rural areas.
- ▶ **Environmental Quality and Sustainability:** Minimize direct and indirect transportation impacts on the environment for cleaner air and natural resource protection.

- ▶ **Financial Stewardship:** Manage resources for a transportation system that delivers cost-effective results and is feasible to construct and maintain.
- ▶ **Economic Vitality:** Efficiently connect people to jobs and get goods to market.
- ▶ **Access and Mobility:** Improve opportunities for businesses and citizens to easily access goods, jobs, services and housing.
- ▶ **Equity and Choice:** Provide real, viable travel choices for all people throughout our diverse region.

City of Sacramento 2035 General Plan

The project site is located within the plan area of the *City of Sacramento 2035 General Plan*, which was adopted on March 3, 2015, in compliance with the requirements of California Government Code Section 65300 et seq. The general plan is a 20-year policy guide for the physical, economic, and environmental growth and renewal of the city, and it is the principal tool for the City to use in evaluating public and private building projects and municipal-service improvements. The guiding vision of the 2035 General Plan is that Sacramento will be the most livable city in America. The plan favors infill development over expanding outward into “greenfields” on the edge of the city, prioritizing reuse of underutilized properties, intensifying development near transit and mixed-use activity centers, increasing opportunities for pedestrian and bicycle use, and locating jobs closer to housing. The general plan also calls for reducing carbon emissions, which contribute to climate change, by using solar energy systems and water conservation measures, recycling, and reducing the heat island effect. The general plan buildout assumptions, population projections, and transportation assumptions are based largely on information provided by SACOG for the MTP/SCS.

The following goals and policies in the Land Use and Urban Design Element and the Economic Development Element are relevant to the analysis of land use effects:

GOAL LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

- ▶ **Policy LU 1.1.1: Regional Leadership.** The City shall be the regional leader in sustainable development and encourage compact, higher-density development that conserves land resources, protects habitat, supports transit, reduces vehicle trips, improves air quality, conserves energy and water, and diversifies Sacramento’s housing stock.
- ▶ **Policy LU 1.1.4: Leading Infill Growth.** The City shall facilitate infill development through active leadership and the strategic provision of infrastructure and services and supporting land uses.
- ▶ **Policy 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, 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.

GOAL LU 2.1: City of Neighborhoods. Maintain a city of diverse, distinct, and well-structured neighborhoods that meet the community’s needs for complete, sustainable, and high-quality living environments, from the historic downtown core to well-integrated new growth areas.

- ▶ **Policy LU 2.1.8: Neighborhood Enhancement.** The City shall promote infill development, reuse, rehabilitation, and reuse efforts that contribute positively (e.g., architectural design) to existing neighborhoods and surrounding areas.

GOAL LU 2.6: City Sustained and Renewed. Promote sustainable development and land use practices in both new development, reuse, and reinvestment that provide for the transformation of Sacramento into a sustainable urban city while preserving choices (e.g., where to live, work, and recreate) for future generations.

- ▶ **Policy LU 2.6.1: Sustainable Development Patterns.** The City shall promote compact development patterns, mixed use, and higher-development intensities that use land efficiently; reduce pollution and automobile dependence and the expenditure of energy and other resources; and facilitate walking, bicycling, and transit use.

City of Sacramento Central City Community Plan

The project site is located within the Capitol District of the Central Business District (CBD) of the Central City Community Plan area, which is the core area of the city of Sacramento. The CBD is an urban downtown area that includes the State Capitol building, State government buildings, corporate offices and businesses, high-rise condominiums, historic neighborhoods, parks and recreational areas, nightlife, restaurants and shops, schools, and industrial and manufacturing complexes, all within a tree-lined street grid. The Capitol District of the CBD includes a mixture high- mid-, and low-rise governmental, office, residential, entertainment, and visitor-serving uses built on a formal framework of streets and park spaces. The Capitol District includes the State Capitol building, Capitol Park, and Capitol Mall. The CBD is identified in the 2035 General Plan as a Priority Investment Area (PIA). PIAs are areas of the city that are the highest priority for investment and development through infill, reuse, or redevelopment. The 2035 General Plan vision for the CBD is a vibrant downtown core that will continue to serve as the office, business, governmental, retail, visitor-serving, and entertainment center for the city and the region. The community plan is intended to supplement the citywide policies above.

Uses identified for the CBD include office, retail, and service uses; condominiums and apartments; and gathering places, such as plazas, courtyards, and parks (City of Sacramento 2014). All development in the CBD should have easy access to transit and the CBD contemplates office uses with a floor area ratio (FAR) of up to 15.0. FAR refers to the ratio of a building's gross floor area to the size of the parcel on which it is developed.

4.2.2 Environmental Setting

The Capitol Annex project site is located in downtown Sacramento on the State-owned Capitol grounds, bounded by 10th Street on the west, N Street on the south, L Street on the north, and 12th Street on the east (roughly following the alignment of 12th Street across Capitol Park), on the site of the State Capitol building (Figures 3-1 and 3-2). The site encompasses portions of the western half of the 35-acre Capitol Park, which occupies 10 city blocks and is a major civic and state historic resource. The project site contains the Historic Capitol, which would remain in place; the Annex, which would be demolished and replaced; and Capitol Park hardscape paths and landscaped areas in the vicinity of the State Capitol building, which would be affected during construction and then restored. The CAP designates landscaped portions of Capitol Park as Parks and Open Space but designates walkways, hardscape, and the Historic Capitol and Annex as Other Existing Use (Figure 4.2-1). Land uses surrounding the project site consist of the State-owned Jesse M. Unruh Office Building, Capitol fountain, and the Stanley Mosk Library and Courts Building across 10th Street to the west; a City of Sacramento–operated parking structure with ground floor retail and the Senator Office building across L Street to the north; Capitol Park to the east; and the Legislative Office Building, Lewis Apartments, and California Department of Transportation Headquarters building across N Street to the south (Figure 3-2).

4.2.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential land use impacts is based on a review of the planning documents pertaining to the project study area, including the State's CAP, the City's 2035 General Plan and Zoning Code, and the Sacramento Central City Community Plan. The physical layout and other characteristics of the project study area were examined during site visits and in reviews of relevant planning documents to determine whether alterations of the project site would result in physical divisions of established communities.

As described in Section 4.2.1, “Regulatory Background,” DGS developed the CAP and is responsible for its administration, implementation, and necessary revisions. The Capitol Annex Project, authorized by legislation, would be implemented by the JRC. As State entities, the JRC and DGS are exempt from complying with local or county plans, policies, or zoning regulations. However, the City may be required to make a finding that the project is consistent with the 2035 General Plan before approving any encroachment or utility permits needed to construct the project (Government Code Section 65401). Therefore, the analysis of potential land use impacts includes a review of principles, goals, and policies contained in applicable local planning documents (listed above in the “Local” section).

THRESHOLDS OF SIGNIFICANCE

A land use impact would be significant if implementation of the Capitol Annex Project would:

- ▶ physically divide an established community or
- ▶ cause a significant environmental impact through a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.2-1: Potential to Divide an Established Community

The Capitol Annex Project would consist of three primary components—an underground visitor/welcome center, demolition and replacement of the Annex, and new underground parking—all of which would be located within the grounds of Capitol Park in downtown Sacramento. Although project construction would temporarily disrupt use of the west end of Capitol Park, no part of the project would create a barrier within the established downtown community. Therefore, the project would have a **less-than-significant** impact related to dividing an established community.

The project would consist of three primary components: an underground visitor/welcome center on the west side of the Historic Capitol between the State Capitol building and 10th Street, the Annex demolition and replacement on the east side of the Historic Capitol, and new underground parking on the south side of the Historic Capitol between the State Capitol Building and N Street. The existing land uses in the project vicinity are characterized by urban development, including public and private office uses, parking lots, residential uses, retail uses, commercial uses, and parks that are typical of urban areas. Construction activities for project components would temporarily disrupt use of the west end of Capitol Park, which is a major civic resource and focal point of the Capitol Area. During construction, pedestrian, bicycle, vehicular, and transit access would be maintained around the fenced construction area. Although temporary detours resulting in one or two blocks of additional travel distance may be implemented at various times during construction, construction activities would not divide the downtown community. After construction is completed, the new Annex would be consistent in location, form, and function with the existing Annex, and the Capitol Park pathways, hardscape, and landscaping would be reestablished. The new underground facilities beneath Capitol Park would not alter or conflict with the surface use of these parts of the park (Figure 4.2-2). Although the specific alignment of paths and landscaping on the project site might change under the project, Capitol Park would be maintained as an arboretum, a central element in the Capitol Area’s open space framework, and a major civic and state historic resource consistent with the State’s CAP and the City’s CBD. Existing options for north/south and east/west travel for vehicles, transit, bicycles, and pedestrians would be maintained. The project would not create a barrier within downtown and would have **less-than-significant** impact related to dividing an established community.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.2-2: Consistency with Land Use Plans and Documents

The Capitol Annex Project would be consistent with the objectives and purposes of the State's CAP and the City's 2035 General Plan, its Zoning Code, and the Sacramento Central City Community Plan. The project would not conflict with environmental plans, goals, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. This impact would be **less than significant**.

The Capitol Annex was not designated for redevelopment in the State's CAP or the CAP Implementation Program. However, the 2015 CAP Progress Report provided a list of energy upgrades and modifications related to building lighting, controls, window shading, and other energy equipment to reduce energy demands. In addition, the Office of the Governor's 2016 Five-Year Infrastructure Plan, which proposed investment in State infrastructure, identified the Capitol Annex as a State building with serious deficiencies in building systems, such as fire and life safety, electrical, and plumbing, that needs renovation or replacement. In 2016, the legislature passed SB 836, providing funding to address deficiencies in the State Capitol Annex, and the 2017 California State Capitol Annex Project Planning Study then documented the current deficiencies and the future design goals for the Capitol Annex to shape the future of the Legislative Branch for the next 50–100 years; provide the public with a safe, inviting building to participate in the governmental process; and provide the state with one of the most energy-efficient state capitol buildings in the United States (Joint Committee on Rules 2017).

Although the new Annex would be larger by approximately 200,000 square feet than the existing building, it would not contribute to attainment of the office space goals identified in the CAP. Rather, the project would serve the same purpose as the existing Annex and would be occupied by approximately the same number of elected officials and staff. Nonetheless, the project is consistent with the statutory objectives of the CAP, as listed in Section 4.2.1, above. The new Annex would address the identified building system deficiencies, efficiency measures, and design goals. It also would be designed to meet the 2019 Building Energy Efficiency Standards, achieve zero net energy, and achieve the Leadership in Energy and Environmental Design (LEED) v4 Silver certification.

As stated above, although the west end of Capitol Park would be disturbed during construction, after construction of the visitor/welcome center, new Annex, and underground parking is complete, the new Annex would be consistent with the location, form, and function of the existing Annex, and Capitol Park pathways, hardscape, and landscaping would be reestablished. The new underground facilities beneath Capitol Park would not alter or conflict with the surface use of these parts of Capitol Park. Although the specific alignment of paths and landscaping on the project site might change under the project, Capitol Park would be maintained as an arboretum, a central element in the Capitol Area's open space framework, and a major civic and state historic resource.

The Capitol View Protection Act (discussed in more detail in Section 4.15, "Aesthetics, Light, and Glare") does not define a height restriction for the Historic Capitol or Annex; however, the height of the new Annex building would be approximately 125 feet, which is less than the current colonnade level below the base of the Historic Capitol dome. In addition, the aesthetics and materials of the new Annex would be developed to be consistent with the Historic Capitol to create a "one building" feel for the State Capitol building. Building materials for the Annex would be selected for durability, quality, and consistency with the Historic Capitol.

Although the State is not subject to the requirements of local plans, the JRC and DGS have considered consistency with the Sacramento Region Blueprint, 2016 MTS/SCS, *City of Sacramento 2035 General Plan*, and Central City Community Plan. Both the CAP and these local land use plans call for increasing infill development in Sacramento, intensifying uses on underutilized sites near transit, increasing opportunities for pedestrian and bicycle use, prioritizing energy- and water-efficient buildings and reducing carbon emissions, and locating jobs closer to housing. The project would replace the existing Annex building with a new, larger building to meet present space requirements for legislative and executive functions for the State of California at the State Capitol building. The project would provide more efficient use of the existing site by providing additional building space, as well as incorporating the underground visitor/welcome center and parking, which would retain aboveground park and open space. As stated above, the Annex would be designed to meet the 2019 Building Energy Efficiency Standards, achieve zero net energy, and achieve the LEED v4 Silver certification, supporting reduction of the city's carbon footprint. The building would also include water conservation measures, including low-flow/high-efficiency fixtures, that exceed

2016 Title 24 water efficiency requirements. Furthermore, the Annex is located one block north of Sacramento Regional Transit's Archives Plaza light rail station, and bus stops for several different routes and transit providers (e.g., Sacramento Regional Transit, El Dorado Transit) are located within four blocks of the project site.

Implementing the project would not result in conflicts with plans, goals, or policies adopted for the purpose of avoiding or mitigating an environmental effect. Rather, the project would be consistent with and would support implementation of CAP objectives, as well as local land use goals. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.3 TRANSPORTATION AND CIRCULATION

This section describes the existing transportation system in the vicinity of the project site and evaluates potential impacts on the system associated with implementation of the project. Roadway, transit, bicycle, and pedestrian components of the overall transportation system are included in the analysis. Impacts are evaluated under near-term (present-day) conditions with and without the project. The traffic analysis focuses on a specific project study area for transportation and circulation, which is defined in Section 4.3.2, "Environmental Setting," below.

The project would not increase the number of employees working on site. Therefore, the analysis presented in this section primarily accounts for construction related traffic impacts and the following two changes associated with the project:

- ▶ new vehicular access point located on N Street and removal of L Street access and
- ▶ addition of up to 50 parking spaces on the project site.

ANALYSIS SCENARIOS

The following scenarios are analyzed in this section:

- ▶ Existing Conditions represent the baseline condition, against which project impacts are measured.
- ▶ Existing-Plus-Project Conditions reflect changes in travel conditions associated with implementation of the project.

An analysis of the project's potential cumulative traffic and circulation impacts evaluated based on the project's consistency with the Central City Specific Plan Environmental Impact Report (EIR) (City of Sacramento 2018) is provided in Chapter 5, "Cumulative Impacts," of this EIR.

4.3.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to transportation and circulation are applicable to the Capitol Annex Project. However, federal regulations relating to the Americans with Disabilities Act, Title VI, and environmental justice relate to transit service.

STATE

Interstate 5 Transportation Corridor Concept Report

In 2010, the California Department of Transportation (Caltrans) released the *Interstate 5 Transportation Corridor Concept Report*, which addresses portions of Interstate 5 (I-5) within the study area. Page 4 of the report shows existing operations on I-5 within the study area as being at level of service (LOS) F. The report also indicates a Concept LOS F for this corridor. The concept LOS represents the minimum acceptable service conditions over the next 20 years. The report indicates that for existing LOS F conditions, no further degradation is permitted as indicated by the applicable performance measure.

U.S. 50 Transportation Concept Report and Corridor System Management Plan

In 2014, Caltrans released the *United States Route 50 Transportation Concept Report and Corridor System Management Plan* for portions of U.S. Route 50 (U.S. 50) within the study area. Table 13 of this report shows existing operations on U.S. 50 as being at LOS F. The report also indicates a Concept LOS E for this corridor.

The above-referenced Caltrans LOS results are based on daily volume-to-capacity comparisons and do not necessarily consider specific operational characteristics (e.g., length of weave sections, peak-hour factors) within the I-5 and U.S. 50 corridors. Nevertheless, these data are valuable in understanding Caltrans's expectations of the corridors' current and projected operating performance.

Senate Bill 743

SB 743, passed in 2013, required the California Governor's Office of Planning and Research (OPR) to develop new CEQA guidelines that address traffic metrics under CEQA. As stated in the legislation, upon adoption of the new guidelines, "automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment pursuant to this division, except in locations specifically identified in the guidelines, if any." OPR recently updated its State CEQA Guidelines to implement SB 743 to require that vehicle miles traveled (VMT) be the primary metric used to identify transportation impacts. Local agencies have an opt-in period until July 1, 2020.

The enactment of SB 743 established CEQA exemptions for certain qualifying projects. Specifically, PRC Section 21155.4 states as follows:

- (a) Except as provided in subdivision (b), a residential, employment center, as defined in paragraph (1) of subdivision (a) of Section 21099, or mixed use development project, including any subdivision, or any zoning change, that meets all of the following criteria is exempt from the requirements of this division:
 - 1) The project is proposed within a transit priority area, as defined in subdivision (a) of Section 21099.
 - 2) The project is undertaken to implement and is consistent with a specific plan for which an environmental impact report has been certified.
 - 3) The project is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy for which the State Air Resources Board, pursuant to subparagraph (H) of paragraph (2) of subdivision (b) of Section 65080 of the Government Code, has accepted a metropolitan planning organization's determination that the sustainable communities strategy or the alternative planning strategy would, if implemented, achieve the greenhouse gas emissions reduction targets.
- (b) Further environmental review shall be conducted only if any of the events specified in Section 21166 have occurred.

PRC Section 21099 defines an employment center and a transit priority area as follows:

- ▶ "Employment center project" is a project that is located on a property zoned for commercial uses with a floor area ratio of no less than 0.75 and that is located within a transit priority area.
- ▶ "Transit priority area" is an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a transportation improvement program adopted pursuant to Section 450.216 or 450.322 of 23 CFR.

REGIONAL PLANS AND PROGRAMS

The Sacramento Area Council of Governments (SACOG) is responsible for the preparing and updating the Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) and the corresponding Metropolitan Transportation Improvement Program (MTIP) for the six-county Sacramento region (SACOG 2016). The MTP/SCS provides a 20-year transportation vision and corresponding list of projects. The MTIP identifies short-term projects (7-year horizon) in more detail. The current MTP/SCS was adopted by the SACOG board in 2016.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

On March 3, 2015, the City of Sacramento City Council adopted the 2035 General Plan. The Mobility Element of the City of Sacramento's 2035 General Plan outlines goals and policies that coordinate the transportation and circulation system with planned land uses. The following LOS policy is relevant to this study:

- ▶ **Policy M 1.2.2: Level of Service (LOS) Standard.** The City shall implement a flexible context-sensitive Level of Service (LOS) standard and will measure traffic operations against the vehicle LOS thresholds established in this policy. The City will measure vehicle LOS based on the methodology contained in the latest version of the Highway Capacity Manual (HCM) published by the Transportation Research Board. The City's specific vehicle LOS thresholds have been defined based on community values with respect to modal priorities, land use context, economic development, and environmental resources and constraints. As such, the City has established variable LOS thresholds appropriate for the unique characteristics of the City's diverse neighborhoods and communities. The City will strive to operate the roadway network at LOS D or better for vehicles during typical weekday conditions, including AM and PM peak hour, with certain exceptions mapped on Figure M-1 (and listed in the actual General Plan document).
 - A. Core Area (Central City Community Plan Area) – LOS F allowed
 - P. Priority Investment Areas – LOS F allowed
 - C. LOS E roadways [11 distinct segments listed]. LOS E is also allowed on all roadway segments and associated intersections located within ½ mile walking distance of a light rail station.
 - D. LOS F roadways [24 distinct segments listed]
 - E. If maintaining the above LOS standards 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, promote non-vehicular transportation and/or implement vehicle trip reduction measures as part of a development project or a city-initiated project. Additionally, the City shall not expand the physical capacity of the planned roadway network to accommodate a project beyond that identified in Figure M4 and M4a (2035 General Plan Roadway Classification and Lanes).

According to Figure M1 (Vehicle Level of Service Exception Areas) of the 2035 City of Sacramento General Plan, the project is located within a Priority Investment Area. The project site is also located within the Core Area (Central City Community Plan Area), which is bounded by the Sacramento River, American River, Broadway, and Alhambra Boulevard. All study intersections are located within the Core Area, as well as a Priority Investment Area; therefore, LOS F is allowed at all study locations. The City's policy was adopted to allow decreased levels of service (i.e., LOS F) in the urbanized Core Area of the city, which supports more transportation alternatives and places residents proximate to employment, entertainment, retail, and neighborhood centers and thus reduces overall VMT and results in environmental benefits (e.g., improved air quality and reduced greenhouse gas [GHG] emissions). Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area.

The following policies from the City of Sacramento 2035 General Plan are also applicable to this analysis:

- ▶ **Policy M 1.2.3: Transportation Evaluation.** The City shall evaluate discretionary projects for potential impacts to traffic operations, traffic safety, transit service, bicycle facilities, and pedestrian facilities, consistent with the City's Traffic Study Guidelines.
- ▶ **Policy M 3.1.14: Direct Access to Stations.** The City shall ensure that development projects located in the Central City and within ½ mile walking distance of existing and planned light rail stations provide direct pedestrian and bicycle access to the station area, to the extent feasible.
- ▶ **Policy M 4.2.1: Accommodate All Users.** The City shall ensure that all new roadway projects and any reconstruction projects designate sufficient travel space for all users including bicyclists, pedestrians, transit riders, and motorists except where pedestrians and bicyclists are prohibited by law from using a given facility.

Central City Specific Plan

In April 2018, the City of Sacramento adopted the Central City Specific Plan, which establishes a future vision for the Sacramento Central City area, including the site of the Capitol Annex building (Capitol Annex, Annex). Similar to 2035 General Plan Policy M 3.1.14, Central City Specific Plan Policy M.6.11, Access to Transit Stations, supports safe and convenient pedestrian and bicycle access to and from light-rail and streetcar stations while minimizing conflicts between travel modes.

4.3.2 Environmental Setting

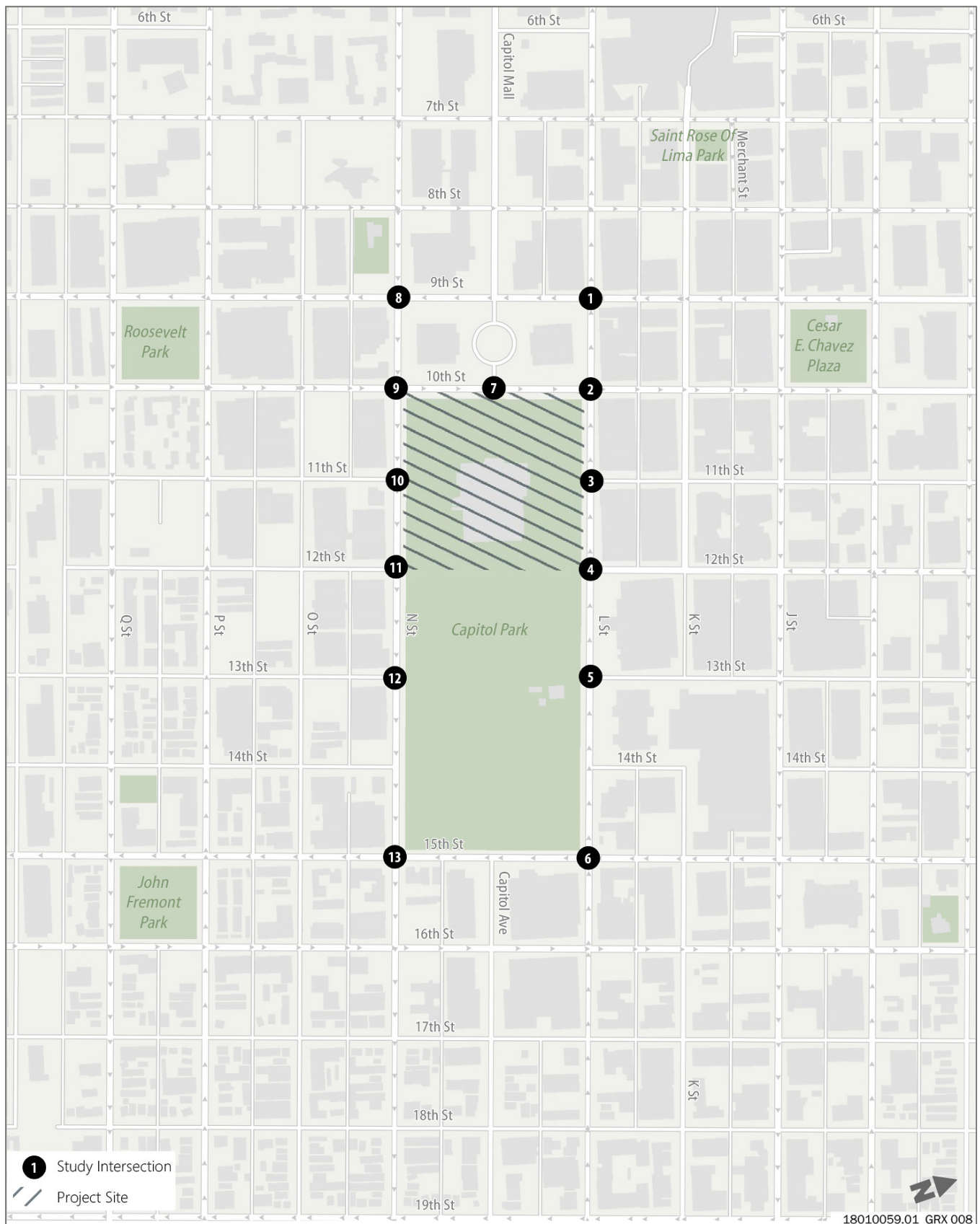
This section describes the existing environmental setting related to roadway, bicycle, pedestrian, and transit facilities, which is the baseline scenario upon which project-specific impacts are evaluated. The baseline scenario is based on data collection and field observations conducted in February 2017, July 2018, and March 2019.

PROJECT STUDY AREA

The following factors were considered when developing the transportation and circulation study area: the project's expected travel characteristics (including number of vehicle trips and directionality of those trips), primary travel routes to and from the project vicinity, anticipated parking locations, and other considerations. Figure 4.3-1 shows the study area, project site, and the following 13 study intersections selected for analysis:

- | | |
|-----------------------------|--------------------------|
| 1. L Street/9th Street | 8. N Street/9th Street |
| 2. L Street/10th Street | 9. N Street/10th Street |
| 3. L Street/11th Street | 10. N Street/11th Street |
| 4. L Street/12th Street | 11. N Street/12th Street |
| 5. L Street/13th Street | 12. N Street/13th Street |
| 6. L Street/15th Street | 13. N Street/15th Street |
| 7. Capitol Mall/10th Street | |

The study area also includes bicycle, pedestrian, and transit facilities in the project vicinity.



Source: Figure provided by Fehr & Peers in 2019

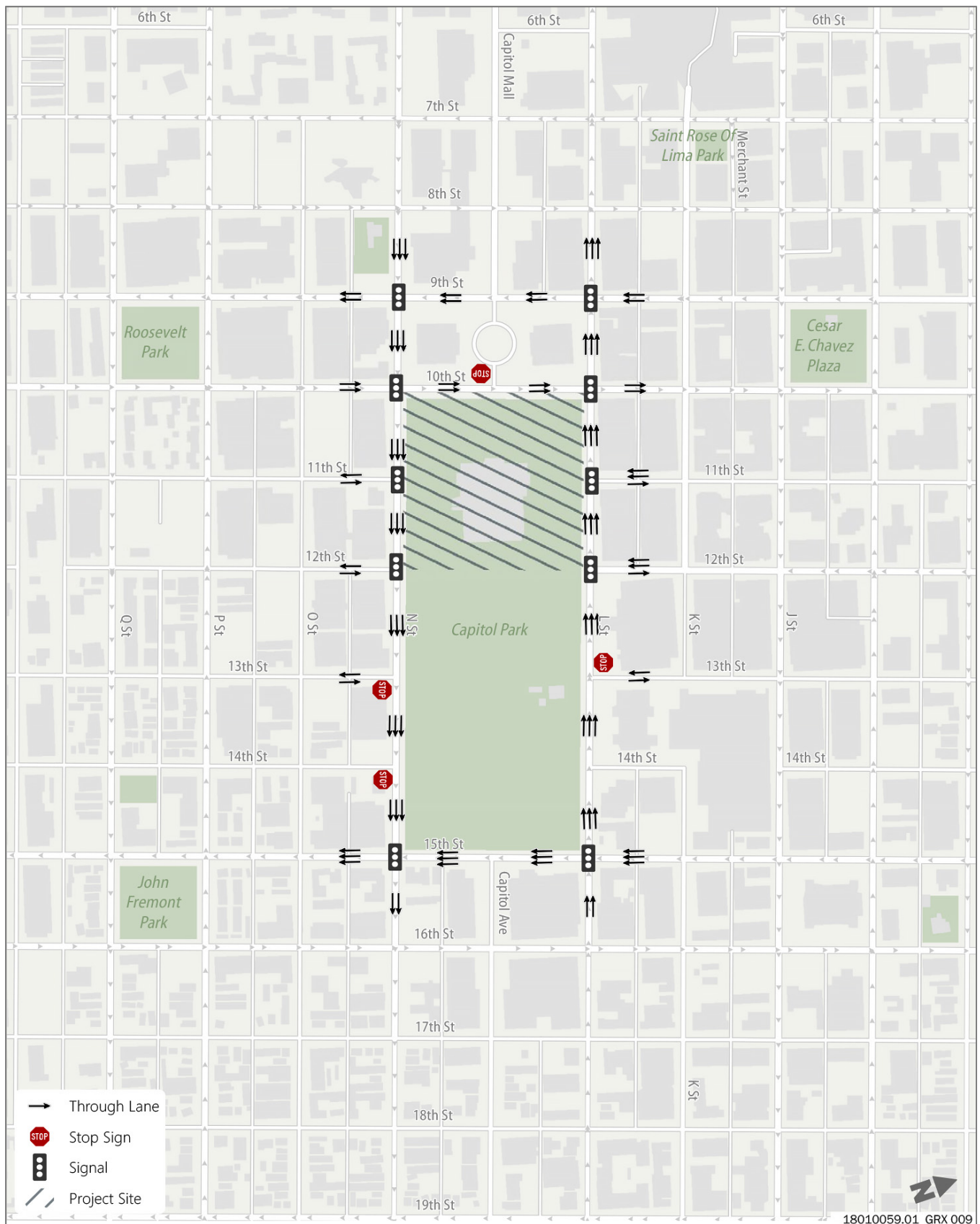
Figure 4.3-1 Study Area

Roadway Network

The study area is served by a system of gridded streets composed of numbered north-south–running streets and lettered east-west–running streets, spaced approximately every 400 feet. Most portions of the street grid feature east-west–running alleys located halfway between lettered streets, resulting in 200-foot north-south spacing of public roadways. The following key roadways within this system serve trips associated with the Capitol Annex:

- ▶ 9th Street is a primary two-lane, one-way southbound roadway within the study area. It forms a couplet with 10th Street. Bicycle lanes and curbside parking are located on both sides of the roadway.
- ▶ 10th Street is a primary two-lane, one-way northbound roadway within the study area. It forms a couplet with 9th Street. Bicycle lanes are provided on the right side of the roadway (including buffered or parking-protected bike lanes between I Street and Q Street). Curbside parking is available on both sides of the roadway.
- ▶ 11th Street is minor two-lane, two-way, north-south roadway within the study area. Bicycle lanes are located on both sides of the street south of P Street. Curbside parking is located on both sides of the street throughout the study area. Between J Street and L Street, the roadway is disconnected for vehicle traffic as portions of the roadway are dedicated to pedestrian plazas.
- ▶ 12th Street is a minor, generally two-lane roadway within the study area. North of J Street, 12th Street consists of two one-way southbound vehicle lanes and a dedicated light-rail lane. Between J Street and L Street, 12th Street consists of two southbound vehicle lanes and one northbound vehicle lane with shared access with light-rail between K Street and J Street. South of N Street, 12th Street is a two-way, north-south roadway. Light-rail tracks and vehicle travel lanes are shared between O Street and Q Street. Between Q Street and R Street, the roadway is disconnected for vehicle traffic because of the light-rail. Curbside parking is generally located on both sides of the roadway.
- ▶ 15th Street is a primary three-lane, one-way southbound roadway within the study area. It forms a couplet with 16th Street. Curbside parking is available on both sides of the roadway.
- ▶ L Street is a primary three-lane, one-way westbound roadway within the study area. Curbside parking is located on both sides of the roadway. The roadway connects to I-5 on-ramps in the western portion of the study area.
- ▶ Capitol Mall is a two-lane, two-way roadway within the study area that provides access between West Sacramento and Old Sacramento and downtown. Bike lanes are present on both sides of the roadway. Curbside parking is located on the inner and outer edges of the traffic circle located between 9th Street and 10th Street.
- ▶ N Street is a primary three-lane, one-way eastbound roadway within the study area. This three-lane roadway extends through downtown Sacramento before transitioning to a two-lane, two-way roadway east of 21st Street. Curbside parking is located on both sides of the roadway.

Figure 4.3-2 illustrates the study roadway facilities, including the number and direction of travel lanes, as well as existing traffic controls present at all study intersections.



Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-2 Existing Roadway Facilities and Traffic Controls

Truck Routes

All federal and state highways within the city of Sacramento, including I-5 and U.S. 50 in the study area, have been designated as truck routes by Caltrans and are included in the National Network for Surface Transportation Assistance Act (STAA) of 1982. The City identified 31 two-way streets as city truck routes in addition to all one-way streets, as shown on the STAA truck routes map. Within the study area, the following streets are considered city truck routes:

- ▶ 7th Street,
- ▶ 8th Street,
- ▶ 9th Street,
- ▶ 10th Street,
- ▶ 15th Street,
- ▶ 16th Street,
- ▶ N Street,
- ▶ P Street, and
- ▶ Q Street.

TRAFFIC DATA COLLECTION

Traffic counts were collected at the study intersections on Wednesday, February 15, 2017, Thursday, July 26, 2018, and Tuesday, March 26, 2019, during the a.m. (7:00 to 9:00 a.m.) and p.m. (4:00 to 6:00 p.m.) peak periods. The 2017 and 2018 data were collected to support the analysis of other projects, but provide data for the Annex Project study area facilities. During all counts, weather conditions were generally dry. The counts conducted in February 2017 and March 2019 reflect typical peak period travel patterns in downtown Sacramento when the Sacramento City Unified School District and the California State Legislature are in full session. The count data collected in July 2018 (when schools were not in session) were adjusted based on the February 2017 and March 2019 count data to reflect typical peak period travel patterns. Where an imbalance occurred between the February 2017 and March 2019 data, counts were adjusted based on the most recent March 2019 data. In addition to collecting vehicle turning movements at the study intersections, all counts included pedestrian and bicycle activity.

STUDY PERIODS

Based on the traffic data collection, the a.m. and p.m. peak hours within the study area occurred from 7:45 to 8:45 a.m. and 4:30 to 5:30 p.m. The a.m. and p.m. peak hours coincide with the expected peak commute times for office employees in downtown Sacramento.

ROADWAY SYSTEM

Level of Service Definitions

Each study intersection was analyzed using the concept of LOS. LOS is a qualitative measure of traffic operating conditions whereby a letter grade, from A (the best) to F (the worst), is assigned. These grades represent the perspective of drivers and are an indication of the comfort and convenience associated with driving. In general, LOS A represents free-flow conditions with no congestion, and LOS F represents severe congestion and delay under stop-and-go conditions. Table 4.3-1 displays the delay range associated with each LOS category for signalized and unsignalized intersections.

Table 4.3-1 Intersection Level of Service Definitions

Level of Service	Description (for Signalized Intersections)	Average Delay (Seconds/Vehicle) Signalized Intersections	Average Delay (Seconds/Vehicle) Unsignalized Intersections
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0	> 10.0 to 15.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0	> 15.0 to 25.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop, and individual cycle failures are noticeable.	> 35.0 to 55.0	> 25.0 to 35.0
E	Operations with high delay values indicating poor progression, and long cycle lengths. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0	> 35.0 to 50.0
F	Operations with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	> 80.0	> 50.0

Notes: LOS = level of service; V/C ratio= volume-to-capacity ratio.

LOS at signalized intersections and roundabouts based on average delay for all vehicles. LOS at unsignalized intersections is reported for entire intersection and for minor street movement with greatest delay.

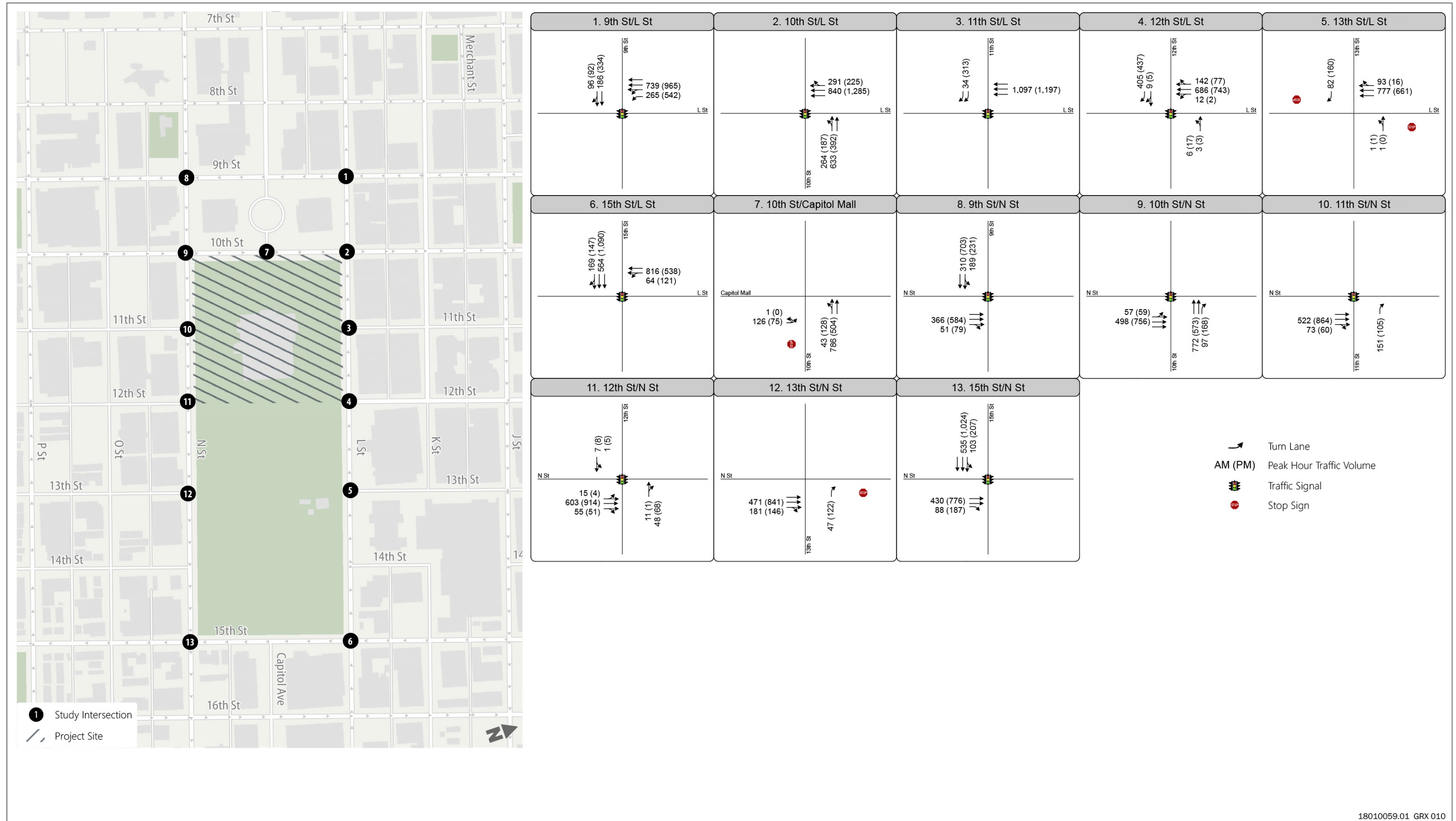
Source: TRB 2016

For signalized intersections, LOS is based on the average delay experienced by all vehicles passing through the intersection. For side-street stop-controlled intersections, the delay and LOS for the overall intersection are reported, along with the delay for the worst-case movement.

Existing Traffic Volumes

Figure 4.3-3 displays the existing a.m. and p.m. peak-hour intersection traffic volumes, traffic controls, and lane configurations.

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Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-3 Existing Conditions Peak-Hour Traffic Volumes and Lane Configurations

Existing Intersection Operations

Table 4.3-2 displays the existing peak-hour intersection operations at the study intersections (refer to Appendix D for technical calculations).

Table 4.3-2 Intersection Operations – Existing Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions Delay ¹	Existing Conditions LOS
9th Street/L Street	Signal	a.m. p.m.	7 21	A C
10th Street/L Street	Signal	a.m. p.m.	17 13	B B
11th Street/L Street	Signal	a.m. p.m.	11 11	B B
12th Street/L Street	Signal	a.m. p.m.	11 10	B A
13th Street/L Street	Side-street stop	a.m. p.m.	5 (14) 5 (14)	A (B) A (B)
15th Street/L Street	Signal	a.m. p.m.	18 11	B B
10th Street/Capitol Mall	Side-street stop	a.m. p.m.	3 (11) 3 (10)	A (B) A (A)
9th Street/N Street	Signal	a.m. p.m.	9 13	A B
10th Street/N Street	Signal	a.m. p.m.	7 6	A A
11th Street/N Street	Signal	a.m. p.m.	6 6	A A
12th Street/N Street	Signal	a.m. p.m.	4 4	A A
13th Street/N Street	Side-street stop	a.m. p.m.	1 (4) 2 (8)	A (A) A (A)
15th Street/N Street	Signal	a.m. p.m.	10 16	B B

Notes: LOS = level of service; SSSC = side-street stop-controlled.

¹ For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts on intersections are determined based on the overall LOS and average delay. Intersection LOS and delay are calculated based on the procedures and methodology contained in the Highway Capacity Manual, sixth edition (TRB 2016). All intersections were analyzed in SimTraffic.

Source: Data provided by Fehr & Peers in 2019

All intersections currently operate at LOS C or better during both the a.m. and p.m. peak hours. Overall, the existing roadway system within the area can be characterized as operating efficiently. Motorists typically incur modest delays, do not experience sustained vehicle queues, and benefit from the coordinated traffic signal system along the primary commute corridors that connect downtown to the regional freeway system.

TRANSIT PRIORITY AREA

As previously stated, PRC Section 21099 defines a transit priority area as an area within one-half mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within a planning horizon included in a transportation improvement program adopted pursuant to Section 450.216 or 450.322 of 23 CFR.

PRC Section 21064.3 defines a major transit stop as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

As described below under “Transit System,” the Capitol Annex Project is located within one-half mile of multiple major transit stops; therefore, the project site is located within a transit priority area.

EXISTING VEHICLE MILES TRAVELED PER SERVICE POPULATION

Table 4.3-3 displays the existing daily VMT per service population (total residents and employees) within the study area. The study area used for the VMT calculations is the Sacramento Core Area (Central City Community Plan Area).

Table 4.3-3 Sacramento Core Area Vehicle Miles Traveled per Service Population – Existing Conditions

Scenario	Sacramento Core Area Residents	Sacramento Core Area Employees	Sacramento Core Area Service Population	Sacramento Core Area Generated Daily Vehicle Trips	Sacramento Core Area Generated Daily VMT	Sacramento Core Area Generated Daily VMT per Service Population
Existing Conditions	25,936	87,641	113,577	534,772	4,190,318	36.89

Note: VMT = vehicle miles traveled.

Source: Data provided by Fehr & Peers in 2019

With implementation of the City’s Central City Specific Plan, the study area average VMT per employee is 77 percent of the existing countywide average, which is below the 85-percent threshold used to identify significant impacts (City of Sacramento 2018). This means that implementation of the Central City Specific Plan, including consistent land use development and transportation improvements, would have no significant impact on per employee VMT in the Central City Specific Plan area and would not require further project-specific analysis of VMT for the purposes of CEQA compliance.

TRANSIT SYSTEM

Local transit service within the study area is provided by the Sacramento Regional Transit District (SacRT), which operates 70 bus routes and 43 miles of light-rail on three lines (Blue Line, Gold Line, and Green Line) throughout a nearly 400-square-mile service area. Buses and light-rail run 365 days a year, using 97 light-rail vehicles, 192 buses, and 20 shuttle vans. Currently, weekday light-rail ridership averages about 40,000 daily passenger boardings, and weekday bus ridership is approximately 37,000 daily passenger boardings.

The project site is located close to multiple light-rail stations. The Archives Plaza station, located one block south of the State Capitol building, serves all three light-rail lines in both directions, and the Cathedral Square Station is located one block north of the Capitol building and serves Blue Line trains in both directions.

The Blue and Gold Lines generally operate on 15-minute headways with 30-minute headways during evenings, weekend mornings, and holidays. The Green Line operates on 30-minute headways throughout the day; however, no service is provided on Saturday, Sunday, or holidays.

- ▶ The Blue Line connects to the Watt/I-80 Station to the north and Cosumnes River College Station to the south. It operates from about 4:00 a.m. through 1:00 a.m. Monday through Friday, from about 4:30 a.m. through 1:00 a.m. on Saturday, and from about 5:00 a.m. through 11:00 p.m. on Sunday and holidays.
- ▶ The Gold Line connects to the Sacramento Valley Station (Amtrak) in downtown Sacramento to the west and Historic Folsom Station to the east. During weekdays, every other eastbound trip terminates at Sunrise Station. The Gold Line operates from about 4:00 a.m. through 12:30 a.m. Monday through Friday, from about 5:00 a.m. through 12:30 a.m. on Saturday, and from about 5:00 a.m. through 10:30 p.m. on Sunday and holidays.

- ▶ The Green Line connects the 13th Street Station in downtown Sacramento and Township 9 Station in the River District. It operates from about 6:00 a.m. through 9:00 p.m. Monday through Friday. No service is provided on Saturday, Sunday, or holidays.

Multiple bus routes provided by SacRT serve the study area and have stops close to the project site. These routes are described in Table 4.3-4.

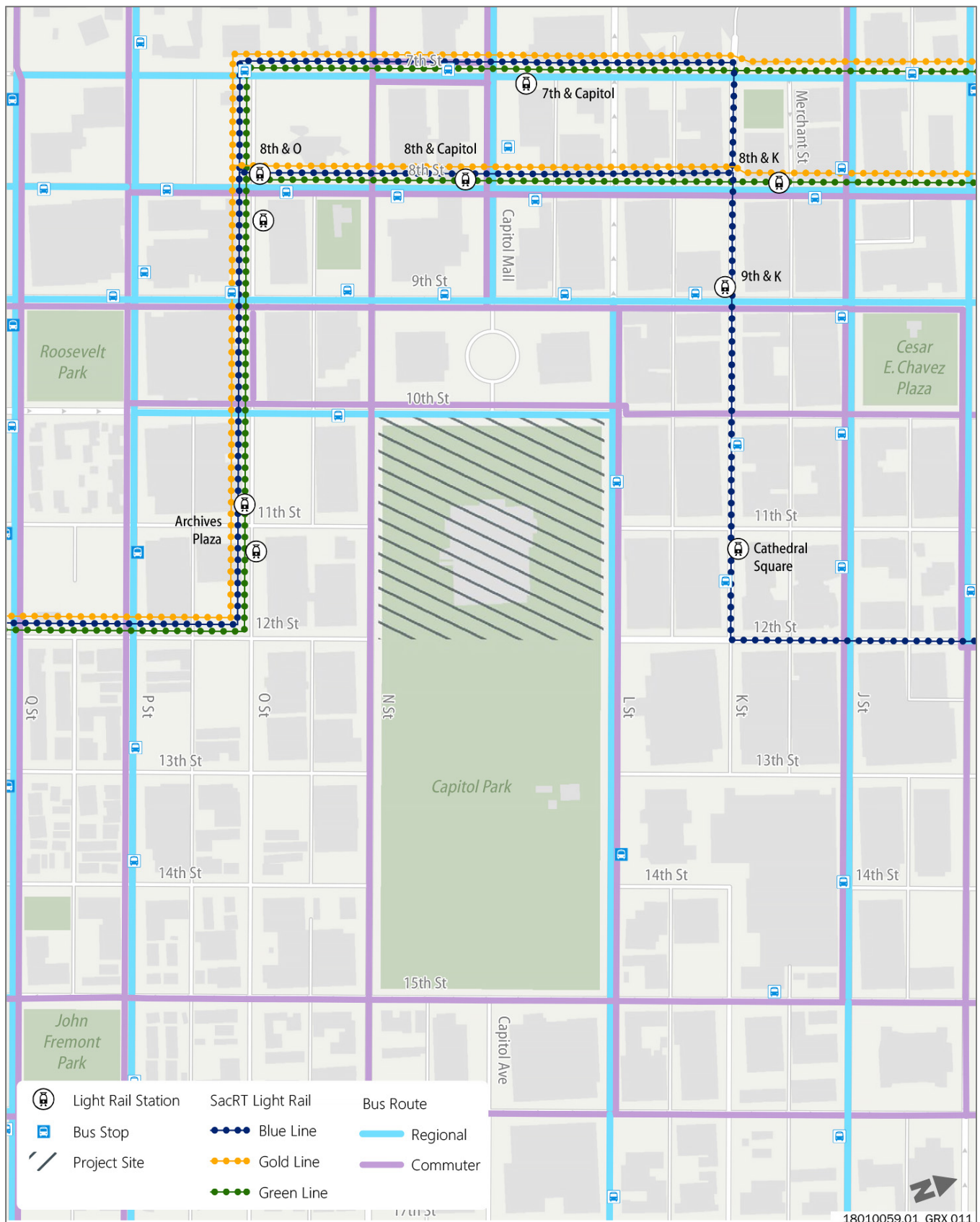
Table 4.3-4 SacRT Bus Service within Quarter-Mile of the Project Site

Route	Connection	Weekday Peak-Hour Frequency (Minutes)	Weekday Service Span Begins	Weekday Service Span Ends	Weekend Service Span Begins Saturday (Sunday)	Weekend Service Span Ends Saturday (Sunday)
2	Pocket Area, Land Park	60	5:30 a.m.	7:00 p.m.	N/A	N/A
3	Pocket Area	30	6:15 a.m. 4:15 p.m.	8:00 a.m. 5:45 p.m.	N/A	N/A
6	Pocket Area, Land Park	60	6:15 a.m.	8:00 p.m.	N/A	N/A
7	Rush River, South Land Park	60	6:15 a.m.	8:00 p.m.	N/A	N/A
11	Club Center, North Park	30	6:15 a.m.	8:00 p.m.	7:15 a.m. (N/A)	8:15 p.m. (N/A)
15	Del Paso Heights, Richards Boulevard	30	5:30 a.m.	9:00 p.m.	8:00 a.m.	9:00 p.m.
29	Arden	30	6:30 a.m. 4:30 p.m.	7:45 a.m. 6:15 p.m.	N/A	N/A
30	California State University	15	5:30 a.m.	10:15 p.m.	6:30 a.m. (6:30 a.m.)	9:15 p.m. (8:45 p.m.)
34	East Sacramento, Midtown	60	5:00 a.m.	7:00 p.m.	N/A	N/A
38	University/65th Street Light-Rail Station Upper Land Park	60	6:30 a.m.	9:00 p.m.	7:45 a.m. (8:00 a.m.)	8:45 p.m. (6:30 p.m.)
51	Florin Area, Oak Park, Broadway Area	15	5:30 a.m.	10:30 p.m.	6:15 a.m. (5:15 a.m.)	10:45 p.m. (9:15 p.m.)
62	Pocket Area, Sacramento City College	30	5:45 a.m.	9:30 p.m.	7:15 a.m. (N/A)	10:00 p.m. (N/A)
86	Marconi/Arcade Light-Rail Station	30	5:30 a.m.	9:15 p.m.	6:30 a.m. (8:00 a.m.)	8:45 p.m. (6:00 p.m.)
88	Del Paso Heights	30	5:45 a.m.	9:15 p.m.	6:15 a.m. (8:15 a.m.)	9:15 p.m. (9:15 p.m.)
109	Orangevale	30	6:30 a.m. 4:30 p.m.	8:00 a.m. 6:15 p.m.	N/A	N/A
170	East Natomas	30	6:00 a.m.	7:00 p.m.	N/A	N/A
171	West Natomas	30	6:00 a.m.	6:30 p.m.	N/A	N/A
172	Central Natomas	30	6:00 a.m.	7:00 p.m.	N/A	N/A
174	Midwest Natomas	30	6:00 a.m.	7:00 p.m.	N/A	N/A

Source: Data provided by Fehr & Peers in 2019

In addition to SacRT, several other transit agencies, including Yolobus, Elk Grove Transit, Roseville Transit, El Dorado Transit, Yuba-Sutter Transit, Placer County Transit, Folsom Stage Lines, the San Joaquin Regional Transit District, and Amador Regional Transit System, offer commuter service into downtown Sacramento. These bus routes generally run only during the peak a.m. and p.m. commute periods serve employees commuting into downtown Sacramento from throughout the greater Sacramento region.

Figure 4.3-4 displays the locations of existing rail transit service and existing local and commuter bus routes within the study area.



Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-4 Existing Transit Service

BICYCLE SYSTEM

Figure 4.3-5 displays existing bicycle facilities in the study area. The following types of bicycle facilities serve the study area:

- ▶ Multi-use paths (Class I) are paved trails that are separated from roadways and allow for shared use by both cyclists and pedestrians.
- ▶ On-street bike lanes (Class II) are designated for use by bicycles by striping, pavement legends, and signs.
- ▶ On-street bike routes (Class III) are designated by signage for shared bicycle use with vehicles but do not necessarily include any additional pavement width.
- ▶ Separated bikeways (Class IV) are also known as protected bikeways or cycle tracks. Separated bikeways improve upon buffered bike lanes by providing vertical separation between bike lanes and the adjacent travel lanes. Vertical separation can be provided with concrete curb and gutter, bollards, or on-street parking.

The project site is served by a variety of bicycle facilities. Class II bike lanes exist near the project site along 9th Street and 10th Street in the north/south direction and along Capitol Mall, J Street, I Street, and H Street in the east/west direction. Class III bike routes provide an east/west connection along K Street between 8th Street and 12th Street and connect to Class I bike paths on K Street between 7th Street and 8th Street and between 12th Street and 13th Street. Within Capitol Park, a Class III route on 13th Street serves as the primary north/south bicycle facility within Capitol Park. Class IV parking-protected bikeways are present near the project site on 10th Street (north of L Street), P Street (east of 9th Street), and Q Street (east of 9th Street).

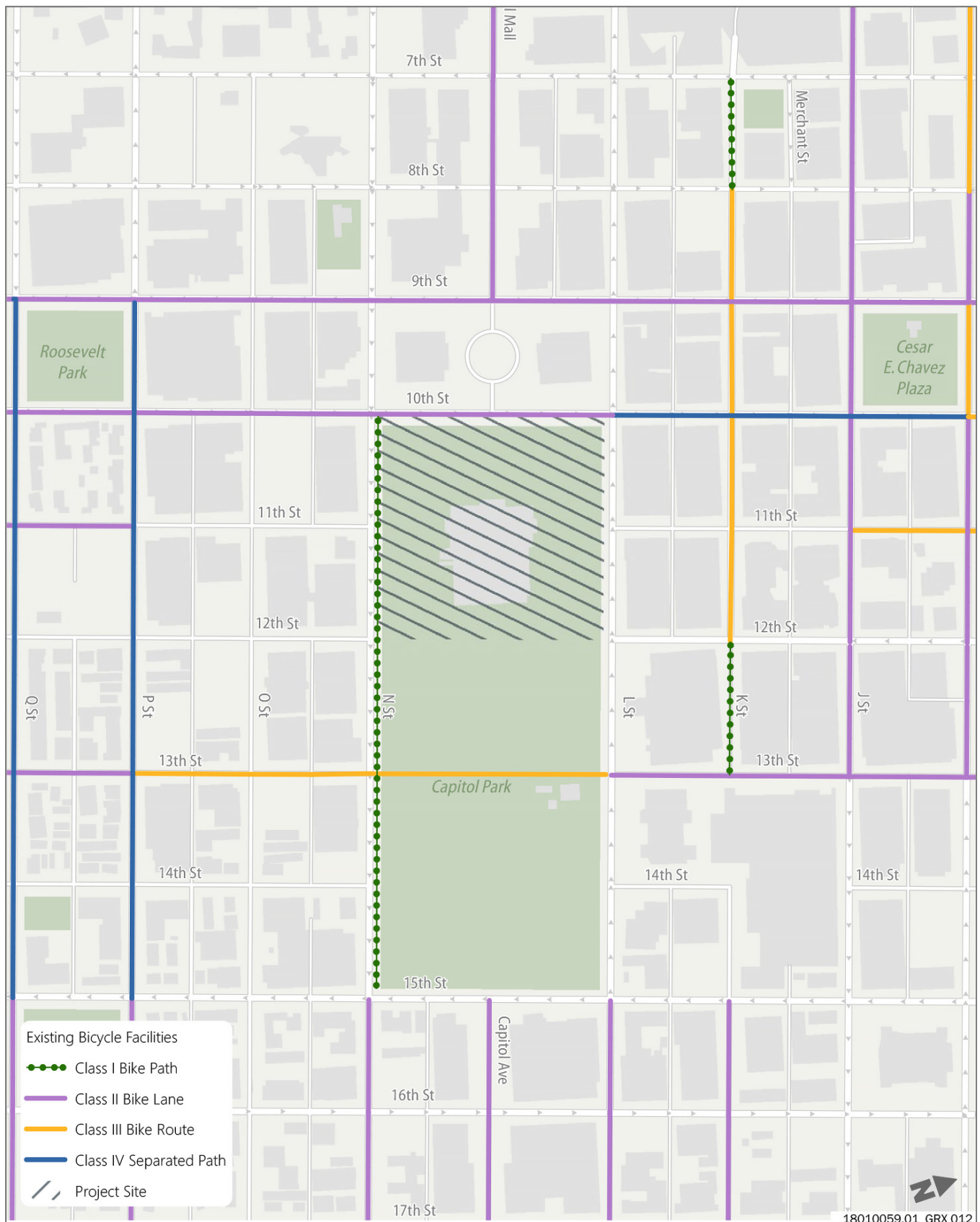
PEDESTRIAN SYSTEM

The high level of connectivity provided by the study area's gridded street system, concentration of land uses, and provision of consistent high-quality pedestrian facilities results in higher levels of pedestrian travel within the study area relative to other portions of the city. According to data from the 2010 Census, 15 percent of the residents within the Central City (which encompasses midtown and downtown) walk to work on a regular basis, which is approximately five times the rate of the city as a whole. Figure 4.3-6 displays the existing pedestrian facilities in the study area.

Nearly all streets in the study area feature sidewalks on both sides of the roadway, and sidewalk widths typically range between 6 and 15 feet. Sidewalks are present on all streets adjacent to the project site. Near the project site, sidewalks are generally separated from the roadway by on-street parking and landscaped planter strips. These streetscape features, including shade trees, increase pedestrian comfort.

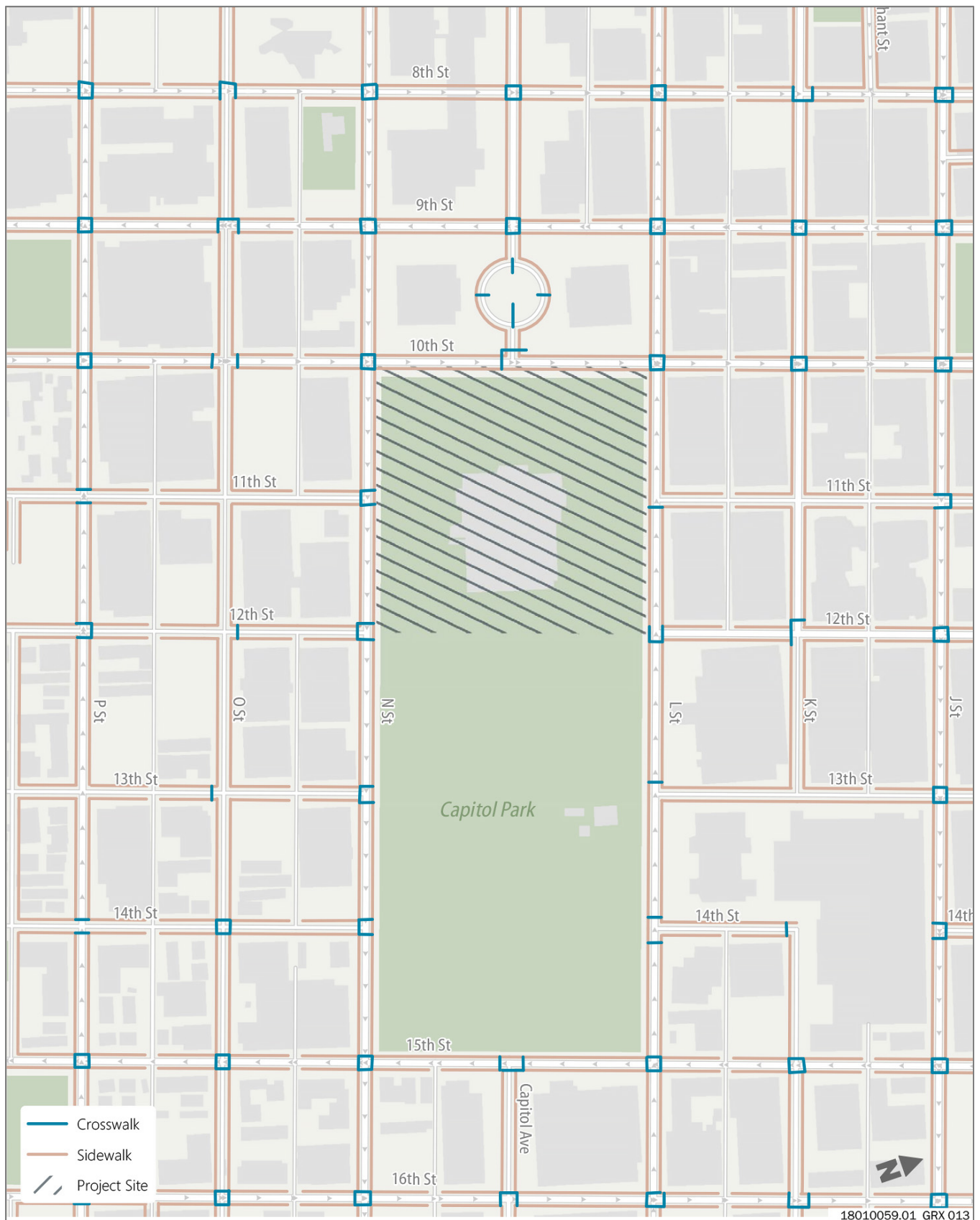
Traffic signals within the study area operate on relatively short cycle lengths, and all have automatic walk signals for pedestrians. Combined, these features result in low levels of crossing delay for pedestrians.

Within the vicinity of the project site, marked crosswalks are provided on all approaches at most intersections. The following study intersections have at least one leg without a marked crosswalk: L Street/11th Street (north and west legs), L Street/12th Street (west leg), L Street/13th Street (north and east legs), L Street/14th Street (north leg), Capitol Mall/10th Street (north leg), and N Street/14th Street (south leg).



Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-5 Existing Bicycle Facilities



Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-6 Existing Pedestrian Facilities

4.3.3 Environmental Impacts and Mitigation Measures

This section describes the analysis techniques, assumptions, and results used to identify potential significant impacts of the project on the transportation system, and assesses the project’s transportation and circulation impacts.

METHODOLOGY

The transportation and circulation analysis methodology uses the anticipated travel characteristics of the project (see Chapter 3, “Project Description,” of this EIR) and trip generation as described below.

Trip Generation

As noted in Chapter 3, the project would not include any changes to the number of employees. The number of parking spaces is assumed, for purposes of this EIR, to increase from 150 to a maximum of 200 spaces, which would allow more employees to park on site. The peak-hour trips generated by the current parking spaces were measured using the peak-hour traffic counts conducted at the two study intersections that currently provide access to the existing on-site parking (L Street/12th Street and N Street/12th Street). This rate was applied to the proposed new spaces to estimate the increase in peak-hour trips to the site associated with the additional parking spaces. Table 4.3-5 provides a summary of the existing and estimated on-site trips.

Table 4.3-5 Capitol Annex Project Parking Generation

	A.M. Peak Hour Total	A.M. Peak Hour In	A.M. Peak Hour Out	P.M. Peak Hour Total	P.M. Peak Hour In	P.M. Peak Hour Out
Existing Trips	64	47	17	45	12	33
Existing Plus-Project Trips	86	63	23	60	16	44

Source: Data provided by Fehr & Peers in 2019

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate the project impacts on transportation and traffic under CEQA are based on Appendix G of the State CEQA Guidelines and thresholds of significance adopted by the City of Sacramento in applicable plans and environmental documents, including the City of Sacramento 2035 General Plan Update Master EIR (City of Sacramento 2014) and the Central City Specific Plan EIR (City of Sacramento 2018). The following significance criteria were used to identify project-specific impacts on the transportation and circulation system.

Intersections

Impacts on the roadway system would be significant if:

- ▶ traffic generated by the project degrades the overall roadway system operation to the extent that the project would not be consistent with General Plan Policy M 1.2.2 relating to the City’s allowable LOS, or
- ▶ traffic generated by the project substantially degrades operation of intersections and roadway segments, despite compliance with General Plan policies.

General Plan Mobility Element Policy M 1.2.2 sets forth definitions for what is considered an acceptable LOS. All study intersections are in the Core Area and are governed by Policy M 1.2.2 (A), under which LOS F is acceptable during peak hours, provided the project contributes other acceptable improvements to systemwide roadway capacity, intersections, or nonauto travel modes in furtherance of General Plan goals. Road widening or other improvements to road segments are not required.

Vehicle Miles Traveled

Impacts related to VMT would be significant if:

- ▶ an office/employment center use is not within a transit priority area, and VMT per employee exceeds 85 percent of the existing average VMT per employee for Sacramento County.

Transit

Impacts on the transit system would be significant if implementation of the Capitol Annex Project would:

- ▶ substantially adversely affect public transit operations or
- ▶ fail to adequately provide access to transit.

Bicycle Facilities

Impacts on bicycle facilities would be significant if implementation of the Capitol Annex Project would:

- ▶ substantially adversely affect existing or planned bicycle facilities or
- ▶ fail to adequately provide for access by bicycle.

Pedestrian Circulation

Impacts on pedestrian circulation would be significant if implementation of the Capitol Annex Project would:

- ▶ substantially adversely affect existing or planned pedestrian facilities or
- ▶ fail to adequately provide for access by pedestrians.

Construction-Related Traffic Impacts

Construction-related traffic impacts would be significant if implementation of the Capitol Annex Project would:

- ▶ degrade an intersection or roadway to an unacceptable LOS;
- ▶ cause substantial inconvenience to motorists because of prolonged road closures; or
- ▶ result in substantially increased potential for conflicts between vehicles, pedestrians, and bicyclists.

The first significance criterion bullet listed above under "Intersections" is the City's interpretation of how General Plan Policy M 1.2.2 should be applied in the Core Area and Priority Investment Areas of the city. This policy allows these areas to have intersections that operate at LOS F. However, such conditions should not be detrimental toward other General Plan circulation policies (including but not limited to Policies M 1.2.1, 1.2.4, 1.3.3, and 1.3.5) that pertain to providing high-quality transit, walkable neighborhoods and business districts, continuous and connected bikeways, transportation demand management, emergency response, and other circulation considerations. So, although a single intersection operating at LOS F during the peak hour may be considered acceptable, an entire roadway system that experiences severe gridlock and hampers all modes of travel is generally not considered acceptable. To this end, the evaluation of this significance criterion focuses on the totality of system operations to assess consistency with General Plan Policy M 1.2.2.

In developing Policy M 1.2.2, the City evaluated the benefits of allowing lower levels of service to promote infill development within an urbanized, high-density area of the city that reduces VMT and supports more transportation alternatives, including biking, walking, and transit, as compared to requiring a higher LOS that would accommodate more cars but may also require widening roads and would result in increased VMT and GHG emissions. Based on this evaluation, the City determined that LOS F is acceptable during peak hours within the Core Area, as long as the project provides acceptable improvements to other parts of the citywide transportation system, as described above.

The City's LOS policy was adopted to allow decreased levels of service (i.e., LOS F) in an urbanized Core Area of the city that supports more transportation alternatives and places residents proximate to employment, entertainment, retail, and neighborhood centers and thus reduces overall VMT and results in environmental benefits (e.g., improved air quality and reduced GHG emissions).

ISSUES NOT DISCUSSED FURTHER

Vehicle Miles Traveled

Per SB 743 and, more specifically, PRC Section 21155.4, the project is exempt from VMT analysis for the following reasons:

1. The Capitol Annex Project is located within a transit priority area, as defined in Subdivision (a) of PRC Section 21099 because it is located within one-half mile of an existing major transit stop.
2. The project is undertaken to implement and is consistent with the intent of the Central City Specific Plan and the Central City Specific Plan EIR, which was certified on April 19, 2018.
3. The project is consistent with the general use designation, density, building intensity, and applicable policies specific for the project area identified in the 2016 SACOG MTP/SCS, which identifies the project area as a higher density major employment center.

Additionally, the project does not require further project-specific analysis of VMT for the purposes of CEQA compliance per the Central City Specific Plan. With implementation of the Central City Specific Plan, the study area average VMT per employee is 77 percent of the existing countywide average, which is below the 85-percent threshold used to identify significant impacts (City of Sacramento 2018). Since the average VMT per employee does not exceed 85 percent of the existing countywide average calculated by SACOG, the impact would not be cumulatively considerable. Implementation of the Central City Specific Plan, including all consistent land use development and transportation improvements, would have no significant impact on per employee VMT in the Central City Specific Plan area and would not require further project-specific analysis of VMT for the purposes of CEQA compliance. Therefore, project-related VMT is not discussed further in this section.

EXISTING ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Existing-Plus-Project Conditions

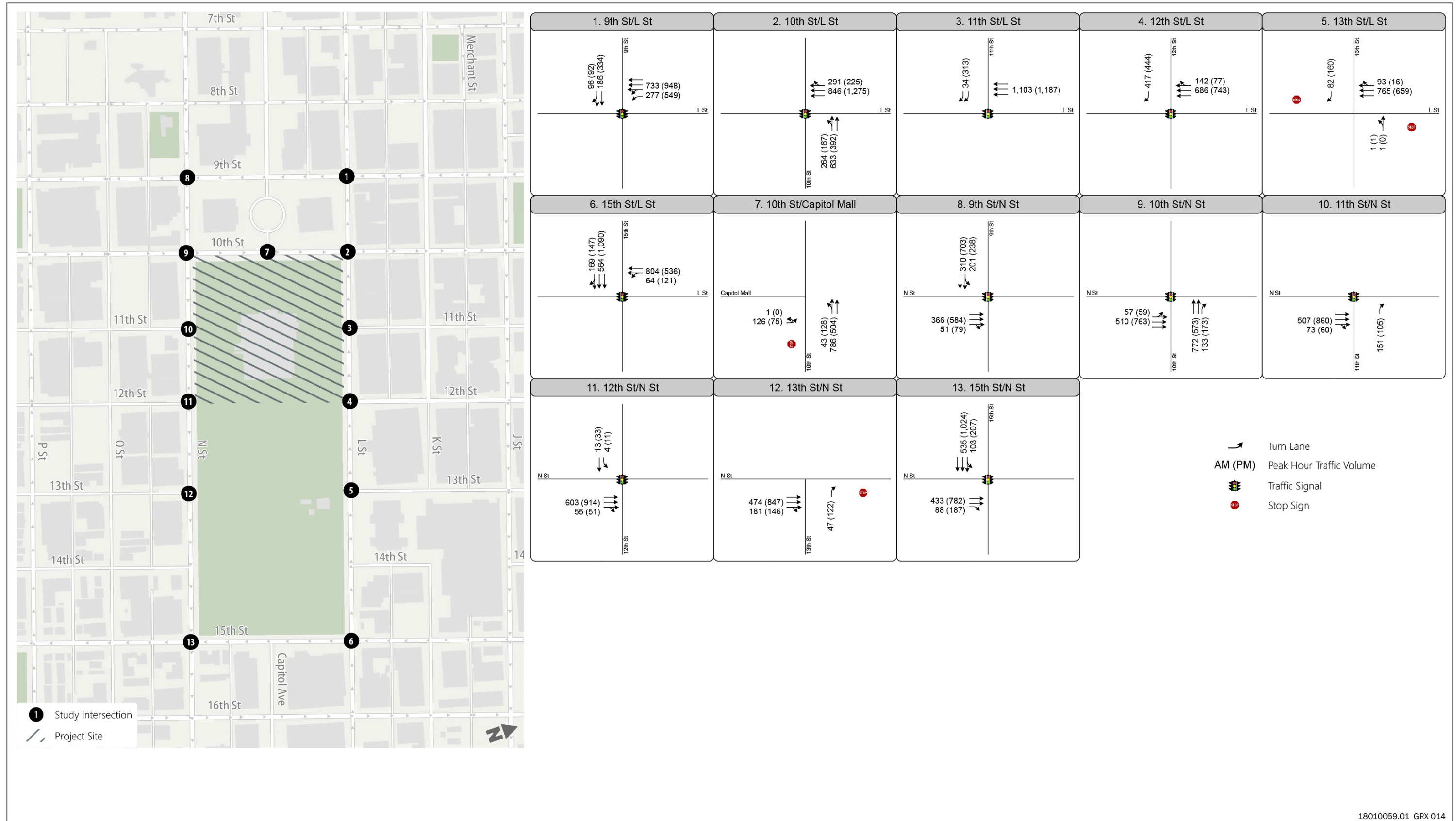
This section describes and assesses the effects of the project on existing conditions (i.e., the Existing-Plus-Project Conditions). Effects on transportation and circulation from operation of the completed project are addressed first. Effects during project construction, including potential sidewalk and travel lane closures and impacts to street operations, are addressed in the discussion of Impact 4.4-5, "Construction-Related Impacts."

Impact 4.3-1: Impacts on Intersection Operations

Implementing the project would add an estimated 22 a.m. peak-hour vehicle trips and 15 p.m. peak-hour vehicle trips to the site related to the potential increase in parking spaces. It would shift trips that currently access the site from L Street to N Street. Based on the traffic analysis, all study intersections would continue to operate at acceptable levels of service. Because the project would not cause any intersection operations to degrade to unacceptable levels, this impact would be **less than significant**.

Existing-Plus-Project traffic volumes account for the additional vehicle trips associated with the potential increase of 50 on-site parking spaces (150 currently to 200 post-project parking spaces), as well as the reassignment of project trips from the existing L Street access to N Street. Figure 4.3-7 displays the resulting a.m. and p.m. peak-hour intersection traffic volumes under Existing-Plus-Project Conditions.

Table 4.3-6 shows the Existing-Plus-Project peak-hour intersection operations at the study intersections (refer to Appendix D for technical calculations). Intersections would operate at LOS C or better overall during both the a.m. and p.m. peak hour. The project would result in relatively minor changes in traffic operations within the study area, and all study intersections would continue to operate acceptably. This impact would be **less than significant**.



Source: Figure provided by Fehr & Peers in 2019

Figure 4.3-7 Existing Plus-Project Peak-Hour Turning Movement Volumes and Lane Configurations

Table 4.3-6 Intersection Operations – Existing-Plus-Project Conditions

Intersection	Traffic Control	Peak Hour	Existing Conditions Delay ¹	Existing Conditions LOS	Existing-Plus-Project Conditions Delay ¹	Existing-Plus-Project Conditions LOS
1. 9th Street/L Street	Signal	a.m. p.m.	8 8	7 21	A C	A C
2. 10th Street/L Street	Signal	a.m. p.m.	9 6	17 13	B B	B B
3. 11th Street/L Street	Signal	a.m. p.m.	18 13	11 11	B B	A A
4. 12th Street/L Street	Signal	a.m. p.m.	6 21	11 10	B A	A A
5. 13th Street/L Street	SSSV	a.m. p.m.	7 24	5 (14) 5 (14)	A (B) A (B)	A (B) A (C)
6. 15th Street/L Street	Signal	a.m. p.m.	23 22	18 11	B B	B B
7. 10th Street/Capitol Mall	SSSC	a.m. p.m.	7 10	3 (11) 3 (10)	A (B) A (A)	A (B) A (A)
8. 9th Street/N Street	Signal	a.m. p.m.	5 (24) 1 (5)	9 13	A B	A B
9. 10th Street/N Street	Signal	a.m. p.m.	9 12	7 6	A A	A A
10. 11th Street/N Street	Signal	a.m. p.m.	8 10	6 6	A A	A A
11. 12th Street/N Street	Signal	a.m. p.m.	7 6	4 4	A A	A A
12. 13th Street/N Street	SSSC	a.m. p.m.	8 19	1 (4) 2 (8)	A (A) A (A)	A (A) A (A)
13. 15th Street/N Street	Signal	a.m. p.m.	10 16	B B	10 15	B B

Notes: LOS = level of service; SSSC = side-street stop-controlled.

¹For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts on intersections are determined based on the overall LOS and average delay. Intersection LOS and delay are calculated based on the procedures and methodology contained in the Highway Capacity Manual, sixth edition (TRB 2016). All intersections were analyzed in SimTraffic.

Source: Data provided by Fehr & Peers in 2019

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-2: Impacts on Transit

The project is not expected to generate new demand for transit services and would not adversely affect public transit operations. Therefore, this impact would be **less than significant**.

Multiple transit options exist within the study area, including the Blue, Gold, and Green Line light-rail lines, which all serve a station located within one block of the project site. Multiple SacRT bus lines also serve the study area, as well as a multitude of commuter bus routes that have stops within one-quarter mile of the project site. Implementing the project would not result in additional demand for transit service, would not reduce access to existing transit, and would not adversely affect existing public transit operations. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-3: Impacts on Bicycle Facilities

The project, once complete, is not expected to generate new bicycle trips and would not adversely affect existing or planned bicycle facilities. Therefore, this impact would be **less than significant**.

The project site is served by an extensive network of bicycle facilities, including Class II bicycle lanes on 9th Street and 10th Street and a Class III route on 13th Street that serves as the primary north/south bikeway through Capitol Park. Implementing the project would not adversely affect any existing bicycle facilities or preclude the construction of any planned facilities. It also is not expected to result in additional bicycle travel. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-4: Impacts on Pedestrian Facilities

The project, once complete, is not expected to generate new pedestrian trips and would not adversely affect existing or planned pedestrian facilities. Therefore, this impact would be **less than significant**.

All streets surrounding the project site have existing sidewalks on both sides, and multiple marked crosswalks connect the State Capitol grounds to the surrounding pedestrian network. Implementing the project would not adversely affect any existing pedestrian facilities or preclude the construction of any planned facilities, and it is not expected to result in additional pedestrian travel. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-5: Construction-Related Impacts

Construction-related traffic impacts would be localized and temporary. Project construction activity would necessitate restriction or redirection of pedestrian, bicycle, and vehicular movements and removal of curbside parking around the site to accommodate construction staging, material hauling, material staging, modifications to utility connections, and movement of State personnel between the Historic Capitol and the 10th and O Street Office Building. DGS and the JRC or their contractor would prepare and implement a construction traffic management plan to reduce the temporary impacts to the degree feasible. Therefore, construction-related impacts on traffic would be **less than significant**.

Project construction is anticipated to begin in 2020 and be complete, with tenant occupancy, in 2025. The project would generate truck and worker trips during all portions of the construction process including during hazardous materials abatement in the current Annex, utility upgrades, demolition, excavation, and construction. The construction labor force would fluctuate depending on the phase of work but is expected to range between 250 and 300 workers during peak construction periods. Because the magnitude of these trips during peak hours would be less than what the existing Annex generates (which would be closed during construction), absolute impacts (in terms of delay and queuing) would be less than significant.

Project construction activity would necessitate restriction or redirection of pedestrian, bicycle, and vehicular movements and removal of curbside parking around the site to accommodate construction staging, material hauling, material staging, modifications to utility connections, and movement of State personnel between the Historic Capitol and the 10th and O Street Office Building. As described in Section 3.4.14 of the Project Description, for construction of the visitor/welcome center (estimated construction period of third quarter of 2020 to the fourth quarter of 2021),

fencing would be limited to the west side of the Historic Capitol. The construction exclusion area would include the sidewalk along 10th Street between L Street and N Street and a portion of the east side of the 10th Street travel corridor in this area. It is expected that parking on both sides of 10th Street between L Street and N Street would be removed during construction and the State would re-stripe 10th Street to provide two vehicle travel lanes and maintain the dedicated bicycle lane. The exclusion fencing would be removed, and 10th Street returned to pre-project conditions, at completion of the visitor/welcome center and before establishing the temporary construction exclusion area for the Annex and underground parking.

Before demolition of the Annex begins in 2022, temporary fencing would be installed around the eastern and southern portions of the project area. The construction exclusion area would include the sidewalk along N Street between 10th Street and 12th Street and the parking lane along the north side of N Street. The sidewalk along L Street between 11th Street and 12th Street would also be closed; however, the temporary construction exclusion area would not encroach onto L Street. The eastern edge of the construction exclusion area would not extend beyond the line of where the eastern edge of 12th Street would cross Capitol Park. During this phase of construction (i.e., Annex demolition, new Annex construction, underground parking construction, from approximately the first quarter of 2022 to the third quarter of 2025) access to the entrance of the visitor/welcome center at 10th Street would be maintained, as would a pedestrian pathway from the entry at the north side of the Historic Capitol to L Street. A pedestrian pathway from the south side of the Historic Capitol to N Street would also be maintained for members of the Legislature, Executive, and their staff to move between the Historic Capitol and the 10th and O Street Office Building. To facilitate the same movement of members of the Legislature, Executive, and their staff across N Street, during this phase of construction, N Street would be closed to vehicle traffic during the day. The closures would begin no earlier than after the end of the morning peak hour traffic period on N Street and end no later than the beginning of the evening peak hour traffic period.

It is estimated that there could be up to approximately 15,000 total haul trips for all phases of construction. This includes trips for delivery of material, removal of excavated fill, and removal of material generated by demolition of the existing Annex. Trucks would enter and exit the fenced construction area at designated gated points.

In accordance with Section 12.20.20 of the Sacramento City Code, DGS and the JRC or their selected contractor would prepare a construction traffic management plan, which is subject to approval by the City of Sacramento Traffic Engineer and subject to review by all affected agencies, including California Highway Patrol and City of Sacramento Fire and Police Departments. The plan would be designed to ensure acceptable operating conditions on local roadways, pedestrian and bicycle facilities, and transit studied as a part of this EIR and affected by construction traffic. At a minimum, the plan shall include a:

- ▶ description of the proposed work area and phases of traffic control;
- ▶ description of trucks, including number and size of trucks per day, expected arrival and departure times, and truck circulation patterns;
- ▶ description of right-of-way (vehicular, bicycle, and pedestrian facility) closures, including duration, advance warning and posted signage, detour routes, safe and efficient access routes for emergency vehicles, and use of manual traffic control; and
- ▶ description of a driveway access plan, including provisions for safe vehicular, pedestrian, and bicycle travel; minimum distance from any open trench; special signage; and private vehicle accesses.

A copy of the construction traffic management plan shall be submitted to local emergency response agencies and transit providers, and these agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct roadways. The project site is located within the downtown street grid; therefore, various alternative vehicle, pedestrian, and bicycle routes are available to access the project area and nearby locations in response to temporary access disruptions during construction. There are no transit stops that would be affected by

anticipated travel lane and sidewalk closures. There is one bus stop on L Street near the project site; however, the stop is on the north side of L Street, on the opposite side of L Street from where a sidewalk closure may occur.

Because construction-related traffic impacts would be localized and temporary, and DGS and the JRC or their contractor would prepare and implement a construction traffic management plan that meets the approval of the City Traffic Engineer, in accordance with City Code, the project's construction traffic impacts would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.4 UTILITIES AND SERVICE SYSTEMS

This section evaluates the availability of existing utility and infrastructure systems (water, wastewater, stormwater, electricity, natural gas, and solid waste) to serve the Capitol Annex Project and the impact of the project on these systems. The analysis is based on documents obtained from the City of Sacramento (City) and the Sacramento Regional County Sanitation District (Regional San) and on personal communications with DGS, the Joint Rules Committee (JRC), and JRC representatives.

For an evaluation of the project's potential impacts related to the inefficient, wasteful, and unnecessary consumption of energy (as required by Appendix F of the State CEQA Guidelines), refer to Section 4.7, "Energy."

4.4.1 Regulatory Setting

DOMESTIC WATER

Federal

Safe Drinking Water Act

As mandated by the Safe Drinking Water Act (SDWA) (Public Law 93-523), passed in 1974, the U.S. Environmental Protection Agency (EPA) regulates contaminants of concern to domestic water supply. Such contaminants are defined as those that pose a public health threat or that alter the aesthetic acceptability of the water. These types of contaminants are regulated by EPA primary and secondary maximum contaminant levels (MCLs). MCLs and the process for setting these standards are reviewed every 3 years. Amendments to the SDWA, enacted in 1986, established an accelerated schedule for setting drinking water MCLs. EPA has delegated responsibility for California's drinking water program to the State Water Resources Control Board Division of Drinking Water (SWRCB-DDW). SWRCB-DDW is accountable to EPA for program implementation and for adoption of standards and regulations that are at least as stringent as those developed by EPA.

State

Urban Water Management Plan

In 1983, the California Legislature enacted the Urban Water Management Planning Act (UWMPA) (California Water Code Sections 10610–10656). The UWMPA states that every urban water supplier that provides water to 3,000 or more customers, or that provides more than 3,000 acre-feet (af) of water annually, must make every effort to ensure that its water supply is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. This effort includes the adoption of an urban water management plan (UWMP) by every urban-water supplier and an update of the plan every 5 years on or before December 31, of every year ending in a 5 or 0. The UWMPA has been amended several times since 1983 with the most recent amendment occurring with SB 318 in 2004.

The City of Sacramento 2015 UWMP, adopted in June 2016, is based on the Sacramento 2035 General Plan.

California Safe Drinking Water Act

The SWRCB-DDW is responsible for implementing the federal SDWA and its updates, as well as California statutes and regulations related to drinking water. State primary and secondary drinking water standards are promulgated in 22 CCR Sections 64431–64501.

The California Safe Drinking Water Act was passed in 1976 to build on and strengthen the federal SDWA. The California act authorizes the SWRCB to protect the public from contaminants in drinking water by establishing MCLs that are at least as stringent as those developed by EPA, as required by the federal SDWA.

Local

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the JRC under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

Water Service System and Fees

Chapter 13.04 of the City Code regulates construction of water distribution facilities; describes requirements for installation and phasing of water meters; establishes the review process for ensuring adequate fire flow and hydrants; and states that rates, fees, and charges for sewer service and storm drain service are established and will be updated from time to time by ordinance or resolution of the City Council.

City of Sacramento 2035 General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities Element relate to water supply and infrastructure:

GOAL U 2.1: High-Quality and Reliable Water Service. Provide water supply facilities to meet future growth within the City's Place of Use and assure a high-quality and reliable supply of water to existing future residents.

- ▶ **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.
- ▶ **Policy U 2.1.12: Water Conservation Enforcement.** The city shall continue to enforce City ordinances that prohibit the waste or runoff of water, establish limits on outdoor water use, and specify applicable penalties.
- ▶ **Policy U 2.1.15: Landscaping.** The City shall continue to require the use of water-efficient and river-friendly landscaping in all new development, and shall use water conservation gardens (e.g., Glen Ellen Water Conservation Office) to demonstrate and promote water conserving landscapes.
- ▶ **Policy U 2.1.16: River-Friendly Landscaping.** The City shall promote "River Friendly Landscaping" techniques which include the use of native and climate appropriate plants; sustainable design and maintenance; underground (water-efficient) irrigation; and yard waste reduction practices.

City of Sacramento 2015 Urban Water Management Plan

The City of Sacramento 2015 UWMP, adopted in June 2016, is based on the Sacramento 2035 General Plan. The 2015 UWMP describes the City water system, historical and projected water use, water supply sources, and a comparison of projected water supply to water demands during normal, single-dry, and multiple-dry years in five-year increments from 2020 to 2040. The 2015 UWMP confirms the City's 2015 and 2020 water use targets, verifies the City's compliance with the interim 2015 water use target, and describes the City's implementation plan for meeting the City's final 2020 water use target.

WASTEWATER AND STORMWATER

Federal

Clean Water Act

The federal Clean Water Act (CWA) employs a variety of regulatory and nonregulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Those portions of the CWA that relate to wastewater and stormwater discharges are discussed in the following section.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established under the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges, including point-source waste discharges and nonpoint sources (nonpoint-source discharges are discussed further in Section 4.10, "Hydrology and Water Quality"). Each NPDES permit identifies limits on allowable concentrations and mass loadings of pollutants contained in the discharge. Sections 401 and 402 of the CWA identify general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

NPDES permits cover various industrial and municipal discharges, including discharges from storm sewer systems in larger cities, stormwater generated by industrial activity, runoff from construction sites disturbing more than 1 acre, and mining operations. Point-source dischargers must obtain a discharge permit from the proper authority (usually a state, sometimes EPA, a tribe, or a territory). So-called "indirect" point-source dischargers are not required to obtain NPDES permits. "Indirect" dischargers send their wastewater into a public sewer system, which carries it to the municipal sewage treatment plant, through which it passes before entering any surface water.

The CWA was amended in 1987 with Section 402(p), which requires NPDES permits for nonpoint-source (i.e., stormwater) pollutants in discharges. Stormwater sources are diffuse and originate over a wide area rather than from a definable point. The goal of the NPDES stormwater regulations is to improve the water quality of stormwater discharged to receiving waters to the "maximum extent practicable" using structural and nonstructural best management practices (BMPs). BMPs can include educational measures (e.g., workshops informing the public of what impacts can result when household chemicals are dumped into storm drains), regulatory measures (e.g., local authority of drainage facility design), public policy measures (e.g., adding labels to storm drain inlets regarding the impacts of dumping on receiving waters), and structural measures (e.g., filter strips, grass swales, and detention ponds).

State

NPDES Permit for the Sacramento Regional Water Treatment Plant

In April 2016, the Central Valley Regional Water Quality Control Board (RWQCB) issued Waste Discharge Requirement (WDR) Order No. R5-2016-0020 (NPDES No. CA 0077682) to Regional San for its Sacramento Regional Wastewater Treatment Plant, which treats wastewater from its service area before discharging it to the Sacramento River. This order is an NPDES self-monitoring permit that outlines performance standards for the effluent into the Sacramento River. The water quality objectives established in the Central Valley RWQCB Basin Plan are protected, in part, by NPDES Permit No. CA 0077682.

The quality of the effluent that can be discharged to waterways in the Sacramento area is established by the Central Valley RWQCB through WDRs that implement the NPDES permit. WDRs are updated at least every 5 years. A new permit must be issued if the facility undergoes a major change or expansion.

NPDES Permit for the Combined Sewer System

In April 2015, the Central Valley RWQCB issued WDR Order No. R5-2015-0045 (NPDES No. CA 0079111) to the City of Sacramento for its Combined Wastewater Collection and Treatment System (Central Valley RWQCB 2015). Depending on flow volumes, wastewater and stormwater flows in this system are conveyed to the Sacramento Regional Wastewater Treatment Plant, Combined Wastewater Treatment Plant (CWTP) at South Land Park Drive and 35th Avenue, or Pioneer Reservoir at Front and V Streets near the Sacramento River. The order does not apply to operations at the Sacramento Regional Wastewater Treatment Plant.

This order implements the EPA Combined Sewer Overflow (CSO) Control Policy, which establishes a consistent national approach for controlling discharges from CSOs to the nation's water through the NPDES permit program. This policy requires implementation of a long-term control plan (LTCP) to comply with water quality-based requirements of the CWA. The City of Sacramento adopted its LTCP, also known as the Combined Sewer System Improvement Plan (CSSIP), in 1995, which contained the infrastructure improvement portion of the LTCP.

WDR Order No. R5-2015-0045 identifies effluent limitations and discharge specifications for discharges from the CWTP and Pioneer Reservoir to the Sacramento River. Discharge from the system to surface waters or surface water drainage courses is prohibited during nonstorm events. However, if the capacity of the system is exceeded during a storm event, this order allows for the discharge of overflows into the Sacramento River. The City is required to implement pollution prevention programs to reduce contaminants in CSOs.

Local

City of Sacramento Combined System Development Fee

An ordinance amending Chapter 13.08 of the City of Sacramento Code relating to sewer and storm drain service systems and establishing combined sewer system (CSS) development fee amounts was approved by the City's Law and Legislation Committee on February 15, 2005, and was passed for publication on February 22, 2005. This ordinance requires developers requiring new connections to the CSS to pay a development fee to recover an appropriate share of the capital costs of the CSS facilities needed to accommodate new development in the CSS area.

Sacramento Regional County Sanitation District Consolidated Ordinance

The Regional San Consolidated Ordinance sets forth requirements for use of its wastewater collection and treatment system, provides for the enforcement of these requirements, establishes penalties for violations, and establishes the rates and fees for users of Regional San's sewer facilities.

Stormwater Quality Design Manual

See Section 4.10, "Hydrology and Water Quality," for a description of the Stormwater Quality Design Manual.

City of Sacramento 2035 General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities Element relate to stormwater and wastewater management:

GOAL U 1.1: High-Quality Infrastructure and Services. Provide and maintain efficient, high quality public infrastructure facilities and services in all areas of the city.

- ▶ **Policy U 1.1.5: 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.

GOAL U 3.1: Adequate and Reliable Sewer and Wastewater Facilities. Provide adequate and reliable sewer and wastewater facilities that collect, treat and safely dispose of wastewater.

- ▶ **Policy U 3.1.4:** In keeping with its CSS Long Term Control Plan (LTCP), the City will continue to rehabilitate the CSS to decrease flooding, CSS outflows and CSOs. Through these improvements and new development requirements the City will also ensure that development in the CSS does not result in increased flooding, CSS outflows or CSOs.

GOAL U 4.1: Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally sensitive, accommodate growth, and protect residents and property.

- ▶ **Policy U 4.1.5: Green Stormwater Infrastructure.** The City shall encourage "green infrastructure" design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).
- ▶ **Policy U 4.1.6: New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including "green infrastructure" and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.

ENERGY

For regulatory information related to energy, refer to Section 4.7, "Energy."

SOLID WASTE

Federal

No federal plans, policies, regulations, or laws are applicable to solid waste services for the project.

State

California Building Standards Code (Title 24)

Effective January 1, 2011, CALGreen became California's first green building standards 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 requirements for construction and demolition (C&D) material diversion. Under Section 5.408 of the CALGreen Code, projects involving C&D activities are required to recycle and/or salvage for reuse a minimum of 65 percent of their nonhazardous C&D material. Applicable projects, such as the Capitol Annex Project, are required to prepare and implement a construction waste management plan.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of their generated waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000. Solid waste plans are required to explain how each city's AB 939 plan will be integrated with the county plan. In order of priority, the plans must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 1999, Governor Davis signed AB 75 (Chapter 764, Statutes of 1999), which mandated that State agencies comply with AB 939 diversion requirements.

In addition to the requirements of AB 75, the following policies and statutes address State agency recycling:

- ▶ Executive Order W-7-91 requires California State agencies to buy recycled products and set up recycling programs.
- ▶ Public Contract Code (PCC) Sections 12164.5–12167.1 require the CalRecycle to develop a recycling plan and implement recycling programs for the Legislature and all State-owned and leased buildings.
- ▶ PCC 12167.1 requires State agencies and institutions to report materials collected for recycling to the CalRecycle.
- ▶ PRC 42560–42562 requires the CalRecycle to recycle high-grade white office paper in California State offices.
- ▶ California State Administration Manual Chapter 1990 encourages employees at State facilities to prevent waste, reuse, and recycle.

Local

City of Sacramento 2035 General Plan

The goals and policies listed below from the Utilities Element are relevant to effects on solid waste.

GOAL U 5.1: Solid Waste Facilities. Provide adequate solid waste facilities, meet or exceed State law requirements, and utilize innovative strategies for economic and efficient collection, transfer, recycling, storage, and disposal of refuse.

- ▶ **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. In the interim, the City shall achieve a waste reduction goal of 75 percent diversion from the waste stream over 2005 levels by 2020 and 90 percent diversion over 2005 levels by 2030, and shall support the Solid Waste Authority in increasing commercial solid waste diversion rates to 30 percent.
- ▶ **Policy U 5.1.8: Diversion of Waste.** The City shall encourage recycling, composting, and waste separation to reduce the volume and toxicity of solid wastes sent to landfill facilities.

- ▶ **Policy U 5.1.9: Electronic Waste Recycling.** The City shall continue to coordinate with businesses that recycle electronic waste (e.g., batteries, fluorescent lamps, compact-fluorescent (CFL) bulbs) and the California Product Stewardship Council to provide convenient collection/drop off locations for city residents.
- ▶ **Policy U 5.1.14: Recycled Materials in New Construction.** The City shall encourage the use of recycled materials in new construction.
- ▶ **Policy U 5.1.15: 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.

4.4.2 Environmental Setting

Public utilities in the project area are provided by various entities, as identified in Table 4.4-1 and discussed in detail below.

Table 4.4-1 Utilities Providers for the Project Area

Utility	Agency/Provider
Water supply	City of Sacramento
Wastewater collection and conveyance	City of Sacramento
Wastewater treatment	Sacramento Regional County Sanitation District
Stormwater conveyance	City of Sacramento
Solid waste collection	City of Sacramento (residential), various private franchised haulers (commercial)
Electrical service	Sacramento Municipal Utility District
Natural gas	Pacific Gas and Electric Company

Source: Data compiled by Ascent Environmental in 2019

WATER SUPPLY

The City of Sacramento Department of Utilities is responsible for water services within the city limits, including the Capitol Annex Project site, with the exception of some city residents who receive their water from Sacramento Suburban Water District. The City provides drinking water from groundwater and surface water resources. Surface water is diverted at two locations: from the American River downstream of the Howe Avenue Bridge and from the Sacramento River downstream of the confluence of the American and Sacramento Rivers. The City draws groundwater from two subbasins of the Sacramento Valley Groundwater Basin: the North American Subbasin, located north of the American River, and South American Subbasin, located south of the American River. Surface water and groundwater resources are described in detail in Section 4.10, "Hydrology and Water Quality."

The City's retail service area covers approximately 99 square miles (63,182 acres) with 135,830 connections and a population of 480,105 as of 2015 (City of Sacramento 2016a:3-1 and 3-2). The City also provides wholesale water supplies to the Sacramento County Water Agency, Sacramento Suburban Water District, California American Water, and Fruitridge Vista Water Company.

Surface Water Supply

The City of Sacramento has relied on river water for its primary source of supply since 1854 and claims pre-1914 rights to divert approximately 75 cubic feet per second (cfs) from the Sacramento River (City of Sacramento 2016a:6-6). In addition, the City holds five water rights permits to serve the city: one for diversion of Sacramento River water and four for diversion of American River water. Diverted water is treated at the Fairbairn Water Treatment Plant (FWTP) or the Sacramento River Water Treatment Plant (SRWTP).

Table 4.4-2 shows the City's schedule of authorized surface water supply over the next approximately 20 years.

Table 4.4-2 Maximum Contracted Annual Surface Water Diversion (afy) for the City of Sacramento¹

Water Source	2020	2025	2030	2035	2040
Maximum diversion from the Sacramento River ²	81,800	81,800	81,800	81,800	81,800
Maximum diversion from the American River ³	208,500	228,000	245,000	245,000	245,000
Total	290,300	309,800	326,800	326,800	326,800

Note: afy = acre-feet per year.

¹ Data obtained from Schedule A of the 1957 Water Rights Settlement Contract between the U.S. Bureau of Reclamation and the City of Sacramento.

² The City may divert up to 81,800 afy from the Sacramento River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the maximum combined diversion.

³ The City may divert up to the maximum diversion from the American River as long as the total combined diversion from both the Sacramento and American Rivers does not exceed the maximum combined diversion.

Source: City of Sacramento 2016a:6-8

Minimum-Flow Requirements

Current use and future development must be sensitive to American River streamflows, especially during dry periods. Two major institutional constraints limit the FWTP diversion capacity: Hodge Flow conditions and extremely dry year conditions, described below. When American River flows are above a certain level (dubbed “Hodge Flow conditions” and named for the presiding judge in the deciding case), the City may divert up to 310 cfs (200 million gallons per day [mgd]) from the American River. During extremely dry years (“Conference Years”), defined by specific inflow levels to Folsom Reservoir, the City limits its diversions to the FWTP to 155 cfs (100 mgd) and 50,000 acre-feet per year (afy) (16,300 million gallons per year). Conference Years have occurred on the American River only three times over the recorded hydrologic history: in 1924, 1977, and 2015.

Although Hodge Flow conditions and Conference Years may reduce the amount of water that can be diverted from the FWTP on the American River, the City can instead divert its remaining American River entitlements downstream at the SRWTP (City of Sacramento 2016a:7-10 through 7-12).

Groundwater Supply

The City currently operates 22 groundwater supply wells, with the majority of these wells located within the City’s service area north of the American River (City of Sacramento 2016a:3-4). The current total pumping capacity of the City’s municipal supply wells is approximately 20.6 mgd (23,077 afy). The City is conducting a well rehabilitation program that includes projects for improving capacity at several existing wells as well as developing new wells. The groundwater pumping capacity is anticipated to increase to approximately 25 mgd (28,006 afy) after the rehabilitation project and new wells are completed.

Water Treatment Plants

The SRWTP, located just east of Interstate 5 and south of Richards Boulevard, treats water pumped from the Sacramento River about one-half mile downstream from the American River confluence (City of Sacramento 2016a:3-4). The diversion capacity at the SRWTP is 160 mgd, and the City’s distribution system is able to convey up to 160 mgd of water from the SRWTP. In the 2015–2016 fiscal year, the SRWTP treated a total of 14,502 million gallons for an average of approximately 40 mgd.

The FWTP is located on the south bank of the lower American River, approximately 7 miles upstream from its confluence with the Sacramento River. The reliable treatment and permitted capacity of the FWTP is 160 mgd (City of Sacramento 2016a:7-1 through 7-2). However, the pipelines conveying water from the FWTP to the rest of the system are not able to convey the full 160 mgd, and the conveyance of treated water from the FWTP is limited to approximately 110 mgd. This physical constraint does not affect existing customers. The City is completing a rehabilitation at the FWTP to increase the reliable treatment capacity to match the permitted capacity of 160 mgd. During extremely dry years, the City agrees to limit diversions for water treated at the FWTP to approximately 100 mgd (City of Sacramento 2016a:6-9). During periods when the flow passing the FWTP is less than Hodge Flow conditions, diversions to the FWTP are limited to between about 64 mgd and 100 mgd depending on the time of year. In 2011–2012, an average of 42 mgd of water was treated at FWTP (City of Sacramento 2014:4-21).

Currently, average treatment volumes at each of these treatment plants are below capacity. As of 2015–2016, using a conservative assumption for low flows during Hodge Flow conditions or extremely dry years for treatment at the FWTP during which treatment capacity is limited to between 64 mgd and 100 mgd, FWTP had 39 mgd to 75 mgd of capacity available to treat additional water demand. As of 2015–2016, the SRWTP had 120 mgd of capacity available to treat additional water demand.

Current and Planned City Water Supply Sources

In 2015, as reported in the City of Sacramento 2015 UWMP, annual water supply and demand was 84,832 af (27,643 mg) (see Table 4.4-3). Projections of future population in the City’s service area and sphere of influence are based on the 2035 General Plan.

Planned water supplies shown in Table 4.4-3 are based on reasonably available volume, which in some cases is less than the total right or safe yields, which are discussed above. The total right (or safe yield) for the Sacramento River is equal to the reasonably available volume (81,800 afy); for the American River, it is 208,500 af in 2020 and increases to 245,000 af in 2030–2040; and for groundwater it is 25,205 af.

The planned supplies and demand shown in Table 4.4-3 are representative of anticipated supplies and demand in a normal year, single dry year, and multiple dry years. The supplies also reflect limitations that may occur under Hodge Flow conditions and Conference Years (City of Sacramento 2016a:7-9 through 7-11). Maintaining the same amount of supply during a normal year, single dry year, and multiple dry years is possible because groundwater levels are not reduced during a drought such that the well capacity is affected and because Hodge Flow conditions and Conference Years may reduce the amount of water that can be diverted from the FWTP on the American River, but the City can instead divert its remaining American River entitlements downstream at the SRWTP (City of Sacramento 2016a:7-9 through 7-11).

As shown in Table 4.4-3, the City has ample water supplies to meet demand from 2020 through 2040. The surplus water supply, after meeting anticipated demands, represents between 55 percent of the total supply in 2020 and decreases to 45 percent of total supply in 2040.

Table 4.4-3 City of Sacramento Current and Planned Annual Water Demand and Sources of Supply¹

	2015 (af [mg])	2020 (af [mg])	2025(af [mg])	2030 (af [mg])	2035 (af [mg])	2040 (af [mg])
Surface water supply	70,467 (22,962)	253,168 (82,495)	267,119 (87,041)	273,507 (89,123)	273,507 (89,123)	273,507 (89,123)
Groundwater supply ²	13,706 (4,466)	21,749 (7,087)	20,169 (6,572)	19,912 (6,488)	19,912 (6,488)	19,912 (6,488)
Recycled water supply ³	0	1,000 (326)	1,000 (326)	1,000 (326)	1,000 (326)	1,000 (326)
Mutual aid	659 (215)	0	0	0	0	0
Total water supply	84,832 (27,643)	275,917 (89,908)	288,288 (93,939)	294,419 (95,937)	294,419 (95,937)	294,419 (95,937)
Water demand⁴	84,832 (27,643)	123,229 (40,154)	130,548 (42,539)	139,882 (45,581)	149,213 (48,621)	162,029 (52,797)
Surplus (+)/Deficit (-)	0	152,688 (49,754)	157,740 (51,400)	154,537 (50,356)	145,206 (47,316)	132,390 (43,139)

Notes: af = acre-feet; mg = million gallons; 1 acre-foot = 325,851 gallons.

¹ Supplies and demand remain the same during normal, single dry, and multiple dry years because the City of Sacramento has sufficient water supply entitlements.

² Groundwater supplies are based on the City’s firm capacity, which is 90 percent of the total well capacities.

³ Recycled water is defined in the 2015 Urban Water Management Plan as municipal wastewater that has been treated and discharged from a wastewater facility for beneficial reuse. Recycled water supplies shown here represent projected supplies, but the City does not currently use recycled water.

⁴ Includes residential, commercial and industrial, institutional/governmental, landscaping, and system losses.

Source: City of Sacramento 2016a:4-3, 6-5, 6-10, 6-18, 7-10 through 7-12

WASTEWATER AND STORMWATER

Wastewater and stormwater runoff from most of the central area of the city (including the project site) is collected by the City's CSS, which is operated and maintained by the City of Sacramento Department of Utilities. The CSS has a total service area of 7,545 acres. The CSS consists of the CWTP, pumping stations (Sumps 1/1A and 2/2A), Pioneer Reservoir, and in-line and off-line storage facilities. The collection system consists of trunks, interceptors, reliefs, force mains, laterals, and other pipelines and has a total storage capacity of about 115 af (37 million gallons) (City of Sacramento 2013).

The flows in the CSS are conveyed to two pumping stations (Sumps 1/1A and 2/2A) located near the Sacramento River (Central Valley RWQCB 2015:F-4). Up to 60 mgd of wastewater flows in the CSS are conveyed to the Regional San force main, which carries flows to the Sacramento Regional Wastewater Treatment Plant (Regional San WWTP). When flows are greater than 60 mgd, the additional flows are conveyed to the CWTP via the CWTP force main and/or to Pioneer Reservoir via the Pioneer Interceptor.

Wastewater Treatment and Disposal

Wastewater treatment in the city is provided by Regional San and the City of Sacramento. Regional San operates all regional interceptors and wastewater treatment plants serving the city except for the combined sewer and storm drain treatment facilities, which are operated by the City of Sacramento.

Sacramento Regional Wastewater Treatment Plant

The Regional San wastewater conveyance system is composed of 169 miles of interceptor pipelines, 46 miles of force mains, and 11 pump stations before it reaches the Regional San WWTP near Elk Grove (Regional San 2018). The Regional San WWTP currently provides secondary treatment of wastewater, has a permitted treatment capacity of 181 mgd of average dry-weather flow, and currently treats approximately 150 million gallons of wastewater each day. A Wastewater Operating Agreement between Regional San and the City limits wastewater flows from the city to 60 mgd (City of Sacramento 2014:4-2, 4-9). In 2014, dry weather flows to the Regional San WWTP were 18 mgd. The remaining capacity is reserved for stormwater. In 2015, most (94.2 percent) of the combined wastewater and stormwater flows in the CSS, in addition to flows in the City's separated sewer system, were delivered to the Regional San WWTP (City of Sacramento 2016a:6-10).

During heavy storms when flows exceed 60 mgd, the CWTP is used to provide primary treatment of an additional 130 mgd. Flows beyond 190 mgd are diverted to the Pioneer Reservoir storage and treatment facility, which has a capacity of 250 mgd. When all three treatment facilities (Regional San WWTP, CWTP, and Pioneer Reservoir) have reached capacity, excess flows (CSOs) are directly discharged into the Sacramento River from Sump 2 without treatment. In the central city, when the CSS pipeline system capacities are surpassed, which can occur during storm events, the excess flows flood local streets through maintenance holes and catch basins.

Combined Wastewater Treatment Plant and Pioneer Reservoir

During extreme high-flow conditions after treatment has been maximized at the Pioneer Reservoir and the CWTP, discharges of untreated combined wastewater may occur at Sump 2/2A through Discharge Points 004 and 005 and at the Sump 1/1A Pioneer Bypass at Discharge Point 007 (Central Valley RWQCB 2015:F-5).

During moderate to large storms when the CSS flows are greater than 60 mgd, flows greater than 60 mgd are routed to the CWTP and/or Pioneer Reservoir for temporary storage (City of Sacramento 2016a:6-12). When flows exceed storage capacity, the excess flows are released to the Sacramento River after receiving primary treatment, including chlorination and dechlorination. When the storage and treatment capacities are reached, additional CSS flows are discharged directly to the Sacramento River from Sump 1 and/or Sump 2. In 2015, Pioneer Reservoir treated 278 af (91 million gallons) of wastewater that was discharged. The CWTP had no discharges in 2015.

Combined Sewer Overflows and CSS Improvements

Most of the time, the CSS treatment facilities (CWTP and Pioneer Reservoir) capture and provide treatment for up to 100 percent of the combined sewer flows (Central Valley RWQCB 2015:F-36). The CSS uses a combination of storage,

such as in-line storage, and treatment facilities to manage flows in the CSS and minimize CSOs (Central Valley RWQCB 2015:F-48). There have been infrequent instances where small volumes of untreated overflows have occurred from some of the discharge points into the Sacramento River. The City's efforts to comply with the CSO Control Policy have resulted in consistent and significant reductions in dry-weather and dry-season flows over the last 20 years. The overall annual average CSO discharge volume decreased by more than 60 percent over the past 24 years. Water conservation, new plumbing codes for redevelopment, and ongoing collection system improvements are all factors in the gradual decrease in dry- and wet-weather flows over time.

The average number of days that untreated CSOs were discharged per year has also decreased from 7 per year in the early 1990s, before implementation of the CSSIP, to less than 1 per year in the past 10 years. The treated CSO discharges have also decreased from 15 times per year on average to an average of four times per year during the same period. As of June 2015, the last untreated release of CSO occurred in the 2012–2013 storm year (Central Valley RWQCB 2015:F-21).

The CSSIP developed by the City is designed to make progress toward the final goal of minimizing street flooding during a 10-year storm event and to prevent structure flooding during the 100-year storm event (Central Valley RWQCB 2015:F-52). A number of capital improvement projects included in the CSSIP that were designed to reduce discharges from the CSS and maximize CSS storage capacity have been completed (Central Valley RWQCB 2015:F-48). For example, in 2014, the City completed construction of the Oak Park Regional Storage Facility, which provides an additional 4 million gallons of regional storage in the CSS. In addition, part of this CSSIP project involves use of a new hydraulic model to optimize system performance and ensure all storage fills completely during major storm events. Many other CSSIP have been completed, and other projects are underway or planned as part of the City's Downtown Combined Sewers Upsizing Project to improve system operations and capacity (City of Sacramento 2019).

ENERGY

Electricity

The Sacramento Municipal Utility District (SMUD) generates, transmits, and distributes electrical power to a 900-square-mile service area that includes Sacramento County and a small portion of Placer County. SMUD's electricity sources include hydropower generation; cogeneration; advanced and renewable technologies, such as wind, solar, and biomass/landfill gas power; and power purchased on the wholesale market.

SMUD transmits power to the downtown Sacramento area by a series of overhead and underground 115-kilovolt (kV) transmission lines that feed 12-kV and 21-kV distribution systems (SMUD 2019). Transmission lines run parallel to R Street east of 19th Street and along 19th and 20th Streets south of R Street. These lines connect to SMUD Station B at 19th and O Streets. An underground 115-kV loop connects SMUD Station D at 8th and R Streets. Station D drops the 115 kV down to 21 kV and 12 kV to serve the overall downtown area. The 12-kV system is a high-reliability network with redundant feeds, intended to serve the high-rise core area where it is important to keep critical government and business facilities operating. The 21-kV system serves the balance of the downtown area.

The Capitol Building (Historic Capitol and Annex) is served by SMUD for electric services. Electrical service currently enters the site from N Street with transformers located adjacent to the existing Annex serving both buildings.

Natural Gas

The Pacific Gas and Electric Company (PG&E) supplies natural gas to the Sacramento area and to a larger 70,000-square-mile service territory. In downtown Sacramento, PG&E has both high-pressure and low-pressure distribution systems. High-pressure system pipelines, generally 4 inches in diameter and larger, carry gas at approximately 40 pounds per square inch. Low-pressure system pipelines, generally 2 inches in diameter, carry gas at about 0.25 pound per square inch. Service is generally provided from the low-pressure system unless usage exceeds about 3,000 cubic feet per hour. Regulator stations at various locations are used to reduce high pressure to low pressure.

Natural gas service is not provided to the Capitol building (Griffith, pers. comm. 2019). However, the Capitol building's heating is currently provided by steam from the State's Central Utility Plant, which uses natural gas to fire boilers that generate steam.

SOLID WASTE

The waste stream generated in the city of Sacramento is more than 589,000 tons per year and includes everything from residential and commercial refuse to material being recycled to construction and demolition (C&D) material to garden refuse (CalRecycle 2019a). The City collects all residential solid waste within city boundaries. Most of the residential waste is disposed of at the Sacramento County Kiefer Landfill. Commercial solid waste is collected by private franchised haulers authorized by the Sacramento Solid Waste Authority. Seventeen different solid waste haulers provide solid waste collection for commercial properties and businesses in Sacramento. Commercial waste collected in the city is disposed of at various facilities, including Kiefer Landfill, the Yolo County Landfill, and L and D Landfill. For the landfills that serve the city, between 11 percent (L and D Landfill) and 96 percent (Sacramento County Kiefer Landfill) of their respective total capacities remain (Table 4.4-4).

Table 4.4-4 Landfill Capacity

Facility	Daily Permitted Capacity (tons)	Maximum Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)
L and D Landfill	4,125	18,300,000	1,936,081
Sacramento County Kiefer Landfill	10,815	117,400,000	112,900,000
Elder Creek Transfer and Recovery Station	2,500	NA	NA
North Area Transfer Station	2,400	NA	NA
Sacramento Recycling and Transfer Station	2,500	NA	NA

Note: NA = not applicable

Sources: CalRecycle 2019b, 2019c, 2019d, City of Sacramento 2016b

4.4.3 Environmental Impacts and Mitigation Measures

ANALYSIS METHODOLOGY

Water Demand, Wastewater, and Solid Waste

Impacts on water demand, wastewater, solid waste, and associated infrastructure that would result from the project were identified by determining the adequacy of existing infrastructure and comparing existing service capacity against future demand associated with project implementation. When possible, a quantitative comparison was used to determine impacts of the project on future demands. Evaluations of potential utilities impacts are based, in part, on the 2018 water supply and wastewater utility bills for the Capitol Building, Annex, and Capitol Park. Evaluations are also based on information pertaining to the project, personal communications with DGS, and review of letters received during the scoping period.

Energy

Electricity

Impacts related to electricity were evaluated by determining whether any new facilities would need to be constructed to serve the project, whether SMUD would be able to serve the project, and whether the construction of necessary electrical improvements would adversely affect SMUD's electrical capacity or infrastructure or interrupt utility service during construction.

Natural Gas

Similar to electricity, impacts related to natural gas were evaluated by determining whether any new facilities would need to be constructed to serve the project and whether any utility services would be interrupted during construction.

THRESHOLDS OF SIGNIFICANCE

An impact on utilities and service systems would be significant if implementation of the Capitol Annex Project would:

- ▶ require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, or natural gas facilities, the construction or relocation of which could cause significant environmental effects;
- ▶ result in water supplies that are insufficient to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;
- ▶ result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand, in addition to the provider's existing commitments;
- ▶ generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure or otherwise impair the attainment of solid waste reduction goals; or
- ▶ not comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

ISSUES NOT DISCUSSED FURTHER

No natural gas is proposed to be used for the project and no natural gas infrastructure would be constructed for the project, which would be fully electric. Therefore, the project would have no impact on natural gas demand or infrastructure and this issue is not discussed further.

Project-related energy consumption for construction and operations is evaluated in Section 4.7, "Energy," Impact 4.7-1. The project would not result in wasteful, inefficient, or unnecessary consumption of energy.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.4-1: New or Expanded Utility Infrastructure

The Capitol Annex Project would use existing infrastructure for water supply, wastewater/stormwater conveyance, and electricity when feasible. However, updated or replacement connections or conveyance lines to the new Annex, visitor/welcome center or parking facility may be required. Construction associated with new utility connections or localized realignments would occur within the planned construction footprint. The potential environmental effects of construction activities within the identified footprint are evaluated throughout this EIR as part of the proposed project. Any utility-related construction activities would occur in compliance with BMPs set forth in the NPDES General Permit and Stormwater Quality Design Manual for the Sacramento region. No additional new or expanded infrastructure beyond the construction area identified for the project would be required. This impact would be **less than significant**.

The project site has existing water supply, wastewater, stormwater, and electricity infrastructure in place. The project involves adding a new visitor/welcome center, constructing a new underground parking facility, and increasing the Annex size by approximately 200,000 square feet. However, the number of employees and visitors served by these new facilities would not change. Demand for water and wastewater is driven by the number of facility visitors/occupants, and the new facilities would be constructed with modern energy- and water-conservation measures. The visitor/welcome center and parking facility would be underground and would not alter the area of

impervious surface generating stormwater runoff. Similarly, the footprint of the new Annex would not be substantially larger than that of the existing Annex, resulting in only a minor increase in the area of impervious surface. Given these conditions, the project would not result in a substantial increase in demand for water, wastewater/stormwater conveyance, or electricity.

The Capitol Annex Project would continue to use existing utility infrastructure serving the Capitol Building. However, due to the proposed increased building size of the Annex, existing water and wastewater infrastructure may need to be expanded; and continued use of existing infrastructure may not be feasible. As described in Section 3, "Project Description," building codes determine the size of water lines based on the number of people served by the line and the square footage and type of structure the line connects to. Therefore, the increased square footage of facilities under the proposed project may necessitate the installation of larger water and wastewater pipelines to meet building codes, even though the number of people served would not change. Additionally, existing SMUD transformers located adjacent to the Annex would be replaced with new transformers on the project site. Electrical service would be increased to add additional power for the new visitor/welcome center and parking garage. Construction associated with new or replacement utility connections or localized realignments would occur within the planned construction footprint. The potential environmental effects of construction activities within the identified project footprint are evaluated throughout this EIR as part of the proposed project. Any utility-related construction activities would occur in compliance with BMPs set forth in the NPDES General Permit and Stormwater Quality Design Manual for the Sacramento region.

Additionally, as described in the discussion of Impact 4.10-2 in Section 4.10, "Hydrology and Water Quality," the project would include development and implementation of a drainage plan to capture stormwater generated by the new impervious surfaces.

Project construction could potentially interrupt utility services to existing land uses if there was inadvertent damage to existing infrastructure or the need to reroute existing lines. DGS would coordinate with utility providers throughout the design and construction process, as necessary, to ensure minimal disruption of utility services and minimal inconvenience to existing utility customers. In addition, DGS would obtain encroachment permits from the City of Sacramento Department of Public Works before ground-disturbing activities or improvements within City rights-of-way, which would prevent damage to existing utility lines and provide adequate coordination for any required interim rerouting, thus avoiding the potential for interruption of existing utility service.

Construction and expansion of utility infrastructure and connections are evaluated as part of the project throughout this EIR. No additional new or expanded infrastructure would be required beyond those already identified. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-2: Adequacy of Water Supplies

The Capitol Annex Project would not change the number of employees or visitors at the State Capitol and the project would implement water conservation measures that exceed Title 24 requirements and meet Leadership in Energy and Environmental Design version 4 (LEED v4) Silver standards. It is conservatively estimated that the project would result in the same water demand as the current Capitol and Annex: 20.72 afy for commercial water demand and 19.3 afy for irrigation water demand, for a combined water demand of 40.02 afy. This continued water demand represents an estimated 0.03 percent of the City's surplus water supply (152,688 afy). The City currently serves the Capitol and would continue to adequately serve the project site after the project becomes operational. This impact would be **less than significant**.

The Capitol Annex Project site receives water supplies for both commercial (Capitol and Annex building) and irrigation of landscaping from the City of Sacramento. Commercial water use at the Capitol and Annex currently averages 18,494 gpd (20.72 afy) (City of Sacramento Department of Utilities 2018). Existing water supply for irrigation

averages 17,230 gpd (19.3 afy) (City of Sacramento Department of Utilities 2018). Therefore, the combined water use at the project site averages 35,724 gpd (40.02 afy).

As described in Chapter 3, "Project Description," the number of employees currently occupying the Annex would not change as a result of developing the new Annex and impervious surfaces and landscaping would remain similar to existing conditions. In addition, the Capitol Annex Project would include water conservation measures that exceed 2016 Title 24 water efficiency requirements and meet LEED v4 Silver standards. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Landscaping would use water efficient measures (irrigation methods, plant selection) as another water-saving design measure of the project. Because the project would implement water efficiency measures, the continued overall water demand of approximately 40.02 afy for the project site is considered to be a conservative estimate. With implementation of the water-saving measures, the project would be consistent with City policies related to reducing water demand through implementation of water conservation measures (Policies U 2.1.10 and U 2.1.12).

The Annex also currently generates water demand associated with heating and cooling, which is provided by the State's Central Plant. Heating for the new Annex, visitor/welcome center, and parking garage would no longer be provided through the Central Plant; rather, onsite electrical heating would be installed. However, cooling would continue to be provided by the Central Plant. The Central Plant is permitted for its full-capacity water demand (DGS 2015:6). The full capacity of the Central Plant includes all the existing buildings it serves and new State buildings. Because the Annex is served by the Central Plant, water demand associated with the building's cooling needs would not be considered an increase in water demand at the Central Plant that has not been previously assessed.

The project's overall water demand (40.05 afy) represents approximately 0.05 percent in the City's overall system demand of 84,832 afy in 2015. As shown in Table 4.4-3, the City provided water supply equal to the demand in 2015. However, as of 2015, the City's groundwater pumping capacity was 23,077 afy, and the City has rights to 326,800 afy of surface water, for an available supply of over 349,000 afy. Therefore, the City currently has sufficient supply to continue to meet the project's water demands.

The City is projected to have a surplus water supply of between 152,688 afy in 2020 and 132,390 afy in 2040 during normal, single dry, and multiple dry years through 2040 (see Table 4.4-3). After project construction is complete and the Annex is reoccupied in 2025, the project's water use would represent approximately 0.01 percent of the City's surplus water supply from 2020 through 2040. Implementation of the project would not increase the water demand at the project site. The City currently serves the Capitol and would continue to adequately serve the project site after the project becomes operational.

The City would continue to have adequate water supply to serve commercial and irrigation water to the Capitol Annex Project. Additionally, the project would reduce its water demand through implementation of water conservation measures that would exceed 2016 Title 24 requirements and meet LEED v4 Silver standards. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-3: Wastewater Infrastructure and Treatment Capacity

Based on the project's estimated water demand, the projected wastewater discharge resulting from the Capitol Annex Project would be 18,494 gpd (20.72 afy). Although the City's remaining available capacity at the Regional San WWTP would continue to be sufficient to serve the project, the CSS and its treatment plants currently do not have sufficient capacity to treat wastewater and stormwater during storm events. However, exceedance of treatment capacity of the combined system is a rare event, and the City is implementing the CSSIP to make improvements throughout the system. Because the improvement plans to the CSS are in place, the project would be required to pay the City's adjusted Combined Sewer Development Plan Fees, and there is capacity sufficient to treat wastewater flows during dry-weather periods, this impact would be **less than significant**.

Water use at the Capitol and Annex currently averages 18,494 gpd; therefore, the estimated wastewater discharge is conservatively estimated to also be 18,494 gpd. Because the number of employees resulting from implementation of the project would not change, the projected wastewater discharge is assumed to remain 18,494 gpd (20.72 mgd). The City of Sacramento's current average dry-weather flow to the Regional San WWTP is 18 mgd, and the City's operating agreement with Regional San allows the City to convey up to 60 mgd to the facility. Thus, during dry weather, the City's remaining available capacity at the Regional San WWTP would be 42 mgd, which would be sufficient in continuing to serve the project site.

During storm events, the wastewater and stormwater flows in the CSS exceed 60 mgd. Excess flows are conveyed to the CWTP and Pioneer Reservoir for treatment before being discharged into the Sacramento River. During peak storm events, the CSS in-line storage and CWTP and Pioneer Reservoir treatment capacities are exceeded, which results in untreated CSOs being released to the Sacramento River. As described above under "Combined Sewer Overflows and CSS Improvements," the City has constructed and is planning improvement projects to enhance the CSS capacity and operation, the effect of which has been to decrease overflow events from seven per year in the early 1990s before implementation of the CSSIP to less than one per year in the past 10 years.

Although the number of treated and untreated CSOs released to the Sacramento River has substantially declined, the CSS, including its treatment plants (i.e., CWTP and Pioneer Reservoir) do not have capacity sufficient to treat wastewater and stormwater flows in the CSS during storm events. However, exceedance of treatment capacity at the CWTP and Pioneer Reservoir is a rare event (once in every 10 years), and the City is implementing the CSSIP to make improvements throughout the system.

As described for Impact 4.4-1, the project would include new wastewater infrastructure for the visitor/welcome center and a new on-site storm drain system. Although portions of the project site are already served by the CSS, because new connections and modifications to existing connections would occur, the City may require a Combined Sewer Development Fee (per City Code 13.08). Therefore, before construction activities at the project site begin, DGS and JRC would coordinate with the City in determining the Combined Sewer Development Fees associated with project implementation.

As previously described, exceedance of treatment capacity at the CWTP and Pioneer Reservoir is a rare event, the City is implementing the CSSIP to make improvements throughout the system, and DGS and JRC would coordinate with the City to determine appropriate Combined Sewer Development Fees for replacement of wastewater and stormwater infrastructure. For these reasons, and because there is capacity sufficient to continue to treat wastewater flows from the project site during dry weather, implementation of the Capitol Annex Project would not adversely affect the CSS wastewater conveyance or treatment capacity. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.4-4: Landfill Capacity and Compliance with Solid Waste Regulations

Implementation of the project is estimated to generate approximately 300,000 cubic yards of debris. In accordance with Section 5.408 of the California Green Building Standards Code (CALGreen), the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse a minimum of 65 percent of the debris generated during construction. After it is operational, the project would generate an amount waste similar to the amount generated by the current building. The building would recycle a minimum of 50 percent of the waste, as required for State operations by AB 75 and AB 939. Furthermore, there is adequate capacity at landfills in the region for disposal of solid waste generated by the project. Therefore, the project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. This impact would be **less than significant**.

Before each project component is constructed, demolition of existing structures and hardscaping and excavations, would occur. During these construction activities, materials such as concrete and steel would be separated, sorted, and recycled. Recommendations of the Phase I Environmental Site Assessment conducted for the project would be

implemented if any unforeseen hazardous materials are encountered (see Section 4.11, "Hazardous Materials and Public Health"). As demolition proceeds, concrete, metals, and other recyclable materials would be taken to local recycling centers. The Capitol Annex Project is estimated to generate approximately 300,000 cubic yards of debris. In accordance with Section 5.408 of CALGreen, the project would implement a Construction Waste Management Plan for recycling and/or salvaging for reuse a minimum of 65 percent of C&D debris generated during project construction. Additionally, the project would be required to meet LEED v4 requirements for waste reduction during construction. As demolition proceeds, recyclable materials would be taken to local recycling centers. After materials are recycled or salvaged, the waste would be taken to one of the nearby landfills. Multiple landfills, including Sacramento County Kiefer Landfill, L and D Landfill, and recycling and transfer stations, are located throughout the region. The Kiefer Landfill has a remaining capacity of 112,900,000 cubic yards (96 percent of permitted capacity of 117,400,000 cubic yards) (Table 4.4-4). The L and D Landfill has a remaining capacity of 1,936,081 cubic yards (11 percent of permitted capacity of 18,300,000 cubic yards) (Table 4.4-4). After a minimum of 65 percent of C&D debris is recycled or salvaged, if waste haulers choose to take C&D waste to one of the nearby landfills, the project's remaining C&D waste, 105,000 cubic yards, would be 5.42 percent of L and D Landfill's remaining capacity and 0.07 percent of Kiefer Landfill's remaining capacity. There is adequate capacity at landfills in the region for disposal of solid waste generated by project construction.

Operation of the project would result in waste generation similar to that under existing conditions. Currently, 1,700 employees occupy the Capitol Annex (Hollingsworth, pers. comm., 2019). Because the Capitol Annex Project would not result in any new employees, it is anticipated that employment would remain at 1,700 employees after project completion. As shown in Table 4.4-5, the new Annex, at full occupancy, would generate an estimated 629 tons of solid waste per year, primarily generated by the office uses. However, the amount of waste generated by operation of the new Annex would be less than shown in Table 4.4-5 because the project would recycle a minimum of 50 percent of its waste, as required for State operations by AB 75 and AB 939. With implementation of waste diversion and reduction requirements, it is estimated that approximately 0.86 ton per day and approximately 315 tons per year (1.15 cubic yards per year) of waste generated by employees in the Annex would be disposed of in a landfill.

Table 4.4-5 Estimated Solid Waste Generated by Operation of the Proposed Project

Employment Type	Occupancy	Disposal Rate ¹ (tons/employee/year)	Tons per Day	Tons per Year	Cubic Yards per Day	Cubic Yards per Year
Office	1,700	0.37	1.72	629	2.30	838.67

¹ To provide a conservative estimate of waste generated by the project, the generation rates used here include waste that may be recycled or otherwise diverted from the landfill.

Individual businesses, including State buildings and facilities, are required to contract their own solid waste collection service. Commercial solid waste haulers can dispose of the collected waste at any landfill facility or transfer station they select. Multiple landfills, including Sacramento County Kiefer Landfill, L and D Landfill, and recycling and transfer stations, are located throughout the region. Table 4.4-4, above, shows the permitted daily disposal capacities, total landfill capacity, and remaining landfill capacity of these facilities. The estimated amount of waste generated by the project on a daily basis, after recyclable material is diverted, would represent approximately 0.021 percent of the permitted daily disposal capacity of the transfer stations and L and D Landfill and 0.008 percent of Kiefer Landfill's permitted daily disposal capacity. Assuming the new Annex would operate for 50 years, the total amount of solid waste generated by the project, after recyclable material is diverted, would be approximately 1.08 percent of the remaining capacity of L and D landfill and approximately 0.02 percent of Kiefer Landfill's remaining capacity. There is adequate capacity at transfer stations and landfills in the region to serve the project. Solid waste facilities have adequate capacity for disposal of solid waste generated by construction and operation of the Capitol Annex Project. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.5 AIR QUALITY

This section includes a discussion of existing air quality conditions, a summary of applicable regulations, and an analysis of potential construction and operational air quality impacts caused by implementation of the Capitol Annex Project.

4.5.1 Regulatory Setting

Air quality in the region is regulated through the efforts of various federal, State, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, planning, policymaking, education, and a variety of programs. The agencies responsible for improving the air quality within the air basins are discussed below.

FEDERAL

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) has been charged with implementing national air quality programs. EPA's air quality mandates draw primarily from the federal Clean Air Act (CAA), which was enacted in 1970. The most recent major amendments made by Congress were in 1990.

Criteria Air Pollutants

The CAA required EPA to establish national ambient air quality standards (NAAQS) for six common air pollutants found all over the U.S. referred to as criteria air pollutants. EPA has established primary and secondary NAAQS for the following criteria air pollutants: ozone, carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), respirable particulate matter with aerodynamic diameter of 10 micrometers or less (PM₁₀) and fine particulate matter with aerodynamic diameter of 2.5 micrometers or less (PM_{2.5}), and lead. The NAAQS are shown in Table 4.5-1. The primary standards protect public health with an adequate health margin for safety and the secondary standards protect public welfare from adverse effects, including those related to effects on soils, water, crops, vegetation, human-made materials, animals, wildlife, weather, visibility, and climate. The CAA also required each state to prepare a State Implementation Plan (SIP) for attaining and maintaining the NAAQS. The federal Clean Air Act Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. California's 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 is responsible for reviewing all SIPs to determine whether they conform to the mandates of the CAA and its amendments, and whether implementation will achieve air quality goals. If EPA determines a SIP to be inadequate, EPA may prepare a federal implementation plan that imposes additional control measures. If an approvable SIP is not submitted or implemented within the mandated time frame, sanctions may be applied to transportation funding and stationary air pollution sources in the air basin.

Table 4.5-1 National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California (CAAQS) ^{1,2}	National (NAAQS) ³ Primary ^{2,4}	National (NAAQS) ³ Secondary ^{2,5}
Ozone	1-hour	0.09 ppm (180 µg/m ³)	— ⁵	Same as primary standard
Ozone	8-hour	0.070 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	Same as primary standard
Carbon monoxide (CO)	1-hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Same as primary standard
Carbon monoxide (CO)	8-hour	9 ppm ⁶ (10 mg/m ³)	9 ppm (10 mg/m ³)	Same as primary standard
Nitrogen dioxide (NO ₂)	Annual arithmetic mean	0.030 ppm (57 µg/m ³)	53 ppb (100 µg/m ³)	Same as primary standard
Nitrogen dioxide (NO ₂)	1-hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	—
Sulfur dioxide (SO ₂)	24-hour	0.04 ppm (105 µg/m ³)	—	—

Pollutant	Averaging Time	California (CAAQS) ^{1,2}	National (NAAQS) ³ Primary ^{2,4}	National (NAAQS) ³ Secondary ^{2,5}
Sulfur dioxide (SO ₂)	3-hour	—	—	0.5 ppm (1300 µg/m ³)
Sulfur dioxide (SO ₂)	1-hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	—
Respirable particulate matter (PM ₁₀)	Annual arithmetic mean	20 µg/m ³	—	Same as primary standard
Respirable particulate matter (PM ₁₀)	24-hour	50 µg/m ³	150 µg/m ³	Same as primary standard
Fine particulate matter (PM _{2.5})	Annual arithmetic mean	12 µg/m ³	12.0 µg/m ³	15.0 µg/m ³
Fine particulate matter (PM _{2.5})	24-hour	—	35 µg/m ³	Same as primary standard
Lead ⁶	Calendar quarter	—	1.5 µg/m ³	Same as primary standard
Lead ⁶	30-Day average	1.5 µg/m ³	—	—
Lead ⁶	Rolling 3-Month Average	—	0.15 µg/m ³	Same as primary standard
Hydrogen sulfide	1-hour	0.03 ppm (42 µg/m ³)	No national standards	No national standards
Sulfates	24-hour	25 µg/m ³	No national standards	No national standards
Vinyl chloride ⁶	24-hour	0.01 ppm (26 µg/m ³)	No national standards	No national standards
Visibility-reducing particulate matter	8-hour	Extinction of 0.23 per km	No national standards	No national standards

Notes: µg/m³ = micrograms per cubic meter; km = kilometers; ppb = parts per billion; ppm = parts per million.

- California standards for ozone, carbon monoxide, SO₂ (1- and 24-hour), NO₂, particulate matter, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
- Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25 degrees Celsius (°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.
- National standards (other than ozone, particulate matter, 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 three years, is equal to or less than the standard. The PM₁₀ 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. The PM_{2.5} 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. Environmental Protection Agency for further clarification and current federal policies.
- National primary standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
- National secondary standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
- The California Air Resources Board 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: CARB 2016

Toxic Air Contaminants

Toxic air contaminants (TACs), or in federal parlance, hazardous air pollutants (HAPs), are a defined set of airborne pollutants that may pose a present or potential hazard to human health. 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.

A wide range of sources, from industrial plants to motor vehicles, emit TACs. The health effects associated with TACs are quite diverse and generally are assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage; or short-term acute effects such as eye watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

For evaluation purposes, TACs are separated into carcinogens and non-carcinogens based on the nature of the physiological effects associated with exposure to the pollutant. Carcinogens are assumed to have no safe threshold below which health impacts would not occur. This contrasts with criteria air pollutants for which acceptable levels of exposure can be determined and for which the ambient standards have been established (Table 4.5-1). Cancer risk from TACs is expressed as excess cancer cases per one million exposed individuals, typically over a lifetime of exposure.

EPA and California Air Resources Board (CARB) regulate HAPs and TACs, respectively, through statutes and regulations that generally require the use of the maximum available control technology or best available control technology (BACT) for air toxics to limit emissions.

STATE

CARB 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 (CCAA). The CCAA, which was adopted in 1988, required CARB to establish California ambient air quality standards (CAAQS) (Table 4.5-1).

Criteria Air Pollutants

CARB 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 attain and maintain the CAAQS by the earliest date practical. The CCAA specifies that local air districts should focus particular attention on reducing the emissions from transportation and area-wide emission sources. The CCA also provides air districts with the authority to regulate indirect sources.

Toxic Air Contaminants

TACs in California are regulated primarily through the Tanner Air Toxics Act (Assembly Bill [AB] 1807, Chapter 1047, Statutes of 1983) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588, Chapter 1252, Statutes of 1987). AB 1807 sets forth a formal procedure for CARB to designate substances as TACs. Research, public participation, and scientific peer review are required before CARB can designate a substance as a TAC. To date, CARB has identified 21 TACs and adopted EPA's list of HAPs as TACs. Most recently, particulate matter (PM) exhaust from diesel engines (diesel PM) was added to CARB's list of TACs.

After a TAC is identified, CARB 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 no safe threshold exists, the measure must incorporate BACT for toxics 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.

AB 617 of 2017 aims to help protect air quality and public health in communities around industries subject to the State's cap-and-trade program for greenhouse gas (GHG) emissions. AB 617 imposes a new State-mandated local program to address non-vehicular sources (e.g., refineries, manufacturing facilities) of criteria air pollutants and TACs.

The bill requires CARB to identify high-pollution areas and directs air districts to focus air quality improvement efforts through adoption of community emission reduction programs within these identified areas. Currently, air districts review individual sources and impose emissions limits on emitters based on BACT, pollutant type, and proximity to nearby existing land uses. This bill addresses the cumulative and additive nature of air pollutant health effects by requiring community-wide air quality assessment and emission reduction planning.

CARB 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). 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 CARB's Risk Reduction Plan, it is expected that diesel PM concentrations will be 85 percent less in 2020 in comparison to year 2000 (CARB 2000). Adopted regulations are also expected to continue to reduce formaldehyde emissions emitted by cars and light-duty trucks. As emissions are reduced, it is expected that risks associated with exposure to the emissions will also be reduced.

Sierra Club v. County of Fresno

In December 2018, the California Supreme Court issued its decision in *Sierra Club v. County of Fresno* (226 Cal.App.4th 704). The case reviewed the long-term, regional air quality analysis contained in the EIR for the proposed Friant Ranch development. The project is located in unincorporated Fresno County within the San Joaquin Valley Air Basin, an air basin currently in nonattainment for multiple NAAQS and CAAQS, including ozone and PM. The Court ruled that the air quality analysis failed to adequately disclose the nature and magnitude of long-term air quality impacts from emissions of criteria pollutants and precursors "in sufficient detail to enable those who did not participate in its preparation to understand and consider meaningfully the issues the proposed project raises." The Court noted that the air quality analysis did not provide a discussion of the foreseeable adverse effects of project-generated emissions on Fresno County's likelihood of exceeding the NAAQS and CAAQS for criteria air pollutants nor did it explain why it was not "scientifically possible" to determine such a connection. The Court concluded that "because the EIR as written makes it impossible for the public to translate the bare numbers provided into adverse health impacts or to understand why such translation is not possible at this time," the EIR's discussion of air quality impacts was inadequate.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

Sacramento Metropolitan Air Quality Management District

Criteria Air Pollutants

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for planning to meet NAAQS and CAAQS in Sacramento County. SMAQMD works with other local air districts in the Sacramento region to maintain the region's portion of the SIP for ozone. The SIP is a compilation of plans and regulations that govern how the region and State will comply with the federal Clean Air Act requirements to attain

and maintain the NAAQS for ozone. The Sacramento Region has been designated as a "severe" 8-hour ozone nonattainment area with an extended attainment deadline of June 15, 2019.

SMAQMD has developed a set of guidelines for use by lead agencies when preparing environmental documents. The guidelines contain thresholds of significance for criteria pollutants and TACs, and also make recommendations for conducting air quality analyses. After SMAQMD guidelines have been consulted and the air quality impacts of a project have been assessed, the lead agency's analysis undergoes a review by SMAQMD. SMAQMD submits comments and suggestions to the lead agency for incorporation into the environmental document.

Projects subject to SMAQMD jurisdiction are to comply with adopted 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, lighting equipment) with an internal combustion engine greater than 50 horsepower must have a SMAQMD permit or CARB portable equipment registration.
- ▶ **Rule 202: New Source Review.** The purpose of this rule is to provide for the issuance of authorities to construct and permits to operate at new and modified stationary air pollution sources and to provide mechanisms, including emission offsets, by which authorities to construct such sources may be granted without interfering with the attainment or maintenance of ambient air quality standards.
- ▶ **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. Fugitive dust controls include the following
 - Water all exposed surfaces two times daily.
 - Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site.
 - Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day.
 - Limit vehicles 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. 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.
 - Maintain all construction equipment in proper working condition according to manufacturer's specifications.
- ▶ **Rule 442: Architectural Coatings.** The purpose of this rule is to limit the emissions of volatile organic compounds from the use of architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured for use within the District.
- ▶ **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.

In addition, if modeled construction-generated emissions for a project are not reduced to levels below SMAQMD's mass emission threshold (85 pounds per day [lb/day] for oxides of nitrogen [NO_x], 80 lb/day or 14.6 tons/year for PM₁₀, and 82 lb/day or 15 tons/year for PM_{2.5}) after the standard construction mitigation is applied, then SMAQMD recommends using an offsite construction mitigation fee to purchase offsite 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.

Toxic Air Contaminants

At the local level, air districts may adopt and enforce CARB control measures for TACs. 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 SMAQMD. 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.

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.

City of Sacramento

City of Sacramento 2035 General Plan

The following policies in the Environmental Resources Element of the City of Sacramento 2035 General Plan are relevant to the analysis of air quality effects.

- ▶ **Policy ER 6.1.1: Maintain Ambient Air Quality Standards.** The City shall work with the California Air Resources Board and the Sacramento Metropolitan Air Quality Management District (SMAQMD) to meet State and Federal ambient air quality standards in order to protect residents, regardless of age, culture, ethnicity, gender, race, socioeconomic status, or geographic location, from the health effects of air pollution.
- ▶ **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 reactive organic gases, nitrogen oxides, and particulate matter (PM₁₀ and PM_{2.5}) through project design.
- ▶ **Policy ER 6.1.3: Emissions Reduction.** The City shall require development projects that exceed [SMAQMD-adopted] reactive organic gas (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 6.1.4: Sensitive Uses.** The City shall coordinate with SMAQMD in evaluating exposure of sensitive receptors to toxic air contaminants and will impose appropriate conditions on projects to protect public health and safety.

4.5.2 Environmental Setting

The project site is located in the Sacramento Valley Air Basin (SVAB). The SVAB includes all of Butte, Colusa, Glenn, Sacramento, 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.

CLIMATE, METEOROLOGY, AND TOPOGRAPHY

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 River–San Joaquin River 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. The highest frequency of poor air movement occurs in the fall and winter when high-pressure cells are often 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 meteorological 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 ROG and 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 Western Regional Climate Center Sacramento Executive Airport Station. The normal annual precipitation is approximately 18 inches. January temperatures range from a normal minimum of 39.6°F to a normal maximum of 53.5°F. July temperatures range from a normal minimum of 59.7°F to a normal maximum of 91.7°F (WRCC 2016). The prevailing wind direction is from the south (WRCC 2002).

CRITERIA AIR POLLUTANTS

Concentrations of criteria air pollutants are used to indicate the quality of the ambient air. Ozone, PM₁₀, and PM_{2.5} are the criteria air pollutants of primary concern in this analysis due to their nonattainment status with respect to the applicable NAAQS and/or CAAQS in the SVAB. Brief descriptions of these key criteria air pollutants in the SVAB and their health effects are provided below. The attainment statuses of all criteria air pollutants with respect to the NAAQS and the CAAQS in Sacramento County are shown in Table 4.5-2. Monitoring data applicable to the project site is provided in Table 4.5-3.

Table 4.5-2 Attainment Status Designations for Sacramento County

Pollutant	National Ambient Air Quality Standard	California Ambient Air Quality Standard
Ozone	Attainment (1-hour) ¹	Nonattainment (1-hour) Classification-Serious ²
Ozone	Nonattainment (8-hour) ³ Classification=Severe	Nonattainment (8-hour)
Ozone	Nonattainment (8-hour) ⁴ Classification=Severe	Nonattainment (8-hour)
Respirable particulate matter (PM ₁₀)	Attainment (24-hour)	Nonattainment (24-hour)
Respirable particulate matter (PM ₁₀)	Attainment (24-hour)	Nonattainment (Annual)
Fine particulate matter (PM _{2.5})	Nonattainment (24-hour)	(No State Standard for 24-Hour)
Fine particulate matter (PM _{2.5})	Attainment (Annual)	Attainment (Annual)
Carbon monoxide (CO)	Attainment (1-hour)	Attainment (1-hour)
Carbon monoxide (CO)	Attainment (8-hour)	Attainment (8-hour)
Nitrogen dioxide (NO ₂)	Unclassified/Attainment (1-hour)	Attainment (1-hour)
Nitrogen dioxide (NO ₂)	Unclassified/Attainment (Annual)	Attainment (Annual)
Sulfur dioxide (SO ₂) ⁵	(Attainment Pending) (1-Hour)	Attainment (1-hour)
Sulfur dioxide (SO ₂) ⁵	(Attainment Pending) (1-Hour)	Attainment (24-hour)
Lead (Particulate)	Attainment (3-month rolling average)	Attainment (30-day average)
Hydrogen Sulfide	No Federal Standard	Unclassified (1-hour)
Sulfates	No Federal Standard	Attainment (24-hour)
Visibly Reducing Particles	No Federal Standard	Unclassified (8-hour)
Vinyl Chloride	No Federal Standard	Unclassified (24-hour)

¹ Air Quality meets federal 1-hour Ozone standard (77 FR 64036). EPA revoked this standard, but some associated requirements still apply. SMAQMD attained the standard in 2009. SMAQMD has requested EPA recognize attainment to fulfill the requirements.

² Per Health and Safety Code § 40921.5(c), the classification is based on 1989–1991 data, and therefore does not change.

³ 1997 Standard.

⁴ 2008 Standard.

⁵ 2010 Standard.

Source: SMAQMD 2016

Ozone

Ground-level ozone is not emitted directly into the air but is created by chemical reactions between ROG and NO_x (which is why NO₂ is described below even though Sacramento County is not in non-attainment for this pollutant). This happens when pollutants emitted by cars, power plants, industrial boilers, refineries, chemical plants, and other sources chemically react in the presence of sunlight. Ozone at ground level is a harmful air pollutant because of its effects on people and the environment, and is the main ingredient in smog (EPA 2016). For consistency purposes of this analysis in the SVAB, ROG is considered as the precursor to ozone as defined by CARB and the CAAQS, even though ROG itself is not a criteria pollutant.

Acute health effects of ozone exposure include increased respiratory and pulmonary resistance, cough, pain, shortness of breath, and lung inflammation. Chronic health effects include permeability of respiratory epithelia and possibility of permanent lung impairment (EPA 2016). Emissions of the ozone precursors ROG and NO_x have decreased over the past two decades because of more stringent motor vehicle standards and cleaner burning fuels (CARB 2013).

Nitrogen Dioxide

NO₂ is a brownish, highly reactive gas that is present in all urban environments. The major human-made sources of NO₂ 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 NO₂. The combined emissions of NO and NO₂ are referred to as NO_x and are reported as equivalent NO₂. Because NO₂ is formed and depleted by reactions associated with photochemical smog (ozone), the NO₂ concentration in a particular geographical area may not be representative of the local sources of NO_x emissions (EPA 2012).

Acute health effects of exposure to NO_x includes coughing, difficulty breathing, vomiting, headache, eye irritation, chemical pneumonitis, or pulmonary edema, breathing abnormalities, cough, cyanosis, chest pain, rapid heartbeat, and death. Chronic health effects include chronic bronchitis and decreased lung function (EPA 2016).

Particulate Matter

PM₁₀ is emitted directly into the air, and includes 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 (CARB 2013). PM_{2.5} includes a subgroup of smaller particles that have an aerodynamic diameter of 2.5 micrometers or less. PM₁₀ 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. Direct emissions of PM₁₀ are projected to remain relatively constant through 2035. Direct emissions of PM_{2.5} have steadily declined in the SVAB between 2000 and 2010 and then are projected to increase very slightly through 2035. Emissions of PM_{2.5} in the SVAB are dominated by the same sources as emissions of PM₁₀ (CARB 2013).

Acute health effects of exposure to PM₁₀ include breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular diseases including asthma and chronic obstructive pulmonary disease, and premature death. Chronic health effects include alterations to the immune and carcinogenesis (EPA 2016). For PM_{2.5}, short-term exposures (up to 24-hour duration) have been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. These adverse health effects have been reported primarily in infants, children, and older adults with preexisting heart or lung diseases. Long-term (months to years) exposure to PM_{2.5} has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children.

MONITORING STATION DATA AND ATTAINMENT DESIGNATIONS

Criteria air pollutant concentrations are measured at several monitoring stations in the SVAB. The Sacramento-T Street station is the closest and most representative station to the project area with recent data for ozone, PM₁₀, and PM_{2.5}. Table 4.5-3 summarizes the air quality data from the last 3 years (2015–2017).

Both CARB and EPA use this type of monitoring data to designate areas according to their attainment status for criteria air pollutants (attainment designations are summarized above in Table 4.5-2).

Table 4.5-3 Summary of Annual Data on Ambient Air Quality (2015-2017)¹

	2015	2016	2017
Ozone			
Maximum concentration (1-hr/8-hr avg, ppm)	0.092/0.076	0.094/0.074	0.107/0.077
Number of days State standard exceeded (1-hr/8-hr)	0/4	0/3	1/3
Number of days national standard exceeded (8-hr)	4	3	3

	2015	2016	2017
Fine Particulate Matter (PM_{2.5})			
Maximum concentration (24-hour $\mu\text{g}/\text{m}^3$)	36.3	24.4	44.5
Number of days national standard exceeded (24-hour measured)	3	0	6.1
Respirable Particulate Matter (PM₁₀)			
Maximum concentration ($\mu\text{g}/\text{m}^3$)	57.8	50.3	149.9
Number of days State standard exceeded	*	1.1	*
Number of days national standard exceeded	0	0	0

Notes: $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; ppm = parts per million

¹. Measurements from the Sacramento-T Street station for ozone, respirable particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}).

Source: CARB 2019

TOXIC AIR CONTAMINANTS

According to the California Almanac of Emissions and Air Quality, health risks from TACs can largely be attributed to relatively few compounds, the most important being diesel PM (CARB 2013:5-2 to 5-4). 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, CARB has made preliminary concentration estimates based on a PM exposure method. This method uses the CARB emissions inventory's PM₁₀ database, ambient PM₁₀ monitoring data, and the results from several studies to estimate concentrations of diesel PM. In addition to diesel PM, the TACs for which data are available that pose the greatest existing ambient risk in California are benzene, 1,3-butadiene, acetaldehyde, carbon tetrachloride, hexavalent chromium, para-dichlorobenzene, formaldehyde, methylene chloride, and perchloroethylene.

Diesel PM poses the greatest health risk among these 10 TACs mentioned. Based on receptor modeling techniques, CARB estimated its health risk to be 360 excess cancer cases per million people in the SVAB in the year 2000 (CARB 2009:5-83). Overall, statewide emissions of diesel PM are forecasted to decline by 71 percent between 2000 and 2035 (CARB 2009:3-8).

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). The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can 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 perfectly 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.

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, composting facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting operations, rendering plants, and food packaging plants (SMAQMD 2018). None of these odorous land uses lie within two miles of the project site.

SENSITIVE RECEPTORS

Sensitive receptors are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, such as children or the elderly. Residential dwellings, schools, hospitals, playgrounds, and similar facilities are of primary concern because of the presence of individuals particularly sensitive to pollutants and/or the potential for increased and prolonged exposure of individuals to pollutants.

The closest sensitive receptors include the Forever Young Child Care Center, approximately 950 feet to the southeast; Rainbow Day Care Center, approximately 1,000 feet to the southwest; the Lewis Apartments, approximately 100 feet to the south; the Thayer Apartments, approximately 500 feet to the southeast; Park Place Senior Living, approximately 600 feet to the southeast; and residences along 12th Street and Carriage Path, located approximately 1,200 feet to the south.

4.5.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Regional and local criteria air pollutant emissions and associated impacts, as well as impacts from TACs, CO concentrations, and odors were assessed in accordance with SMAQMD-recommended methodologies. The project's emissions are compared to SMAQMD-adopted thresholds.

Construction and operational emissions of criteria air pollutants and precursors were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 computer program, as recommended by SMAQMD. Modeling was based on project-specific information (e.g., building square footage, area to be graded, estimated hauling trips) where available; reasonable assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Construction is estimated to begin in 2020 and be completed in approximately five years. The visitor/welcome center would be constructed from roughly mid-2020 to late 2021, the existing Annex is anticipated to be demolished from early 2022 to late 2022, the new Annex would be constructed from late 2022 to late 2025, and the underground parking facility is anticipated to be constructed from early 2024 to mid-2025. These project components were modeled separately based on the staggered schedule. Emission rates for on-road vehicle and off-road equipment used in the model were based on the year in which construction is anticipated to occur.

Operational emissions were estimated in CalEEMod using the net change in building size from the existing Annex to the new Annex, visitor/welcome center, and underground parking facility in 2026, the first year in which all project components are anticipated to be fully operational. There is no anticipated increase in VMT because the new Annex would be occupied by approximately the same number of elected officials and staff as the existing Annex. Operational activities associated with project implementation would not result in additional vehicle trips as discussed in Section 4.3, "Transportation and Circulation." Thus, mobile-source air pollutant emissions were not calculated in this analysis. Specific model assumptions and inputs for these calculations can be found in Appendix D.

Health risks from exposure to construction- and operation-related TAC emissions were assessed qualitatively. A construction-related TAC exposure assessment was based on the proximity of TAC-generating construction activity to off-site sensitive receptors, the number and types of diesel-powered construction equipment to be used, and the duration of potential TAC exposure. An operational-related TAC exposure assessment was based on any new TAC-generating sources in proximity to off-site receptors.

Impacts related to odors were also assessed qualitatively, based on proposed construction activities, equipment types and duration of use, overall construction schedule, and distance to nearby sensitive receptors. To evaluate an odor impact, SMAQMD recommends the lead agency consider all available pertinent information, including the nature of the odor source, buffer zone, meteorology, and odor complaint history (SMAQMD 2018:7-3 and 7-4).

THRESHOLDS OF SIGNIFICANCE

The significance criteria used to evaluate project impacts on air quality under CEQA are based on Appendix G of the State CEQA Guidelines and thresholds of significance adopted by SMAQMD. SMAQMD's air quality thresholds of significance are tied to achieving or maintaining attainment designations with the NAAQS and CAAQS, which are scientifically substantiated, numerical concentrations of criteria air pollutants considered to be protective of human health. Implementing the project would have a significant impact related to air quality such that human health would be adversely affected if it would:

- ▶ cause construction-generated criteria air pollutant or precursor emissions to exceed the SMAQMD - recommended thresholds of 85 lb/day for NO_x, 80 lb/day or 14.6 tons/year for PM₁₀, and 82 lb/day or 15 tons/year for PM_{2.5} (SMAQMD 2015);
- ▶ result in a net increase in long-term operational criteria air pollutant or precursor emissions that exceed the SMAQMD-recommended thresholds of 65 lb/day for ROG and NO_x, 80 lb/day and 14.6 tons/year for PM₁₀, and 82 lb/day or 15 tons/year for PM_{2.5} (SMAQMD 2015);
- ▶ result in long-term operational local mobile-source CO emissions that would violate or contribute substantially to concentrations that exceed the 1-hour CAAQS of 20 parts per million (ppm) or the 8-hour CAAQS of 9 ppm (SMAQMD 2015);
- ▶ expose sensitive receptors to a substantial incremental increase in TAC emissions that exceed 10 in one million for carcinogenic risk (i.e., the risk of contracting cancer) and/or a noncarcinogenic hazard index of 1.0 or greater at any off-site receptor (SMAQMD 2015); or
- ▶ result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

ISSUES NOT DISCUSSED FURTHER

Regarding the potential for CO "hot spots" at local intersections, these types of effects only occur at intersections experiencing extremely high volumes of traffic. Operational activities associated with project implementation would not result in additional vehicle trips, or associated increases in intersection volumes, as discussed in Section 4.3, "Transportation and Circulation." Existing traffic conditions would not be appreciably altered by the project relative to the potential to increase local intersection vehicle emissions and no impacts from local CO "hot spots" would occur. This issue is not discussed further in this EIR.

Construction-related activities would not introduce new odor sources. Although minor odors may be generated from the use of heavy-duty diesel trucks during the hauling of material to and from the project site, the activities would be intermittent and temporary and would not affect sensitive receptors. Operation of the new Annex would be similar to the existing Annex uses and would not generate objectionable odors or result in any new or additional odor sources. Therefore, the project's potential to expose a substantial number of people to objectionable odors from both construction and operation is not discussed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.5-1: Generate Construction-Related Emissions of Criteria Air pollutants and Precursors

Construction of the project would result in emissions of ROG, NO_x, PM₁₀, and PM_{2.5} from demolition, excavation, material and equipment delivery trips, off-road heavy-duty equipment, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Construction activities would not result in emissions of ROG, NO_x, PM₁₀, and PM_{2.5} that would exceed SMAQMD-recommended thresholds. Therefore, construction-generated emissions of criteria air pollutants or precursors would not contribute substantially to the nonattainment status of the SVAB for ozone with respect to the CAAQS and NAAQS, PM₁₀ with respect to the CAAQS, and PM_{2.5} with respect to the NAAQS. This impact would be **less than significant**.

Construction-related activities would generate emissions of ROG, NO_x, PM₁₀, and PM_{2.5} associated with demolition, excavation, off-road heavy-duty equipment, material delivery, worker commute trips, and other miscellaneous activities (e.g., application of architectural coatings). Fugitive dust emissions of PM₁₀ and PM_{2.5} would be associated primarily with demolition and excavation and vary as a function of soil silt content, soil moisture, wind speed, and acreage of disturbance. PM₁₀ and PM_{2.5} are also contained in exhaust from off-road equipment and on-road vehicles. Emissions of ozone precursors, ROG and NO_x, would be associated primarily with construction equipment and on-road vehicle exhaust. The application of architectural coatings results in off-gas emissions of ROG.

Construction of the visitor/welcome center would begin in 2020. Construction of the entire project would take approximately five years and is scheduled to be completed by the end of 2025, with the legislature and executive branch projected to occupy the new Annex by the end of 2025. Following construction of the visitor/welcome center, the existing Annex would be demolished, and the new Annex constructed, with the underground parking structure constructed within the same timeframe as the Annex. For specific construction assumptions and modeling inputs, refer to Appendix D.

Table 4.5-4 summarizes the modeled maximum daily emissions from construction activities over the estimated 5-year construction period by project component. As shown in Table 4.5-4, daily emissions of ROG, NO_x, PM₁₀, and PM_{2.5} and annual emissions PM₁₀ and PM_{2.5} would not exceed the respective thresholds. Even when construction would overlap between the new Annex and the underground parking facility, the maximum daily emissions would not exceed SMAQMD-recommended thresholds for any criteria air pollutant or precursor.

Table 4.5-4 Summary of Maximum Emissions of Criteria Air Pollutants and Precursors Associated with Project Construction

Project Component	ROG lb/day	NO _x lb/day	PM ₁₀ lb/day (fugitive/exhaust/total)	PM ₁₀ tons/year (fugitive/exhaust/total)	PM _{2.5} lb/day (fugitive/exhaust/total)	PM _{2.5} tons/year (fugitive/exhaust/total)
Visitor/Welcome Center	74	28	18/<1/19	0.1/<0.1/0.1	3/<1/3	<0.1/<0.1/<0.1
Annex Demolition	5	46	18/2/20	0.8/0.2/1.0	10/<1/11	0.2/0.2/0.4
Annex Construction	123	36	7/1/9	0.5/0.2/0.7	3/1/5	0.2/0.1/0.3
Underground Parking	2	17	6/<1/6	0.2/<0.1/0.2	3/<1/3	<0.1/<0.1/0.1
SMAQMD Threshold of Significance	None	85	-/-/80	-/-/14.6	-/-/82	-/-/15

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Total values may not sum exactly due to rounding. See Appendix D for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

SMAQMD's project-level thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. If the project does not exceed SMAQMD's thresholds and does not contribute to nonattainment designations, it would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2019). Furthermore, the lack of exposure of criteria air pollutants that may exceed the NAAQS and CAAQS would avoid health impacts. Because the project's construction-generated emissions of criteria air pollutants and precursors would not exceed SMAQMD's recommended thresholds, they would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors are not anticipated due to the project's emissions being below SMAQMD's thresholds. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.5-2: Create Long-Term Operational Emissions of Criteria Air Pollutants and Precursors

Project operations would result in emissions of ROG from reapplication of architectural coatings to maintain the building. However, the project would not result in long-term operational emissions of ROG, NO_x, PM₁₀, or PM_{2.5} that exceed SMAQMD's thresholds of significance (65 lb/day for ROG, 65 lb/day for NO_x, 80 lb/day for PM₁₀, and 82 lb/day for PM_{2.5}). Therefore, operational emissions would not conflict with air quality planning efforts or contribute substantially to the nonattainment status of the SVAB with respect to the CAAQS for ozone and PM₁₀ and with respect to the NAAQS for ozone and PM_{2.5}. This impact would be **less than significant**.

Project operations would result in the generation of long-term operational emissions of ROG from reapplication of architectural coatings to maintain the building. The new Annex would have no direct use of natural gas, and the project's electricity-generated emissions would be offset by 100 percent off-site renewable energy sources. Therefore, there would effectively be no energy-related emissions associated with the project. There would be no indirect emissions related to services provided by the Central Plant because the Central Plant would no longer be used for building heating. Chilled water from the Central Plant would continue to be delivered to the new Annex and visitor/welcome center for cooling; however, the chillers are powered by electricity delivered under the State's contract with SMUD resulting in use of 100 percent renewable energy (see Chapter 3, "Project Description" for more information on the State's contract with SMUD and the Central Plant). There would be no increase in vehicle miles traveled because there is no anticipated increase in employees, vendors, or visitors and thus there would be no mobile-source emissions of criteria air pollutants or ozone precursors. The project also consists of the replacement of one building with a new building and facilities service similar functions. Although the overall square footage of structures and facilities would be greater than the existing Annex, resulting in a difference from existing conditions, new facilities would incorporate energy efficiency measures and modern building standards not included in the existing Annex.

Operational sources of emissions would include landscape maintenance equipment such as mowers and leaf blowers; an emergency backup generator; application of architectural coatings as part of regular maintenance; and the use of various consumer products such as cleaning supplies that would generate emissions of ROG. Installation of an emergency backup generator would require periodic testing and would only be used in the event of an emergency. According to SMAQMD's Rule 201, the project would be required to obtain an Authority to Construct permit and a Permit to Operate before installing the new generator to ensure that SMAQMD's regulations are met. All of these sources of operational emissions currently exist at the Annex. The emergency generator that would be included as part of the new Annex would likely be more energy efficient because it is newer and thus would result in reduced air pollutant emissions when compared with the existing emergency generator. Landscaping maintenance equipment is used for Capitol Park, where the project is located, and equipment use would not increase from project implementation. The use of consumer products such as cleaning supplies would also not increase substantially because there would be no increase in employees or visitor, which the amount of consumer product is partially based, although an increase in square footage may result in a commensurate increase in use of some cleaning supplies. The primary increase in air emissions would be associated with building maintenance and reapplication of architectural coatings based on the net increase in building size. This amount of emissions is summarized in Table 4.5-5 and would not exceed SMAQMD's thresholds.

Table 4.5-5 Summary of Maximum Emissions of Criteria Air Pollutants and Precursors Associated with Project Operation (2026)

Project Component	ROG lb/day	NO _x lb/day	PM ₁₀ lb/day	PM ₁₀ tons/year	PM _{2.5} lb/day	PM _{2.5} tons/year
Entire Project	6	0	<1	<1	<1	<1
SMAQMD Threshold of Significance	65	65	80	14.6	82	15

Notes: ROG = reactive organic gases; lb/day = pounds per day; NO_x = oxides of nitrogen; PM₁₀ = respirable particulate matter with aerodynamic diameter of 10 micrometers or less; PM_{2.5} = fine particulate matter with aerodynamic diameter of 2.5 micrometers or less; SMAQMD = Sacramento Metropolitan Air Quality Management District.

Total values may not sum exactly due to rounding. See Appendix D for detailed input parameters and modeling results.

Source: Modeling performed by Ascent Environmental in 2019

SMAQMD's project thresholds are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. If the project does not exceed SMAQMD's thresholds and does not contribute to nonattainment designations, it would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2019). Furthermore, the lack of exposure of criteria air pollutants that may exceed the NAAQS and CAAQS would avoid health impacts. Because the project's operational emissions would be below SMAQMD's recommended thresholds, they would not violate any air quality standard or contribute substantially to an existing or project air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors are not anticipated to due to the project's emissions being below SMAQMD's thresholds. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.5-3: Exposure of Sensitive Receptors to TACs

Construction- and operation-related emissions of TACs associated with implementation of the project would not result in an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0 at existing or future sensitive receptors. Therefore, this impact would be **less than significant**.

Particulate exhaust emissions from diesel-fueled engines (i.e., diesel PM) were identified as a TAC by CARB in 1998. The potential cancer risk from the inhalation of diesel PM, as discussed above in Section 4.5.2, "Environmental Setting," outweighs the potential for all other health impacts (i.e., non-cancer chronic risk, short-term acute risk) and health impacts from other TACs (CARB 2003:K-1). With regards to exposure of diesel PM, the dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Dose is positively correlated with time, meaning that a longer exposure period would result in a higher level of health risk for any exposed receptor. Thus, the risks estimated for an exposed individual are higher if a fixed exposure occurs over a longer period. According to the Office of Environmental Health Hazard Assessment, when a Health Risk Assessment is prepared to project the results of exposure of sensitive receptors to selected compounds, exposure of sensitive receptors to TAC emissions should be based on a 70- or 30-year exposure period; however, such assessments should be limited to the duration of activities associated with the proposed project if emissions occur for shorter periods (OEHHA 2015:5-23, 5-24).

The TAC that is the focus of this analysis is diesel PM because it is known that diesel PM would be emitted during project construction and operation. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the project site would not include any industrial sources of other TACs. Operation of the new Annex would not result in new sources of TACs, therefore, operation of the project would have no impact. Construction-related activities that would result in temporary, intermittent emissions of diesel PM would be from the exhaust of off-road equipment used during demolition and construction of all project components and the use of heavy-duty haul trucks. On-road diesel-powered haul trucks traveling to and from the construction area to deliver materials and equipment or remove excavated soil are less of a concern because they do not operate at any one location for extended periods of time such that they would expose a single receptor to excessive diesel PM emissions. This analysis focuses primarily on heavy-duty construction equipment used onsite that may affect nearby offsite existing land uses.

There are several sensitive receptors near the project site. These include residences and childcare facilities. Residences are as close as 500 feet from the project site. Construction activities would begin in 2020, starting with construction of the visitor/welcome center, followed by demolition of the existing Annex, then construction of the new Annex and underground parking structure. Construction of the project would include activities such as demolition, site preparation, excavation, grading, building, paving, and architectural coating application. Construction is scheduled to be complete by the end of 2025, resulting in construction occurring over five years. Relative to the 30-year and 70-year exposure periods suggested for conducting a health risk assessment, construction-generated emissions of diesel PM would be

short-term and intermittent and would not occur for an extended period of time. In addition, diesel PM dispersed rapidly in the air. Diesel PM concentrations fall rapidly over relatively short distances from the emissions source. The potential diesel PM exposure at sensitive receptors in the vicinity of the project site would be far less than at the source of the emissions.

As noted above, diesel PM is the primary pollutant of concern for this analysis. Based on the construction-related emissions modeling conducted and presented in Table 4.5-4 above, maximum daily emissions of diesel exhaust PM₁₀, considered a surrogate for diesel PM, would not exceed 2 lb/day during the Annex demolition phase and 1 lb/day during the Annex building phase, which are considered the most intensive and would last for approximately 239 and 804 days, respectively. This is well below the SMAQMD-recommended threshold of 80 lb/day. In addition, it is anticipated that all construction activities would occur during daytime hours (although some limited exceptions may occur, such as if an extended continuous concrete pour is required), which is when many residents who are employed or are students typically are not home, thus limiting exposure from construction-related emissions to these receptors.

Therefore, considering the relatively low mass of diesel PM emissions that would be generated by construction activity on the project site, the relatively short duration of diesel PM-emitting construction activity at the project site, and the highly dispersive properties of diesel PM, construction-related TAC emissions would not expose off-site sensitive receptors to an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.6 GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

This section presents a summary of the current state of climate change science and greenhouse gas (GHG) emissions sources in California; a summary of applicable regulations; quantification of GHG emissions generated by the Capitol Annex Project and discussion about their potential contribution to global climate change.

For the purposes of this analysis, GHG emissions are measured as metric tons of carbon dioxide equivalent (MTCO₂e). The atmospheric impact of a GHG is based on the global warming potential (GWP) of that gas. GWP is a measure of the heat trapping ability of one unit of a gas over a certain timeframe relative to one unit of carbon dioxide (CO₂). The GWP of CO₂ is one (EPA 2014).

4.6.1 Regulatory Setting

FEDERAL

In *Massachusetts et al. v. Environmental Protection Agency et al.*, 549 U.S. 497 (2007), the Supreme Court of the United States ruled that CO₂ is an air pollutant as defined under the federal Clean Air Act and that the U.S. Environmental Protection Agency (EPA) has the authority to regulate GHG emissions. In 2010, EPA started to address GHG emissions from stationary sources through its New Source Review permitting program, including operating permits for “major sources” issued under Title V of the federal Clean Air Act.

In October 2012, EPA and the National Highway Traffic Safety Administration, on behalf of the U.S. Department of Transportation, issued final rules to further reduce GHG emissions and improve corporate average fuel economy standards for light-duty vehicles for model years 2017 and beyond (77 FR 62624). These rules would increase fuel economy to the equivalent of 54.5 miles per gallon, limiting vehicle emissions to 163 grams of CO₂ per mile for the fleet of cars and light-duty trucks by model year 2025 (77 FR 62630). However, on April 2, 2018, the EPA Administrator announced a final determination that the current standards are not appropriate and should be revised. It is not yet known what revisions will be adopted or when they will be implemented (EPA 2018).

In June 2019, the EPA, under authority of the Clean Air Act section 111(d), issued the Affordable Clean Energy rule which provides guidance to states on establishing emissions performance standards for coal-fired electric generating units (EGUs). Under this rule, states are required to submit plans to the EPA which demonstrate the use of specifically listed retrofit technologies and operating practices to achieve CO₂ emission reductions through heat rate improvement (HRI). HRI is a measurement of power plant efficiency that EPA determined as part of this rulemaking to be the best system of emission reductions for CO₂ generated from coal-fired EGUs (EPA 2019).

STATE

Statewide GHG Emission Targets and Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades (State of California 2018). GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (AB 32 of 2006) and reducing them to 40 percent below 1990 levels by 2030 (SB 32 of 2016). Executive Order S-3-05 calls for statewide GHG emissions to be reduced to 80 percent below 1990 levels by 2050. Executive Order B-55-18 calls for California to achieve carbon neutrality by 2045 and achieve and maintain net negative GHG emissions thereafter. These targets are in line with the scientifically established levels needed in the U.S. to limit the rise in global temperature to no more than 2 degrees Celsius, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected; these targets also pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius (United Nations 2015:3).

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by the California Air Resources Board (CARB), outlines the main strategies California will implement to achieve the legislated GHG emission target for 2030

and “substantially advance toward our 2050 climate goals” (CARB 2017: 1, 3, 5, 25–26). It identifies the reductions needed by each GHG emission sector (e.g., transportation, industry, electricity generation, agriculture, commercial and residential, pollutants with high global warming potential, and recycling and waste). CARB and other State agencies are currently developing a National and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal of Executive Order B-55-18.

The State has also passed more detailed legislation addressing GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Cap-and-Trade Program

CARB administers the State’s Cap-and-Trade program, which covers GHG emissions source that emit more than 25,000 metric tons of carbon dioxide equivalent (MTCO_{2e}), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Transportation-Related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emission standards and fuel efficiency standards for fossil fuel-powered on-road vehicles. In addition, the program’s zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to account for up to 15 percent of California’s new vehicle sales by 2025 (CARB 2016a:15). When the rules are fully implemented by 2025, GHG emissions from the statewide fleet of new cars and light-duty trucks will be reduced by 34 percent and cars will emit 75 percent less smog-forming pollution than the statewide fleet in 2016 (CARB 2016b:1).

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, as well as 200 hydrogen fueling stations and 250,000 electric vehicle-charging stations installed by 2025. It specifies that 10,000 of these charging stations must be direct-current fast chargers.

CARB adopted the Low Carbon Fuel Standard (LCFS) in 2007 to reduce the carbon intensity of California’s transportation fuels. The LCFS applies to fuels used by on-road motor vehicles and off-road vehicles, including construction equipment (Wade, pers. comm., 2017).

In addition to regulations that address tailpipe emissions and transportation fuels, the state legislature has passed regulations to address the amount of driving by on-road vehicles. Since passage of SB 375 in 2008, CARB requires metropolitan planning organizations (MPOs) to adopt plans showing reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035 (CARB 2018a:1). These plans link land use and housing allocation to transportation planning and related mobile-source emissions. The Sacramento Area Council of Governments (SACOG) serves as the MPO for Sacramento, Placer, El Dorado, Yuba, Sutter, and Yolo Counties, excluding those lands located in the Lake Tahoe Basin. SACOG adopted its Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) 2035 in 2012, and completed an update adopted in February 2016. SACOG was tasked by CARB to achieve a 7 percent per capita reduction compared to 2012 emissions by 2020 and a 16 percent per capita reduction by 2035, which CARB confirmed the region would achieve by implementing its MTP/SCS (CARB 2013). In March 2018, CARB adopted the Target Update for the SB 375 targets, tasking SACOG to achieve a 7 percent and a 19 percent per capita reduction by 2020 and 2035, respectively (CARB 2018a).

SB 743 of 2013 required that the Governor’s Office of Planning and Research (OPR) propose changes to the State CEQA Guidelines to address transportation impacts in transit priority areas and other areas of the state. In response, Section 15064.3 was added to CEQA in December 2018, requiring that transportation impacts no longer consider congestion but instead focus on the impacts of vehicle miles traveled (VMT). Agencies have until July 1, 2020 to implement these changes, but can also choose to implement these changes immediately. In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the transportation impact of a project be based on whether the project would generate a level of VMT per capita (or VMT per employee or some other metric) that is 15 percent lower than that of existing development in the region (OPR 2017:12–13), or that a different threshold is used based on substantial evidence. OPR’s technical advisory

explains that this criterion is consistent with PRC Section 21099, which states that the criteria for determining significance must “promote the reduction in greenhouse gas emission” (OPR 2017:18). This metric is intended to replace the use of delay and level of service to measure transportation-related impacts. More detail about SB 743 is provided in the “Regulatory Setting” section of Section 4.3, “Transportation and Circulation.”

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewables to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011); 52 percent by 2027 (SB 100 of 2018); 60 percent by 2030 (also SB 100 of 2018); and 100 percent by 2045 (also SB 100 of 2018).

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the State’s CCR Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every three years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions. The current California Energy code will require builders to use more energy-efficient building technologies for compliance with increased restrictions on allowable energy use. The CEC estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those designed to meet the 2016 standards, primarily through the transition to high-efficacy lighting (CEC 2018).

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of in landfills, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to State agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally-safe transformation and land disposal. Per capita disposal rates for the City of Sacramento are below the target disposal rates established by AB 939 (CalRecycle 2019).

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. The resulting Mandatory Commercial Recycling Regulation (2012) requires that on and after July 1, 2012, certain businesses that generate four cubic yards or more of commercial solid waste per week shall arrange recycling services. To comply with this requirement, businesses may either separate recyclables and self-haul them or subscribe to a recycling service that includes mixed waste processing. AB 341 also established a statewide recycling goal of 75 percent; the 50 percent disposal reduction mandate still applies for cities and counties under AB 939, the Integrated Waste Management Act.

Executive Order B-18-12

In April 2012, Executive Order (EO) B-18-12 was signed into law and requires State agencies to implement green building practices to improve energy, water, and materials efficiency, improve air quality and working conditions for State employees, reduce costs to the State and reduce environmental impacts from State operations. Among other actions, EO B-18-12 requires State agencies to reduce agency-wide water use by 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline. The EO directs that new State buildings larger than 10,000 square feet use clean, on-site power generation and obtain the U.S. Green Building Council’s Leadership in Energy and Environmental (LEED) Silver certification. Further, EO B-18-12 states that all new State buildings beginning design after 2025 be constructed as Zero Net Energy (ZNE) facilities, with an interim target of 50 percent of new facilities beginning design after 2020 to be ZNE. The EO also calls for State agencies to identify and pursue opportunities to provide electric vehicle charging stations at employee parking facilities in new buildings.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

Sacramento Metropolitan Air Quality Management District

The Sacramento Metropolitan Air Quality Management District (SMAQMD) is the primary agency responsible for addressing air quality concerns in all of Sacramento County—its role is discussed further in Section 4.5, "Air Quality." SMAQMD also recommends methods for analyzing project-generated GHGs in CEQA analyses and offers multiple potential GHG reduction measures for land use development projects. SMAQMD developed thresholds of significance to provide a uniform scale to measure the significance of GHG emissions from land use and stationary source projects in compliance with CEQA (SMAQMD 2018). SMAQMD's goals in developing GHG thresholds include ease of implementation; use of standard analysis tools; and emissions mitigation consistent with the statewide GHG targets mandated by AB 32 of 2006. However, since the establishment of new statewide GHG target of 40 percent below 1990 levels by 2030 with passage of SB 32 in 2016, SMAQMD has not developed new thresholds that align with this statewide GHG target.

City of Sacramento

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies related to reducing GHG emissions in Sacramento (City of Sacramento 2015).

- ▶ **Policy ER 6.1.5:** The City shall reduce community GHG emissions by 15 percent below 2005 baseline levels by 2020, and strive to reduce community emissions by 49 percent and 83 percent by 2035 and 2050, respectively.
- ▶ **Policy ER 6.1.7:** The City shall reduce GHG 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 job/housing ratio in each community; and other methods of reducing emissions.

Sacramento Climate Action Plan

The Sacramento Climate Action Plan (CAP) was adopted on February 14, 2012 by the Sacramento City Council and was incorporated into the 2035 General Plan (City of Sacramento 2012). The CAP includes GHG emission targets, strategies, and implementation measures to help the city reach these targets. Reduction strategies address GHG emissions associated with transportation and land use; energy consumption; water use; waste management and recycling; agriculture; and open space. The City's goals related to transportation and energy use are described below.

- ▶ Improve accessibility and system connectivity by removing physical and operational barriers to safe travel.
- ▶ Reduce reliance on the private automobile.
- ▶ Use emerging transportation technologies and services to increase transportation system efficiency.
- ▶ Design, construct, and maintain a universally accessible, safe, convenient, integrated and well-connected pedestrian system that promotes walking.

- ▶ Create and maintain a safe, comprehensive, and integrated transit system as an essential component of a multimodal transportation system.
- ▶ Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicle (SOV) trips, vehicle miles traveled and GHG emissions.
- ▶ The City and other agencies with jurisdiction over roadways within City limits shall plan, design, operate and maintain all streets and roadways to accommodate and promote safe and convenient travel for all users—pedestrians, bicyclists, transit riders, and persons of all abilities, as well as freight and motor vehicle drivers.
- ▶ Enhance the quality of life within existing neighborhoods through the use of neighborhood traffic management and traffic calming techniques, while recognizing the City’s desire to provide a grid system that creates a high level of connectivity.
- ▶ Maintain an interconnected system of streets that allows travel on multiple routes by multiple modes, balancing access, mobility and place-making functions with sensitivity to the existing and planned land use context of each corridor and major street segment.
- ▶ Create and maintain a safe, comprehensive, and integrated bicycle system and set of support facilities throughout the city that encourage bicycling that is accessible to all. Provide bicycle facilities, programs and services and implement other transportation and land use policies as necessary to achieve the City’s bicycle mode share goal as documented in the Bicycle Master Plan.
- ▶ Provide and manage parking such that it balances the citywide goal of economic development, livable neighborhoods, sustainability, and public safety with the compact multi-modal urban environment prescribed by the General Plan.

Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

4.6.2 Environmental Setting

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

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 atmosphere from space. A portion of the radiation is absorbed by the earth’s surface, and a smaller portion of this radiation is reflected toward space. The 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.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Human-caused emissions of these GHGs in excess of natural ambient concentrations are found to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth’s climate, known as global climate change or global warming. It is “extremely likely” that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in GHG concentrations and other anthropogenic forcing (IPCC 2014:5).

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 most pollutants with localized air quality effects have relatively short atmospheric lifetimes (approximately 1 day), GHGs have long atmospheric lifetimes (1 year

to several thousand years). GHGs persist in the atmosphere long enough to be dispersed around the globe. Although the lifetime of any GHG molecule depends on multiple variables and cannot be determined with any certainty, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, and other forms of sequestration. Of the total annual human-caused CO₂ emissions, approximately 55 percent are estimated to be sequestered through ocean and land uptake every year, averaged over the last 50 years, whereas the remaining 45 percent of human-caused CO₂ emissions remain stored in the atmosphere (IPCC 2013:467).

The quantity of GHGs in the atmosphere responsible for climate change is not precisely known, but it is enormous. No single project alone would measurably contribute to an incremental change in the global average temperature or to global or local climates or microclimates. From the standpoint of CEQA, GHG impacts relative to global climate change are inherently cumulative.

GREENHOUSE GAS EMISSION SOURCES

As discussed previously, GHG emissions are attributable in large part to human activities. The total GHG inventory for California in 2016 was 429 million metric tons of carbon dioxide equivalent (MMTCO₂e) (CARB 2018b). This is less than the 2020 target of 431 MMTCO₂e (CARB 2018c:1). Table 4.6-1 summarizes the statewide GHG inventory for California.

Table 4.6-1 Statewide GHG Emissions by Economic Sector

Sector	Percent
Transportation	41
Industrial	23
Electricity generation (in state)	10
Electricity generation (imports)	6
Agriculture	8
Residential	7
Commercial	5
Not specified	<1

Source: CARB 2018b

As shown in Table 4.6-1, transportation, industry, and electricity generation are the largest GHG emission sectors.

Emissions of CO₂ are byproducts of fossil fuel combustion. Methane, a highly potent GHG, primarily 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. Nitrous oxide is also largely attributable to agricultural practices and soil management. CO₂ sinks, or reservoirs, include vegetation and the ocean, which absorb CO₂ through sequestration and dissolution (CO₂ dissolving into the water), respectively, two of the most common processes for removing CO₂ from the atmosphere.

A GHG inventory for the City of Sacramento for 2005 is provided in the City's CAP and summarized in Table 4.6-2, as well as projections for future emissions if a "business-as-usual" approach is taken and no additional emission reduction measures are implemented..

Table 4.6-2 City of Sacramento Greenhouse Gas Emissions Inventory for 2005 and Business-as-Usual Forecast Years (MTCO₂e)

Emissions Sector	2005	2020	2030	2040
Residential Energy Use	748,792	993,900	1,157,307	1,484,125
Commercial/Industrial Energy Use	979,777	1,243,593	1,419,470	1,771,224
Industrial Specific	28,656	32,789	35,544	41,054
On-Road Transportation	2,013,962	2,193,916	2,313,886	2,553,825

Emissions Sector	2005	2020	2030	2040
Off-Road Transportation	192,768	244,673	279,276	348,483
Solid Waste	241,862	285,143	313,248	378,605
Water Consumption	12,810	15,757	17,928	21,724
Wastewater Treatment	57,380	70,579	80,306	97,307
Agriculture	2,054	2,087	2,198	2,596
Total	4,443,977	5,286,520	5,851,370	6,980,309

Notes: Totals may not add due to rounding.

MTCO_{2e} = metric tons of carbon dioxide equivalent

Sources: City of Sacramento 2012

As shown in Table 4.6-2, on-road transportation and residential and non-residential energy use are the largest GHG emission sectors for the city.

EFFECTS OF CLIMATE CHANGE ON THE ENVIRONMENT

According to the Intergovernmental Panel on Climate Change, which was established in 1988 by the World Meteorological Organization and the United Nations Environment Programme, global average temperature will increase by 3.7 to 4.8 degrees Celsius (°C) (6.7 to 8.6 degrees Fahrenheit [°F]) by the end of the century unless additional efforts to reduce GHG emissions are made (IPCC 2014:10). According to CEC, temperatures in California will warm by approximately 2.7°F above 2000 averages by 2050 and by 4.1°F to 8.6°F by 2100, depending on emission levels (CEC 2012:2).

Other environmental resources could be indirectly affected by the accumulation of GHG emissions and the resulting rise in global average temperature. In recent years, California has been marked by extreme weather and its effects. According to CNRA's *Safeguarding California Plan: 2018 Update*, California experienced the driest 4-year statewide precipitation on record from 2012 through 2015; the warmest years on average in 2014, 2015, and 2016; and the smallest and second smallest Sierra snowpack on record in 2015 and 2014 (CNRA 2018:55). In contrast, the northern Sierra Nevada experienced its wettest year on record during the 2016-2017 water year (CNRA 2018:64). The changes in precipitation exacerbate wildfires throughout California, increasing their frequency, size, and devastation. As temperatures increase, the amount of precipitation falling as rain rather than snow also increases, which could lead to increased flooding because water that would normally be held in the snowpack of the Sierra Nevada and Cascade Range until spring would flow into the Central Valley during winter rainstorm events. This scenario would place more pressure on California's levee/flood control system (CNRA 2018:190–192). Furthermore, in the extreme scenario involving the rapid loss of the Antarctic ice sheet, the sea level along California's coastline could rise up to 10 feet by 2100, which is approximately 30–40 times faster than the sea-level rise experienced over the last century (CNRA 2017:102). Changes in temperature, precipitation patterns, extreme weather events, wildfires, and sea-level rise have the potential to threaten transportation and energy infrastructure and crop production (CNRA 2018:64, 116–117, 127).

Cal-Adapt is a climate change scenario planning tool developed by CEC that downscales global climate model data to local and regional resolution under two emissions scenarios. The Representative Concentration Pathway (RCP) 8.5 scenario represents a business-as-usual future emissions scenario, and the RCP 4.5 scenario represents a future with reduced GHG emissions. According to Cal-Adapt, annual average temperatures in the project area are projected to rise by 5.6°F to 8.4°F by 2099, with the low and high ends of the range reflecting the lower and higher emissions increase scenarios (CEC 2019).

Sacramento County experienced an annual average high temperature of 74.4°F between 1950 and 2005. Under the RCP 4.5 scenario, the county's annual average high temperature is projected to increase by 2.8°F to 77.2°F by 2050 and increase an additional 2.3°F to 79.7°F by 2099 (CEC 2019). Under the RCP 8.5 scenario, the county's annual average high temperature is projected to increase by 3.1°F to 77.5°F by 2050 and increase an additional 4.3°F to 83°F by 2099 (CEC 2019).

Sacramento County experienced an average precipitation of 19.2 inches per year between 1950 and 2005. Under the RCP 4.5 scenario, the county is projected to experience an increase of 2.5 inches to 21.7 inches per year by 2050 and decrease to 21.0 inches per year by 2099 (CEC 2019). Under the RCP 8.5 scenario, the county is projected to experience an increase of 1.5 inches to 20.7 inches per year by 2050 and increase to 22.7 inches per year by 2099 (CEC 2019).

4.6.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

GHG emissions associated with the project would be generated during project construction and by operation of the new Annex and associated facilities (i.e., visitor/welcome center and underground parking). Estimated levels of construction- and operation-related GHGs are presented below. The project is evaluated for its consistency with adopted regulations, plans, and policies aimed at reducing GHG emissions. These include the 2017 Scoping Plan, Executive Order B-18-12, the California Integrated Waste Management Act, and the City of Sacramento General Plan and Climate Action Plan.

Construction-Related Greenhouse Gas Emissions

Short-term construction-generated GHG emissions were calculated using the California Emissions Estimator Model (CalEEMod) Version 2016.3.2 (CAPCOA 2016), as recommended by SMAQMD and other air districts in California. Modeling was based on project-specific information (e.g., demolition, construction activity, estimated hauling trips, worker trips) where available; assumptions based on typical construction activities; and default values in CalEEMod that are based on the project's location and land use type. Construction of the project could begin in 2020 and end in 2025, when the project would become operational. The visitor/welcome center is scheduled to be constructed from 2020 through 2021, the existing Annex is anticipated to be demolished from early 2022 to late 2022, the new Annex is scheduled to be constructed from late 2022 to late 2025, and the underground parking facility would be constructed from early 2024 to mid-2025. These project components were modeled separately based on the schedule and used emission rates for on-road vehicle and off-road equipment based on the year in which construction is anticipated to occur.

Operational Greenhouse Gas Emissions

Project-related operational emissions of GHGs were estimated in CalEEMod using the net change in building size from the existing Annex to the new Annex, visitor center, and underground parking facility in 2026, the first year in which all project components are anticipated to be fully operational. GHG emissions were estimated for the following sources: area sources (e.g., reapplication of architectural coatings), water use, wastewater generated, and solid waste generated. Project design features such as water-efficient plumbing fixtures and waste diversion rates were accounted for in the emissions estimates.

Indirect emissions associated with electricity consumption were excluded from the project's operational GHG emissions estimate because electricity use would be offset by 100 percent off-site renewable sources through a contract between the State and the Sacramento Municipal Utility District (SMUD). Therefore, both electricity used at the project site, and electricity used at the Central Plant to provide cooling services to the proposed project, would not contribute to GHG emissions (see Chapter 3, "Project Description" for more information on the State's contract with SMUD and the Central Plant). The proposed project would not obtain heating services from the Central Plant (i.e., compressed steam); therefore, indirect emissions from this source would not be attributable to the proposed project. There is no anticipated increase in VMT because the new Annex would be occupied by approximately the same number of elected officials and staff as the existing Annex. Operational activities associated with project implementation would not result in additional vehicle trips as discussed in Section 4.3, "Transportation/Traffic." Thus, mobile source GHG emissions were not estimated in this analysis.

Detailed model assumptions and inputs for these calculations are presented in Appendix D.

THRESHOLDS OF SIGNIFICANCE

The issue of global climate change is inherently a cumulative issue because the GHG emissions of individual projects cannot be shown to have any material effect on global climate. Thus, the project's impact on climate change is addressed only as a cumulative impact.

The significance criteria used to evaluate project impacts on climate change under CEQA are based on Section 15064 of the CEQA statute and relevant portions of Appendix G of the State CEQA Guidelines, which recommend that a lead agency consider a project's consistency with relevant, adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. Implementing the project would result in a cumulatively considerable contribution to climate change if it would:

- ▶ generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- ▶ conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.6-1: Project-Generated GHG Emissions

Project construction is estimated to generate 5,713 MTCO₂e. Operation of the project would result in GHG emissions associated with water consumption and wastewater and solid waste generation. Operation of the project would generate approximately 217 MTCO₂e/year. However, both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local plans, policies, and regulations adopted for the purpose of reducing GHG emissions and enabling achievement of the statewide GHG reduction target of SB 32 of 2016. The project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. Therefore, this impact would be **less than significant**.

Construction-Related GHG Emissions

Construction-related activities would generate GHG emissions from the use of heavy-duty off-road equipment, materials transport, and worker commute. Based on modeling conducted for the project, construction is estimated to generate a total of 5,713 MTCO₂e for the duration of construction activities (2020–2025). Average annual GHG emissions during the five-year construction period are estimated to generate 1,143 MTCO₂e/year. Table 4.6-3 shows the construction emissions associated with each project component. Refer to Appendix D for detailed input parameters and assumptions.

Table 4.6-3 Construction-Generated Greenhouse Gas Emissions

Project Component	Total MTCO ₂ e
Visitor Center	101
Annex Demolition	1,524
Annex Construction	3,570
Underground Parking	518
Total Construction GHG Emissions	5,713
Average Annual GHG Emissions (MTCO₂e/year)	1,143

Notes: Totals may not add due to rounding.

MTCO₂e = metric tons of carbon dioxide equivalent; GHG = greenhouse gas.

See Appendix D for detailed input parameters and modeling results.

Source: Modeled by Ascent Environmental in 2019

Operational GHG Emissions

The new Annex would have no direct or indirect (i.e., Central Plant) use of natural gas and electricity at both the project site and the Central Plant (electricity used to operate chillers to provide chilled water to the project site for cooling) would be offset by renewable sources. Therefore, there would effectively be no energy-related GHG emissions associated with the project's operation. There would be no increase in VMT because there is no anticipated increase in employees, vendors, or visitors and thus there would be no mobile-source GHG emissions.

Other operational sources of GHG emissions that exist at the Annex but would not increase due to the change in building footprint of the new Annex, including landscape maintenance equipment such as mowers and leaf blower and an emergency backup generator. Therefore, operation of the project would result in area-source emissions from water-related emissions from conveyance, pumping and treatment of water; wastewater-related emissions; and waste-related emissions from the visitor/welcome center and net change in building size of the new Annex. Table 4.6-4 shows the estimated annual GHG emissions, totaling 217 MTCO_{2e}/year, that would be generated by project operations.

Table 4.6-4 Operational Greenhouse Gas Emissions

Emissions Sector	Annual MTCO _{2e}
Solid Waste Generation	111
Water Consumption and Wastewater Treatment	106
Area Sources	<1
Total Operational GHG Emissions	217

Notes: Totals may not add due to rounding.

MTCO_{2e} = metric tons of carbon dioxide equivalent.

See Appendix D for detailed input parameters and modeling results.

Source: Modeled by Ascent Environmental in 2019

Consistency with Applicable Plans, Policies, and Regulations for the Purpose of Reducing Greenhouse Gas Emissions

Consistency with the 2017 Scoping Plan

Consistency with the emissions target provided by SB 32 would also result in consistency with the emissions target provided by AB 32 of 2006, which is less stringent. The 2017 Scoping Plan lays out the framework for achieving the 2030 statewide GHG reduction target of 40 percent below 1990 levels and progress toward additional reductions. Appendix C of the 2017 Scoping Plan includes detailed GHG reduction measures and local actions that land use development projects and municipalities can implement to support the statewide target. For project-level CEQA analyses, the 2017 Scoping Plan states that projects should implement feasible mitigation, preferably measures that can be implemented on site. The project would include GHG-reducing features that would be consistent with the measures listed in Appendix C of the 2017 Scoping Plan, as detailed below.

The project would achieve or exceed LEED version 4 (v4) Silver certification (v4 is the current version of the certification standards), which reduces building energy and water consumption, resulting in a decrease in indirect GHG emissions. The building would have no direct use of natural gas; it would depend only on electricity. Further, the building's electricity would be provided by 100 percent renewable sources through a contract with SMUD. Other anticipated energy-efficient design features include light-emitting diode lighting and EnergyStar® -certified office equipment.

The project would also feature transportation-related emission reduction measures that are listed as local actions in the 2017 Scoping Plan. These include access to transit service (both light-rail and bus) and limited onsite parking. The project would also include water efficiency measures, which would decrease indirect GHG emissions associated with the treatment, conveyance, and distribution of water through measures including low-flow fixtures and drought-tolerant landscaping.

Consistency with Executive Order B-18-12

Executive Order B-18-12 requires State agencies to implement green building practices to improve energy, water, and materials efficiency. The Executive Order applied to both renovated and new State buildings with a floor area greater than 10,000 square feet and specifies that building must use clean, on-site power generation. The new Annex would have a building area of approximately 525,000 square feet with a 40,000 square foot visitor center and an underground parking facility with an evaluated capacity of up to 200 spaces. The project would be consistent with Executive Order B-18-12 through achieving or exceeding LEED v4 Silver, purchasing 100 percent renewable electricity, installing water-efficient fixtures, and installing EV charging stations.

Consistency with the California Integrated Waste Management Act

The project would achieve a waste diversion rate of at least 50 percent, which is required for all State agencies, thereby reducing the level of GHGs associated with solid waste generation.

Consistency with Greenhouse Gas Policies in the City of Sacramento General Plan and Climate Action Plan

The City of Sacramento General Plan includes a policy that aims to reduce GHG emissions through “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 job/housing ratio in each community; and other methods of reducing emissions” (City of Sacramento 2015). The Sacramento Climate Action Plan, which is incorporated into the City’s General Plan, includes strategies to address GHG emissions associated with transportation and land use, energy consumption, water use, solid waste management and recycling, agriculture, and open space. The project aligns with these plans because of its downtown location (preventing sprawl), its use of an existing space, and its proximity to multiple modes of public transit (e.g., light-rail, bus). The project features energy-efficient design through achieving or exceeding LEED v4 Silver and installing low-flow water fixtures. As is required by State agencies, a waste diversion rate of at least 50 percent would be achieved.

Summary

Project construction would generate approximately 1,143 MTCO₂e/year. Operation of the project would generate approximately 217 MTCO₂e/year. Both construction and operation of the building would include GHG efficiency measures consistent with all applicable state and local policies and regulation for reducing GHG emissions and enabling achievement of the statewide GHG target of SB 32 of 2016. Thus, the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment because it does not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.7 ENERGY

This section evaluates whether implementing the Capitol Annex Project would result in the inefficient, wasteful, or unnecessary consumption of energy. The capacity of existing and proposed infrastructure to serve the project is evaluated in Section 4.4, "Utilities and Service Systems."

4.7.1 Regulatory Setting

Energy conservation is embodied in many federal, State, and local statutes and policies. At the federal level, energy standards apply to numerous products (e.g., the U.S. Environmental Protection Agency's [EPA's] EnergyStar™ program) and transportation (e.g., fuel efficiency standards). At the state level, 24 CCR sets forth energy standards for buildings. Further, the State provides rebates and tax credits for installing renewable energy systems, and its Flex Your Power program promotes conservation in multiple areas. At the local level, individual cities and counties establish policies in their general plans and climate action plans related to the energy efficiency of new development and land use planning and related to the use of renewable energy sources.

FEDERAL

Energy Policy and Conservation Act and CAFE Standards

The Energy Policy and Conservation Act of 1975 established nationwide fuel economy standards to conserve oil. Pursuant to this act, the National Highway Traffic and Safety Administration, part of the U.S. Department of Transportation (DOT), is responsible for revising existing fuel economy standards and establishing new vehicle economy standards.

The Corporate Average Fuel Economy (CAFE) program was established to determine vehicle manufacturer compliance with the government's fuel economy standards. Compliance with the CAFE standards is determined based on each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the country. EPA calculates a CAFE value for each manufacturer based on the city and highway fuel economy test results and vehicle sales. DOT is authorized to assess penalties for noncompliance based on information generated under the CAFE program.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. The EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are also included in the EPAct. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 is designed to improve vehicle fuel economy and help reduce U.S. dependence on oil. It represents a major step forward in expanding the production of renewable fuels, reducing dependence on oil, and confronting global climate change. The Energy Independence and Security Act of 2007 increases the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022, which represents a nearly fivefold increase over current

levels. It also reduces U.S. demand for oil by setting a national fuel economy standard of 35 miles per gallon by 2020—an increase in fuel economy standards of 40 percent.

By addressing renewable fuels and the CAFE standards, the Energy Independence and Security Act of 2007 builds upon progress made by the Energy Policy Act of 2005 in setting out a comprehensive national energy strategy for the 21st century.

STATE

Warren-Alquist Act

The 1974 Warren-Alquist Act established the California Energy Resources Conservation and Development Commission, now known as the California Energy Commission (CEC). The creation of the act occurred as a response to the State legislature's review of studies projecting an increase in statewide energy demand, which would potentially encourage the development of power plants in environmentally sensitive areas. The act introduced State policy for siting power plants to reduce potential environmental impacts and sought to reduce demand for these facilities by directing CEC to develop statewide energy conservation measures to reduce wasteful, inefficient, and unnecessary uses of energy. Conservation measures recommended establishing design standards for energy conservation in buildings, which ultimately resulted in the creation of the Title 24 Building Energy Efficiency Standards (California Energy Code). These standards are updated regularly and remain in effect today. The act additionally directed CEC to cooperate with the Governor's Office of Planning and Research, the California Natural Resources Agency, and other interested parties in ensuring that a discussion of wasteful, inefficient, and unnecessary consumption of energy is included in all EIRs required on local projects.

State of California Energy Action Plan

CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The current plan is the 2003 *Energy Action Plan* (2008 update), which calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including assisting public agencies and fleet operators in implementing incentive programs for zero-emission vehicles and addressing their infrastructure needs, as well as encouraging urban design that reduces vehicle miles traveled (VMT) and accommodates pedestrian and bicycle access.

Assembly Bill 2076: Reducing Dependence on Petroleum

Pursuant to AB 2076 (Chapter 936, Statutes of 2000), CEC and the California Air Resources Board (CARB) prepared and adopted a joint agency report in 2003, *Reducing California's Petroleum Dependence*. Included in this report are recommendations to increase the use of alternative fuels to 20 percent of on-road transportation fuel use by 2020 and 30 percent by 2030, significantly increase the efficiency of motor vehicles, and reduce per capita VMT (CEC and CARB 2003). Further, in response to CEC's 2003 and 2005 Integrated Energy Policy Reports (IEPRs), the governor directed CEC to take the lead in developing a long-term plan to increase alternative fuel use.

A performance-based goal of AB 2076 was to reduce petroleum demand to 15 percent below 2003 demand by 2030.

Integrated Energy Policy Report

SB 1389 (Chapter 568, Statutes of 2002) required CEC to "conduct assessments and forecasts of all aspects of energy industry supply, production, transportation, delivery and distribution, demand, and prices. The Energy Commission shall use these assessments and forecasts to develop energy policies that conserve resources, protect the environment, ensure energy reliability, enhance the state's economy, and protect public health and safety" (PRC Section 25301[a]). This work culminated in preparation of the first IEPR.

CEC adopts an IEPR every 2 years and an update every other year. The 2017 IEPR, which is the most recent IEPR, was adopted March 16, 2018. The 2017 IEPR provides a summary of priority energy issues currently facing the state,

outlining strategies and recommendations to further the State's goal of ensuring reliable, affordable, and environmentally responsible energy sources. Energy topics covered in the report include progress toward statewide renewable energy targets and issues facing future renewable development; efforts to increase energy efficiency in existing and new buildings; progress by utilities in achieving energy efficiency targets and potential; improving coordination among the State's energy agencies; streamlining power plant licensing processes; results of preliminary forecasts of electricity, natural gas, and transportation fuel supply and demand; future energy infrastructure needs; the need for research and development efforts to statewide energy policies; and issues facing California's nuclear power plants.

Legislation Associated with Electricity Generation

The State has passed legislation requiring the increasing use of renewable energy to produce electricity for consumers. California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018). More detail about these regulations is provided in Section 4.6, "Greenhouse Gas Emissions and Climate Change."

Senate Bill 350: Clean Energy and Pollution Reduction Act of 2015

The Clean Energy and Pollution Reduction Act of 2015 (SB 350) requires doubling of the energy efficiency savings in electricity and natural gas for retail customers through energy efficiency and conservation by December 31, 2030.

Assembly Bill 1007: State Alternative Fuels Plan

AB 1007 (Chapter 371, Statutes of 2005) required CEC to prepare a State plan to increase the use of alternative fuels in California. CEC prepared the State Alternative Fuels Plan in partnership with CARB and in consultation with other State, federal, and local agencies. The plan presents strategies and actions California must take to increase the use of nonpetroleum fuels in a manner that minimizes the costs to California and maximizes the economic benefits of in-state production. The plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuel use, reduce greenhouse gas (GHG) emissions, and increase in-state production of biofuels without causing a significant degradation to public health and environmental quality.

Executive Order B-18-12: Green Building Action Plan

In 2012, Executive Order B-18-12 (State of California 2012) and the related Green Building Action Plan state the following energy- and water-efficiency improvement goals for facilities owned, funded, and leased by the State:

- ▶ All new State buildings beginning design after 2025 shall be constructed as Zero Net Energy (ZNE) facilities with an interim target for 50 percent of new facilities beginning design after 2020 to be ZNE. State agencies shall also take measures toward achieving ZNE for 50 percent of the square footage of existing State-owned building area by 2025.
- ▶ New and major renovated State buildings shall be designed and constructed to exceed the applicable version of CCR Title 24, Part 6, by 15 percent or more and to include building commissioning for buildings authorized to begin design after July 1, 2012.
- ▶ Any proposed new or major renovation of State buildings larger than 10,000 square feet shall use clean, on-site power generation, such as solar photovoltaic, solar thermal, and wind power generation, and clean backup power supplies, if economically feasible.
- ▶ New and major renovated State buildings larger than 10,000 square feet shall obtain Leadership in Energy and Environmental Design (LEED) "Silver" certification or higher.
- ▶ State agencies shall reduce water use at the facilities they operate by 10 percent by 2015 and by 20 percent by 2020, as measured against a 2010 baseline.

- ▶ All new and renovated State buildings and landscapes shall use alternative sources of water wherever cost-effective. Sources may include, but would not be limited to, recycled water, graywater, rainwater capture, stormwater retention, and other water conservation measures.
- ▶ Landscape plants shall be selected based on their suitability to local climate and site conditions and reduced water needs and maintenance requirements.
- ▶ State agencies shall identify and pursue opportunities to provide electric vehicle charging stations, and accommodate future charging infrastructure demand, at employee parking facilities in new and existing buildings.

Guidelines for State agencies to meet the energy and sustainability goals required by Executive Order B-18-12 are published in Section 1800 of the State Administrative Manual. Section 1815 of the manual and related DGS Management Memo MM 15-04 focus specifically on energy use reduction for new, existing, and leased buildings (DGS 2015).

California Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Energy Code. The code was established by CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption and provide energy-efficiency standards for residential and nonresidential buildings. CEC updates the California Energy Code every 3 years with more stringent design requirements for reduced energy consumption, which results in the generation of fewer GHG emissions.

The 2019 California Energy Code was adopted by CEC on May 9, 2018, and will apply to projects constructed after January 1, 2020. Nonresidential buildings are anticipated to reduce energy consumption by 30 percent as compared to the 2016 California Energy Code, primarily through prescriptive requirements for high-efficiency lighting (CEC 2018a). The code is enforced through the local plan check and building permit process. Local government agencies may adopt and enforce additional energy standards for new buildings as reasonably necessary in response to local climatologic, geologic, or topographic conditions, provided that these standards exceed those provided in the California Energy Code.

State Administrative Manual Section 1815.3-1(d) states, "All new building and renovation projects larger than 10,000 gross square feet shall be commissioned in accordance with...California Title 24, Part 6 Energy Efficiency Standards that are in effect at the time." Additionally, 1815.3-1(a) states that "all new building and renovation projects shall be designed and constructed to exceed by 15 percent the applicable version of the Title 24, Part 6, Building Energy Efficiency Standards.

California Green Building Standards (Title 24, Part 11)

The California Green Building Standards, also known as CALGreen, is a reach code (i.e., optional standards that exceed the requirements of mandatory codes) developed by CEC that provides green building standards for statewide residential and nonresidential construction. The current version is the 2016 CALGreen Code, which will remain in effect until December 31, 2019. It is anticipated that a new version of the CALGreen code will replace the current code on January 1, 2020. The CALGreen Code sets design requirements equivalent to or more stringent than those of the California Energy Code for energy efficiency, water efficiency, waste diversion, and indoor air quality. These codes are adopted by local agencies that enforce building codes and used as guidelines by State agencies for meeting the requirements of Executive Order B-18-12.

Legislation Associated with Greenhouse Gas Reduction

The State has passed legislation that aims to reduce GHG emissions. The legislation often has an added benefit of reducing energy consumption. SB 32 requires a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030. Executive Order S-3-05 sets a long-term target of reducing statewide GHG emissions by 80 percent below 1990 levels by 2050.

SB 375 aligns regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. The Advanced Clean Cars program, approved by CARB, combines the control of GHG emissions and criteria air pollutants and the increase in the number of zero-emission vehicles into a single package of standards. The program's zero-emission vehicle regulation requires battery, fuel cell, and/or plug-in hybrid electric vehicles to account for up to 15 percent of California's new vehicle sales by 2025.

Implementation of the State's legislation associated with GHG reduction will have the cobenefit of reducing California's dependency on fossil fuel and making land use development and transportation systems more energy efficient.

More details about legislation associated with GHG reduction are provided in the regulatory setting of Section 4.6, "Greenhouse Gas Emissions and Climate Change."

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The City of Sacramento 2035 General Plan includes the following policies applicable to increasing the energy efficiency of new development and reducing communitywide energy consumption in Sacramento:

- ▶ **Policy U 6.1.5: Energy Consumption per Capita.** The City shall encourage residents and businesses to consume 25 percent less energy by 2030 compared to the baseline year of 2005.
- ▶ **Policy U 6.1.6: Renewable Energy.** The City shall encourage the installation and construction of renewable energy systems and facilities such as wind solar, hydropower, geothermal, and biomass facilities.
- ▶ **Policy U 6.1.7: Solar Access.** The City shall ensure, to the extent feasible, that sites, subdivisions, landscaping, and buildings are configured and designed to maximize passive solar access.
- ▶ **Policy U 6.1.8: Other Energy Generation Systems.** The City shall promote the use of locally shared solar, wind, and other energy generation systems as part of new planned developments.
- ▶ **Policy U 6.1.15: Energy Efficiency Appliances.** The City shall encourage builders to supply EnergyStar™ appliances and HVAC [heating, ventilation, and cooling] systems in all new residential developments, and shall encourage builders to install high-efficiency boilers where applicable, in all new non-residential developments.

Sacramento Climate Action Plan

The Sacramento Climate Action Plan was adopted on February 14, 2012, by the Sacramento City Council and was incorporated into the 2035 General Plan. The Sacramento Climate Action Plan includes energy efficiency and renewable energy generation measures developed to help the city reach GHG reduction targets. Measures address energy consumption associated with transportation and land use, energy, water, waste management and recycling, and agriculture. The following City goals relate to energy efficiency and renewable energy:

- ▶ Use emerging transportation technologies and services to increase transportation system efficiency.

- ▶ Support the development and provision of privately funded and/or privately-operated transit services that support citywide and regional goals by reducing single-occupant vehicles trips, vehicle miles traveled and greenhouse gas emissions.
- ▶ Provide for the energy needs of the city and decrease dependence on nonrenewable energy sources through energy conservation, efficiency, and renewable resource strategies.

4.7.2 Environmental Setting

PHYSICAL SETTING

Energy Facilities and Services in the Project Area

Electric services in the City of Sacramento are provided by Sacramento Municipal Utility District (SMUD). Natural gas services are provided by Pacific Gas and Electric Company (PG&E). The State maintains a contract with SMUD requiring that energy provided to State buildings by SMUD be from 100-percent renewable resources.

The Capitol does not have natural gas service; however, heating and cooling is currently provided by chilled water and steam from the State's Central Utility Plant. Steam is generated by boilers heated with natural gas delivered by PG&E. The water chilling system uses a combination of cooling towers that use evaporative cooling and electric chillers. Electricity that operates fans, pumps, other equipment associated with the cooling towers, and the electric chillers is delivered by SMUD and is subject to the renewable energy contract with the State identified above.

Energy Types and Sources

California relies on a regional power system composed of a diverse mix of natural gas, petroleum, renewable energy, hydroelectric, and nuclear generation sources. In 2014, approximately 35 percent of natural gas consumed in the state was used to generate electricity.

Power plants in California meet approximately 68 percent of the in-state electricity demand, hydroelectric power from the Pacific Northwest provides 12 percent, and power plants in the southwestern United States provide the remaining 20 percent (EIA 2014). The contribution of in- and out-of-state power plants depends on the precipitation that occurred in the previous year, the corresponding amount of hydroelectric power that is available, and other factors. SMUD is the primary electricity supplier in the city of Sacramento. In 2017, SMUD received 19 percent of its power from renewable sources (e.g., biomass, geothermal, hydroelectric, solar, and wind), 35 percent from large hydroelectric sources, 44 percent from natural gas, and 2 percent from unspecified sources. (CEC 2018b). The proportion of SMUD-delivered electricity generated from eligible renewable energy sources is anticipated to increase over the next three decades to comply with the SB 100 goals described in Section 4.7.1. However, as described previously, the State maintains a contract with SMUD requiring that energy provided to State buildings by SMUD be from 100-percent renewable resources.

ENERGY USE FOR TRANSPORTATION

On-road vehicles use about 90 percent of the petroleum consumed in California. The California Department of Transportation projected that 782 million gallons of gasoline and diesel were consumed in Sacramento County in 2015, an increase of approximately 88 million gallons of fuel from 2010 levels (Caltrans 2008).

4.7.3 Impacts and Mitigation Measures

METHODOLOGY

Energy consumed by the project during construction includes gasoline and diesel fuel, measured in gallons. Energy consumed during operation includes electricity, measured in megawatt-hours per year based on the net change in building size from the existing Capitol Annex building (Capitol Annex, Annex) to the new Annex, as well as the visitor/welcome center and underground parking facility.

Energy consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod) version 2016.3.2 computer software (CAPCOA 2016). Where project-specific information was unknown, CalEEMod default values based on the project's location were used. CalEEMod default electricity consumption rates were adjusted to account for energy-efficiency improvements from the 2019 California Energy Code, which would result in a 30-percent reduction in energy consumption compared with the 2016 California Energy Code included in CalEEMod (CEC 2018a), as well as a 15-percent exceedance of the 2019 California Energy Code pursuant to Executive Order B-18-12.

It was assumed that the Project would have no direct use of natural gas. The project also would not result in the indirect use of natural gas related to heating by the State's Central Plant as it is assumed that heating provided at the new facilities would be via the SMUD renewable energy contract as opposed to a continuation of heating from the Central Plant (see Chapter 3, "Project Description" for more information on the State's contract with SMUD and the Central Plant). Emissions associated with electricity use for the building, and for cooling provided by the Central Plant chillers, would be offset by 100-percent renewable energy purchase through the State's contract with SMUD. There is no anticipated increase in VMT because the new Annex would be occupied by approximately the same number of elected officials and staff as the existing Annex. Operational activities associated with project implementation would not result in additional gallons of fuel for vehicle trips, as discussed in Section 4.3, "Transportation/Traffic."

Refer to Appendix D for detailed assumptions and modeling results.

THRESHOLDS OF SIGNIFICANCE

An impact related to energy would be significant if implementation of the Capitol Annex Project would:

- ▶ result in the wasteful, inefficient, or unnecessary consumption of energy during project construction or operation or
- ▶ conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.7-1: Wasteful, Inefficient, or Unnecessary Consumption of Energy during Project Construction or Operation

While the new Capitol Annex would have a larger building footprint than the existing Annex, the project would be designed with energy-efficiency design features, and the project would be powered with 100-percent renewable electricity through an agreement with SMUD. This is in comparison to the existing Annex that was built in the 1950s before energy reduction goals were in place and many current energy saving technologies were available. Additionally, there would be no direct natural gas usage at the building. The project would not result in the wasteful, inefficient, or unnecessary consumption of energy during construction or operation. This impact would be **less than significant**.

Appendix G of the State CEQA Guidelines requires the consideration of the energy implications of a project. CEQA requires mitigation measures to prevent or reduce wasteful, inefficient, and unnecessary energy usage. Neither the law nor the State CEQA Guidelines establish thresholds that define when energy consumption is considered wasteful, inefficient, or unnecessary.

Most of the construction-related energy consumption would be associated with off-road equipment and the transport of equipment and materials using on-road haul trucks. An estimated 102,367 gallons of gasoline and 601,910 gallons of diesel fuel would be used during construction of the project. The energy needs for project construction would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Associated energy consumption would be typical of a new office building project in an urban setting. Gasoline and diesel would be consumed during worker commute trips. Energy would be required to transport demolition waste and excavated materials. The one-time energy expenditure required to construct the project would be nonrecoverable. There is no atypical construction-related energy demand associated with the proposed project. Nonrenewable energy would not be consumed in a wasteful, inefficient, or unnecessary manner when compared to other construction activity in the region.

The existing Annex was built before the California Energy Standards were adopted and various current energy saving technologies were available. Although it has a smaller footprint than the new Annex would have, it is highly inefficient in terms of energy use. The new Annex would be built to the 2019 California Energy Code and is required to exceed this code by 15 percent pursuant to Executive Order B-18-12.

Table 4.7-1 summarizes the estimated levels of energy consumption for the first full year that the new Annex would be in operation, 2026, based on the net change in building size from the existing Annex, as well as energy consumption for the visitor/welcome center and underground parking facility. Operation of the project would be typical of government office buildings, which require electricity for lighting, climate control, and day-to-day activities. Annual electrical use for the building would be fully offset by renewable energy sources through an agreement with SMUD.

Table 4.7-1 Operational Energy Consumption in 2026

Land Use	Estimated Electricity Consumption (MWh/year)
Capitol Annex building	2,870
Underground parking	342
Visitor/welcome center	497
Total	3,709

Note: MWh/year = megawatt hours per year.

Source: Calculations by Ascent Environmental in 2019

The building would be designed to comply with the Green Building Action Plan for State-owned buildings established under Executive Order B-18-12. Also consistent with the Green Building Action Plan, measures addressing energy reduction, energy-efficient design strategies, electric vehicle charging, and renewable energy sources would be implemented to meet LEED Silver certification. Other energy-efficient design features include light-emitting diode lighting and EnergyStar®-certified office equipment.

In addition, there would be no direct or indirect (i.e., Central Plant) use of natural gas for space and water heating and therefore, natural gas consumption is excluded from building operation-related energy use.

The project would also include water efficiency measures, including the use of low-flow fixtures and water efficient landscaping, which would decrease indirect electricity consumption associated with the treatment, conveyance, and distribution of water.

According to Appendix F of the State CEQA Guidelines, the means to achieve the goal of conserving energy include decreasing per capita energy consumption, decreasing reliance on natural gas and oil, and increasing reliance on renewable energy sources. All the electricity consumed during project operation would be provided by renewable energy sources managed by SMUD. The project would implement energy efficiency measures to meet LEED v4 Silver certification and exceed the 2019 California Energy Code by 15 percent, thereby providing a relatively energy-efficient development. For these reasons, the project would not result in a wasteful, inefficient, or unnecessary consumption of energy. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.7-2: Conflict with or Obstruction of a State or Local Plan for Renewable Energy or Energy Efficiency

Renewable energy generation pursuant to Executive Order B-12-18 would result in an increase in renewable energy use, which would directly support the goals and strategies in the State's *Energy Action Plan* (2008 update). The new Capitol Annex would be designed to achieve LEED v4 Silver certification through energy and water efficiency measures, as well as exceed the 2019 California Energy Code by 15 percent pursuant to Executive Order B-18-12. The conservation of transportation fuel use would be encouraged through the lack of on-site parking and proximity to multiple modes of transportation in the downtown area. Therefore, implementation of the project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. This impact would be **less than significant**.

Relevant plans that pertain to the efficient use of energy include the *Energy Action Plan*, which focuses on energy efficiency; demand response; renewable energy; the supply and reliability of electricity, natural gas, and transportation fuels; and achieving GHG reduction targets (CEC and CPUC 2008).

Renewable Energy Use

The project would be designed with energy efficiency design features, and operation of the project would offset emissions associated with electricity use through a 100-percent off-site renewable energy agreement with SMUD. In addition, the project would have no direct or indirect use of natural gas, allowing for all direct and indirect energy consumption to be offset through renewable sources.

Building Energy Efficiency

The project would be designed to achieve LEED v4 Silver certification and exceed the 2019 California Energy Code by 15 percent through the installation of energy-efficient design features, such as low-flow water fixtures and high-efficacy lighting.

Transportation

Because of the project's downtown location, it is within a Transit Priority Area, close to multiple mode of transportation. Further, the Capitol Annex provides limited parking for employees and no visitor parking, encouraging users of the building to seek more fuel-efficient forms of transportation.

Summary

With the offset of the building energy use through the purchase of 100-percent renewable energy from SMUD, conservation of energy through installation of energy-efficient design features, and promotion of alternative modes of transportation, the project would directly support *Energy Action Plan* goals and strategies. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.8 NOISE AND VIBRATION

This section includes a summary of applicable regulations related to noise and vibration, a description of ambient-noise conditions, and an analysis of potential short-term construction and long-term operational-source noise impacts associated with the Capitol Annex Project. Mitigation measures are recommended as necessary to reduce significant noise impacts. Additional data is provided in Appendix E.

4.8.1 Regulatory Setting

FEDERAL

Federal Transit Administration

To address the human response to ground vibration, the Federal Transit Administration (FTA) has set forth guidelines for maximum-acceptable vibration criteria for different types of land uses. These guidelines are presented in Table 4.8-1.

Table 4.8-1 Ground-Borne Vibration Impact Criteria for General Assessment

Land Use Category	GVB Impact Levels (VdB re 1 micro- inch/second) Frequent Events ¹	GVB Impact Levels (VdB re 1 micro- inch/second) Occasional Events ²	GVB Impact Levels (VdB re 1 micro- inch/second) Infrequent Events ³
<i>Category 1:</i> Buildings where vibration would interfere with interior operations.	65 ⁴	65 ⁴	65 ⁴
<i>Category 2:</i> Residences and buildings where people normally sleep.	72	75	80
<i>Category 3:</i> Institutional land uses with primarily daytime uses.	75	78	83

Notes: VdB = vibration decibels referenced to 1 μ inch/second and based on the root mean square (RMS) velocity amplitude.

GBV = Ground-Borne Vibration

- ¹ "Frequent Events" is defined as more than 70 vibration events of the same source per day.
- ² "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.
- ³ "Infrequent Events" is defined as fewer than 30 vibration events of the same source per day.
- ⁴ This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research would require detailed evaluation to define acceptable vibration levels.

Source: FTA 2006.

STATE

California Department of Transportation

In 2013, Caltrans published the Transportation and Construction Vibration Manual (Caltrans 2013a). The manual provides general guidance on vibration issues associated with construction and operation of projects in relation to human perception and structural damage. Table 4.8-2 presents recommendations for levels of vibration that could result in damage to structures exposed to continuous vibration.

Table 4.8-2 Caltrans Recommendations Regarding Levels of Vibration Exposure

PPV (in/sec)	Effect on Buildings
0.4-0.6	Architectural damage and possible minor structural damage
0.2	Risk of architectural damage to normal dwelling houses
0.1	Virtually no risk of architectural damage to normal buildings
0.08	Recommended upper limit of vibration to which ruins and ancient monuments should be subjected
0.006-0.019	Vibration unlikely to cause damage of any type

Notes: PPV= Peak Particle Velocity; in/sec = inches per second

Source: Caltrans 2013a

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The Noise section within the Environmental Constraints Element of the City of Sacramento 2035 General Plan establishes the following standards and policies that are relevant to the analysis of the noise effects of the project:

- ▶ **EC 3.1.1 Exterior Noise Standards.** The City shall require noise mitigation for all development where the projected exterior noise levels exceed those shown in Table EC 1 (presented as Table 4.8-3, below), to the extent feasible.
- ▶ **EC 3.1.2 Exterior Incremental Noise Standards.** The City shall require noise mitigation for all development that increases existing noise levels by more than the allowable increment shown in Table EC 2 (presented as Table 4.8-4, below), to the extent feasible.
- ▶ **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} (with windows closed) for residential, transient lodgings, hospitals, nursing homes and other uses where people normally sleep; and 45 dBA L_{eq} (peak hour with windows closed) for office buildings and similar uses.
- ▶ **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.
- ▶ **EC 3.1.6 Effects of Vibration.** The City shall consider potential effects of vibration when reviewing new residential and commercial projects that are proposed in the vicinity of rail lines or light rail lines.
- ▶ **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 measures be implemented to ensure no damage would occur.
- ▶ **EC 3.1.8 Operational Noise.** The City shall require mixed-use, commercial, and industrial projects to mitigate operational noise impacts to adjoining sensitive uses when operational noise thresholds are exceeded.

- ▶ **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.
- ▶ **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.

Table 4.8-3 Exterior Noise Compatibility Standards for Various Land Uses

Land Use Type	Highest Level of Noise Exposure that is Regarded as "Normally Acceptable" ^a (L _{dn} ^b or CNEL ^c)
Residential—Low Density Single Family, Duplex, Mobile Homes	60 dBA ^{d,e}
Residential—Multi-family ^g	65 dBA
Urban Residential Infill ^h and Mixed-Use Projects ^{i,j}	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 Buildings—Business, Commercial and Professional	70 dBA
Industrial, Manufacturing, Utilities, Agriculture	75 dBA

^a As defined in 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."

^b L_{dn} or Day Night Average Level is an average 24-hour noise measurement that factors in day and night noise levels.

^c CNEL or Community Noise Equivalent Level measurements are a weighted average of sound levels gathered throughout a 24-hour period.

^d Applies to the primary open space area of a detached single-family home, duplex, or mobile home, which is typically the backyard or fenced side yard, as measured from the center of the primary open space area (not the property line). This standard does not apply to secondary open space areas, such as front yards, balconies, stoops, and porches.

^e dBA or A-weighted decibel scale is a measurement of noise levels.

^f The exterior noise standard for the residential area west of McClellan Airport known as McClellan Heights/Parker Homes is 65 dBA.

^g Applies to the primary open space areas of townhomes and multi-family apartments or condominiums (private rear yards for townhomes; common courtyards, roof gardens, or gathering spaces for multi-family developments). These standards shall not apply to balconies or small attached patios in multistoried multi-family structures.

^h With land use designations of Central Business District, Urban Neighborhood (Low, Medium, or High) Urban Center (Low or High), Urban Corridor (Low or High).

ⁱ All mixed-use projects located anywhere in the City of Sacramento

^j See notes d and g above for definition of primary open space areas for single-family and multi-family developments.

Source: OPR 2017, cited in City of Sacramento 2015, 2035 General Plan Table EC 1

Table 4.8-4 Exterior Incremental Noise Impact Standards for Noise-Sensitive Uses (dBA)

Residences and Buildings where People Normally Sleep ¹ Existing L _{dn}	Residences and Buildings where People Normally Sleep ¹ Allowable Noise Increment	Institutional Land Uses with Primarily Daytime and Evening Uses ² Existing Peak Hour L _{eq}	Institutional Land Uses with Primarily Daytime and Evening Uses ² Allowable Noise Increment
45	8	45	12
50	5	50	9
55	3	55	6
60	2	60	5
65	1	65	3
70	1	70	3
75	0	75	1
80	0	80	0

^a This category includes homes, hospitals, and hotels where a nighttime sensitivity to noise is assumed to be of utmost importance.

^b The 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: FTA 2006, cited in City of Sacramento 2015, 2035 General Plan Table EC 2

City of Sacramento Noise Control Ordinance

The City’s Noise Control Ordinance establishes the following standards related to noise that may be applicable to the project:

8.68.060 Exterior Noise Standards

- A. The following noise standards, unless otherwise specifically indicated in this article, shall apply to all agricultural and residential properties.
 - 1. From seven a.m. to ten p.m. the exterior noise standard shall be fifty-five (55) dBA.
 - 2. From ten p.m. to seven a.m. the exterior noise standard shall be fifty (50) dBA.
- B. It is unlawful for any person at any location to create any noise which causes the noise levels when measured on agricultural or residential property to exceed for the duration of time set forth following, the specified exterior noise standards in any one hour by:

Exterior Noise Standards

Cumulative Duration of the Intrusive Sound	Allowance Decibels
Cumulative period of 30 minutes per hour	0
Cumulative period of 15 minutes per hour	+5
Cumulative period of 5 minutes per hour	+10
Cumulative period of 1 minute per hour	+15
Level not to be exceeded for any time per hour	+20

- C. Each of the noise limits specified in subsection B. of this section shall be reduced by 5 dBA for impulsive or simple tone noises, or for noises consisting of speech or music.
- D. If the ambient noise level exceeds that permitted by any of the first four noise limit categories specified in subsection B of this section, the allowable noise limit shall be increased in 5 dBA increments in each category to encompass the ambient noise level. If the ambient noise level exceeds the fifth noise level category, the maximum ambient noise level shall be the noise limit for that category.

8.68.070 Interior Noise Standards

- A. In any apartment, condominium, townhouse, duplex or multiple dwelling unit it is unlawful for any person to create any noise from inside his or her unit that causes the noise level when measured in a neighboring unit during the periods ten p.m. to seven a.m. to exceed:
1. Forty five (45) dBA for a cumulative period of more than five minutes in any hour;
 2. Fifty (50) dBA for a cumulative period of more than one minute in any hour;
 3. Fifty five (55) dBA for any period of time.
- B. If the ambient noise level exceeds that permitted by any of the noise level categories specified in subsection A of this section, the allowable noise limit shall be increased in five dBA increments in each category to encompass the ambient noise level.

8.68.080 Exemptions

The following activities shall be exempted from the provisions of this chapter:

- D. 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 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.

4.8.2 Environmental Setting

ACOUSTIC FUNDAMENTALS

Before discussing the noise setting for the project, background information about sound, noise, vibration, and common noise descriptors is needed to provide context and a better understanding of the technical terms referenced throughout this section.

Sound, Noise, and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a human ear. Noise is defined as loud, unexpected, annoying, or unwanted sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz, or thousands of hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise

environments can range from less than 100 to 100,000,000 mPa. Because of this large range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB).

Addition of Decibels

Because decibels are logarithmic units, SPLs cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness at the same time, the resulting sound level at a given distance would be 3 dB higher than if only one of the sound sources was producing sound under the same conditions. For example, if one idling truck generates an SPL of 70 dB, two trucks idling simultaneously would not produce 140 dB; rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level approximately 5 dB louder than one source.

A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within this range better than sounds of the same amplitude with frequencies outside of this range. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of A-weighted decibels) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgment correlates well with the A-scale sound levels of those sounds. Thus, noise levels are typically reported in terms of A-weighted decibels. Table 4.8-5 describes typical A-weighted noise levels for various noise sources.

Table 4.8-5 Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	— 110 —	Rock band
Jet fly-over at 1,000 feet	— 100 —	
Gas lawn mower at 3 feet	— 90 —	
Diesel truck at 50 feet at 50 miles per hour	— 80 —	Food blender at 3 feet, Garbage disposal at 3 feet
Noisy urban area, daytime, Gas lawn mower 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 next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime	— 30 —	Library, Bedroom at night
Quiet rural nighttime	— 20 —	
	— 10 —	Broadcast/recording studio
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013b: Table 2-5

Human Response to Changes in Noise Levels

The doubling of sound energy results in a 3-dB increase in the sound level. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different from what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear can discern 1-dB changes in sound levels when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000–8,000 Hz) range. In general, the healthy human ear is most sensitive to sounds between 1,000 and 5,000 Hz and perceives both higher and lower frequency sounds of the same magnitude with less intensity (Caltrans 2013b:2-18). In typical noisy environments, changes in noise of 1–2 dB are generally not perceptible. However, it is widely accepted that people can begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness (Caltrans 2013b:2-10). Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound would generally be perceived as barely detectable.

Vibration

Vibration is the periodic oscillation of a medium or object with respect to a given reference point. Sources of vibration include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) and those introduced by human activity (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, (e.g., operating factory machinery) or transient in nature (e.g., explosions). Vibration levels can be depicted in terms of amplitude and frequency, relative to displacement, velocity, or acceleration.

Vibration amplitudes are commonly expressed in peak particle velocity (PPV) or root-mean-square (RMS) vibration velocity. PPV and RMS vibration velocity are normally described in inches per second (in/sec) or in millimeters per second. PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is typically used in the monitoring of transient and impact vibration and has been found to correlate well to the stresses experienced by buildings (FTA 2006:7-5, Caltrans 2013b:6). 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 2006:7-4; Caltrans 2013a:7). This is based on a reference value of 1 micro inch per second.

Vibrations generated by construction activity can be transient, random, or continuous. Transient construction vibrations are generated by blasting, impact pile driving, and wrecking balls. Continuous vibrations are generated by vibratory pile drivers, large pumps, and compressors. Random vibration can result from jackhammers, pavement breakers, and heavy construction equipment. Table 4.8-6 summarizes the general human response to different ground vibration-velocity levels.

Table 4.8-6 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

Common Noise Descriptors

Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors used throughout this section.

Equivalent Continuous Sound Level (L_{eq}): L_{eq} represents an average of the sound energy occurring over a specified period. In effect, L_{eq} is the steady-state sound level containing the same acoustical energy as the time-varying sound level that occurs during the same period (Caltrans 2013b:2-48). For instance, the 1-hour equivalent sound level, also referred to as the hourly L_{eq} , is the energy average of sound levels occurring during a 1-hour period.

Day-Night Level (L_{dn}): L_{dn} is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB "penalty" applied to sound levels occurring during nighttime hours between 10 p.m. and 7 a.m. (Caltrans 2013b:2-48; FTA 2006:2-22).

Maximum Sound Level (L_{max}): L_{max} is the highest instantaneous sound level measured during a specified period (Caltrans 2013b:2-48; FTA 2006:2-16).

Community Noise Equivalent Level (CNEL): CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m. and a 5-dB penalty applied to the sound levels occurring during evening hours between 7 p.m. and 10 p.m. (Caltrans 2013b:2-48). Many agencies and local jurisdictions in California often have established noise standards using the CNEL metric. The CNEL metric is not used by federal agencies and not commonly used in standards established by local communities outside of California.

Sound Propagation

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

Geometric Spreading

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

Ground Absorption

The propagation path of noise from a source to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling provides additional attenuation associated with geometric spreading. Traditionally, this additional attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver, such as soft dirt, grass, or scattered bushes and trees), additional ground-attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the attenuate rate associated with cylindrical spreading, the additional ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance. This would hold true for point sources, resulting in an overall drop-off rate of up to 7.5 dB per doubling of distance.

Atmospheric Effects

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels, as wind can carry sound. Sound levels can be increased over large distances (e.g., more than 500 feet) from the source because of atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also affect sound attenuation.

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receiver attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. A barrier that breaks the line of sight between a source and a receiver will typically result in at least 5 dB of noise reduction (Caltrans 2013b:2-41; FTA 2006:5-6, 6-25). Barriers higher than the line of sight provide increased noise reduction (FTA 2006:2-12). Vegetation between the source and receiver is rarely effective in reducing noise because it does not create a solid barrier unless there are multiple rows of vegetation (FTA 2006:2-11).

EXISTING NOISE ENVIRONMENT

Existing Noise- and Vibration-Sensitive Land Uses

Noise-sensitive land uses are generally considered to 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 because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels, and because of the potential for nighttime noise to result in sleep disruption. Additional land uses such as schools, transient lodging, historic sites, cemeteries, and places of worship are also generally considered sensitive to increases in noise levels. These land use types are also considered vibration-sensitive land uses in addition to commercial and industrial buildings where vibration would interfere with operations within the building.

Existing land uses surrounding the project site consist of the State-owned Jesse M. Unruh Office Building and the Library and Courts Building across 10th Street to the west approximately 200 feet; a City of Sacramento operated parking structure with ground floor retail and the Senator office building 350 feet and the Hyatt Regency 200 feet across L Street to the north; Capitol Park to the east; and the Legislative Office Building (LOB), Lewis Apartments, and Caltrans Headquarters building 100 feet across N Street to the south. In addition, the Thayer Apartments are located 500 feet to the southeast of the project site.

Of the aforementioned existing land uses surrounding the project site, the Hyatt Regency, the Lewis Apartments, and the Thayer Apartments are the only receptors where people sleep, and therefore, could be exposed to nighttime construction noise. All other receptors would be exposed to various levels of daytime construction noise depending on proximity to project site and specific construction activities taking place. Figure 3-2 identifies these receptors relative to the project site.

Existing Noise Sources and Ambient Levels

Two short-term (15 minute) and one 24-hour noise measurement was conducted at three different locations around the project site. The noise measurements were taken starting on June 4th, 2019 and ending on June 5th, 2019. The noise level measurements were conducted in accordance with American National Standards Institute standards using Larson Davis Laboratories (LDL) Model 820 and LxT precision integrating sound level meters. The sound level meters were calibrated before and after use with an LDL Model CAL200 acoustical calibrator.

Meteorological conditions during the measurement period were adequate for reliable noise measurements, with partly cloudy skies, temperatures ranging from 50 degrees Fahrenheit (°F) to 95 °F, light winds, and no precipitation.

Based on field observations during the ambient noise survey, the predominant noise source in the project area is vehicle traffic on the surrounding roadway network (e.g., L Street, N Street). Other sources include landscape equipment on Capitol Park, people talking, the occasional airplane flying overhead, and natural sounds such as birds chirping. Noise measurements were conducted on the project site at various locations to capture dominant traffic-noise as well as ambient background sounds occurring throughout the park (e.g., birds, people). See Figure 4.9-1 for the noise measurement locations. Results of the noise survey are shown in Table 4.8-7.



Source: Ascent Environmental 2019

Figure 4.8-1 Noise Measurement Locations

Table 4.8-7 Noise Measurement Summary

Short-Term Measurement ¹	Short-Term Start (Date/Time)	Short-Term Stop (Date/Time)	A-Weighted Sound Level (dBA) L_{eq}	A-Weighted Sound Level (dBA) L_{min}	A-Weighted Sound Level (dBA) L_{max}
ST-1	June 4 th , 2019/8:50 a.m.	June 4 th , 2019/9:05 a.m.	58.3	50.1	70.3
ST-2	June 4 th , 2019/9:15 a.m.	June 4 th , 2019/9:30 a.m.	50.5	47.8	57.3
Long-Term Measurement ¹	Long-Term (Date/Time)	Long-Term (Date/Time)	A-Weighted Sound Level CNEL/ L_{dn}	Daytime (7:00 a.m.-10:00 p.m.) L_{eq}	Nighttime (10:00 p.m.-7:00 a.m.) L_{eq}
LT-1	June 4 th , 2019/9:00 a.m.	June 5 th , 2019/9:00 a.m.	57.3	49.4-60.3	47.7-52.3

¹ Refer to Figure 4.8-1 for ambient noise level measurement locations; ST = short-term measurement; LT = long-term measurement

See Appendix E for detailed noise measurement data.

Source: Data collected by Ascent Environmental, Inc. 2019

4.8.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

To assess potential short-term (construction-related) noise and vibration impacts, sensitive receptors and their relative exposure were identified. Project-generated construction source noise and vibration levels were determined based on methodologies, reference emission levels, and usage factors from FTA's *Guide on Transit Noise and Vibration Impact Assessment* methodology (FTA 2006) and FHWA's *Roadway Construction Noise Model User's Guide* (FHWA 2006). Reference levels for noise and vibration emissions for specific equipment or activity types are well documented and the usage thereof common practice in the field of acoustics.

THRESHOLDS OF SIGNIFICANCE

Although State projects are exempt from local ordinances and standards, City noise standards are reasonable and appropriate thresholds for determination of significance. Therefore, a noise impact is considered significant if implementation of the Project would result in any of the following:

- ▶ **Construction noise:** temporary noise levels exceeding City Noise Control Ordinance standards during the more noise-sensitive evening, nighttime, and early-morning hours (6:00 p.m. to 7:00 a.m., Monday through Saturday, and between 6:00 p.m. and 9:00 a.m. on Sunday);
- ▶ **Construction vibration:** vibration levels exceeding Caltrans's recommended standards with respect to the prevention of structural building damage (0.2 and 0.08 in/sec PPV for normal and historical buildings, respectively) or FTA's vibration standard with respect to human response for frequent events (i.e., 72 VdB);
- ▶ **Operational stationary noise:** long-term noise levels generated by stationary sources that exceed City Noise Control Ordinance interior standards (Code Section 8.68.070).
- ▶ **Operational traffic noise:** long-term, traffic-generated noise levels exceeding the applicable normally acceptable noise standards for land use compatibility (Table 4.8-3) as specified in the City of Sacramento General Plan Environmental Constraints Section, an increase in ambient-noise levels of more than the allowable noise increment at nearby existing noise-sensitive land uses (Table 4.8-4) as specified in the City of Sacramento General Plan Environmental Constraints Section.

ISSUES NOT DISCUSSED FURTHER

The project is not located within an airport land use plan, or within two miles of a public airport or public use airport. Additionally, the project is not located within two miles of a private airstrip; Sacramento Executive Airport is the

closest airport and is located approximately 3.75 miles south of the project site. Thus, the project would not result in noise impacts related to the exposure of people residing or working in the project area to excessive aircraft-related noise levels. This issue is not discussed further.

Operation of the new Capitol Annex would not involve noise sources that are different from or exceed existing conditions. The project would not increase the number of employees in the new Annex building; the new parking structure would remain underground; and the new visitor/welcome center is not anticipated to generate additional visitors. The project would not increase traffic noise and would not introduce new stationary noise sources. Therefore, long-term increases in noise would not increase over existing conditions and this issue is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.8-1: Short-Term Construction Noise

Proposed construction areas are located in close proximity to existing noise-sensitive receptors. Most noise-generating construction activity would be performed during daytime hours, when construction noise is exempt from noise standards by the City of Sacramento Noise Control Ordinance. However, it is possible that construction activity may be required during the non-exempt evening and nighttime hours (6:00 p.m. to 7:00 a.m., Monday through Saturday, and between 6:00 p.m. and 9:00 a.m. on Sunday) for activities such as large continuous concrete pours. Nonetheless, accounting for simultaneous equipment operation, proximity to existing sensitive receptors, and typical attenuation rates for noise levels associated with the loudest construction activities, noise levels would not result in exceedance of City noise standards at any nearby receptors. This impact would be **less than significant**.

Short-term construction noise levels near the project site would fluctuate depending on the type, number, and duration of usage for the varying equipment. The effects of construction noise largely depend on the type of construction activities being performed; noise levels generated by those activities; distances to noise-sensitive receptors; the relative locations of noise attenuating features such as vegetation and existing structures; and existing ambient noise levels. Construction generally occurs in several discrete stages, each phase requiring a specific complement of equipment with varying equipment type, quantity, and intensity. These variations in the operational characteristics of the equipment change the effect they have on the noise environment of the project site and in the surrounding area for the duration of the construction period.

As discussed in Chapter 3, "Project Description," various heavy-duty equipment would be required for demolition and construction activities. Table 4.8-9 below includes a list of anticipated construction equipment to be used, and associated reference maximum (i.e., L_{max}) levels associated with each type.

Table 4.8-9 Noise Emission Levels from Construction Equipment

Equipment Type	Typical Noise Level (dBA) @ 50 feet
Drill Rig (Auger)	85
Compressor	80
Concrete Mixer	85
Concrete Pump Truck	82
Concrete Saw	90
Crane	85
Dozer	85
Grader	85
Excavator	85
Loader/Backhoe/Bobcat/Forklift	80
Lifts (boom/man/scissor)	85

Equipment Type	Typical Noise Level (dBA) @ 50 feet
Paver	85
Pickup Trucks	55
Roller	85
Scraper	85
Tractor	84
Truck	84
Welder	75
Pneumatic Tools	85

Notes: Assumes 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: FTA 2006

Construction activities would occur in three general areas surrounding the existing State Capitol Building, associated with construction of the new underground visitor/welcome center to the west, the new underground parking structure to the south, and the new Annex Building to the east. Construction staging would occur to the north and south of the existing State Capitol Building. Refer to Figure 3-3 for the general footprints of the project components where construction would occur.

As discussed in Chapter 3, "Project Description," the new underground visitor/welcome center would be constructed and completely operational before demolition of the existing Annex building. Construction of the new underground parking structure may occur simultaneously with construction of the new visitor/welcome center, but is more likely to overlap with demolition of the existing Annex building and/or construction of the new Annex. Primary construction activities associated with the new Annex Building would occur after completion of the visitor/welcome center.

Because of the different equipment types associated with various construction activities and overlapping of phases, construction noise levels may vary throughout the phases of the project depending on what components are constructed simultaneously. Underground components would primarily involve equipment associated with excavation and earth movement, such as graders and loaders, whereas demolition and building construction would involve additional pieces of equipment such as lifts, cranes, painting equipment. Material hauling and staging activities would generate noise associated with vehicle movement and would generally occur throughout the duration of construction activities. Most of the construction activity would occur during daytime hours (i.e., 7:00 a.m. to 6:00 p.m.), consistent with the City of Sacramento's Noise Control Ordinance. However, large concrete pours may be required, involving concrete mixers and trucks. Thus, construction noise was estimated for demolition, excavation/site preparation, building construction, staging activities, and concrete pours. Based on reference noise levels included in Table 4.8-9, assumed simultaneous operation of five pieces of equipment combining to affect the same receptor, and considering the types of equipment that are used during each phase, construction noise levels, by phase, are presented below in Table 4.8-10.

Table 4.8-10 Noise Emission Levels from Construction Activities

Construction Activity	Noise Level (L_{eq} dBA) @ 50 feet	Noise Level (L_{max} dBA) @ 50 feet
Demolition	85.6	93.0
Site Preparation/Excavation	87.0	91.0
Building Construction	84.8	90.4
Staging	81.5	85.5
Concrete Pour	81.5	86.2

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: FTA 2006

Based on the modeling conducted, demolition and site preparation/excavation activities would result in the highest noise levels. Site preparation/excavation would be required at all construction locations and demolition would primarily occur at the existing Annex building. Staging activities would occur at various locations throughout the duration of the entire project construction. However, because each component of construction activity is located on different sides of the State Capitol Building, noise associated with each project component would affect receptors nearest to the associated construction site. For example, noise generated from construction of the visitor/welcome center would primarily affect the Jesse M. Unruh Office Building and the Library and Courts Building. Thus, for purpose of this analysis site preparation/excavation-related noise was used to estimate noise level exposure at receptors nearest the individual construction sites. That is, site preparation/excavation-related noise was propagated to estimate noise exposure at receptors to the west and south of the project site. Noise associated with staging activities was used to estimate noise levels at receptors north of the site. Table 4.8-11 below shows estimated noise levels at each receptor location.

Table 4.8-11 Levels of Noise Exposure at Noise-Sensitive Receptors during Typical Daytime Construction Activity

Sensitive Receptor ¹	Approximate Distance to Sensitive Receptor (feet)	Daytime Construction Noise Exposure Level at Sensitive Receptor ² L _{eq} (dBA)	Daytime Construction Noise Exposure Level at Sensitive Receptor ² L _{max} (dBA)
Jesse M. Unruh and Library and Courts Building	200	71.6	75.3
The Senator Office Building	350	65.2	68.9
Hyatt Regency Hotel	200	65.6	69.6
Legislative Office Building, Caltrans Headquarters, Lewis Apartments	100	79.5	83.2
Thayer Apartments	500	61.1	64.8

¹ See Figure 4.8-1 for locations of sensitive land uses relative to the project site.

² Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: Data modeled by Ascent Environmental in 2019

As shown in Table 4.8.11, modeled daytime construction-generated noise levels could reach 79.5 L_{eq} and 83.2 dBA L_{max} at the nearest receptors (i.e., LOB, Caltrans Headquarters, Lewis Apartments) to the south of the project site. Noise-generating construction activities that occur during the more noise-sensitive evening and nighttime hours are of increased concern. Because exterior ambient noise levels typically decrease during the late evening and nighttime hours as traffic volumes and commercial activities decrease, and because typical sleep hours occur during these times, construction activities performed during these more noise-sensitive periods of the day can result in increased annoyance and potential sleep disruption for occupants of nearby residential uses.

Noise generated by construction activity between 7:00 a.m. and 6:00 p.m., Monday through Saturday, and between 9:00 a.m. and 6:00 p.m. on Sunday are exempt from the provisions of the City Noise Control Ordinance. As described in Chapter 3, "Project Description," construction would primarily occur during the day, thus, would be exempt from City Noise Control Ordinance provisions. In addition, typical building construction provides at least a 25-dB exterior-to-interior noise reduction (Caltrans 2002). So, maximum noise levels reported above would be much lower within adjacent buildings.

Although not anticipated, it is possible that construction activities may need to occur between 6:00 p.m. and 7:00 a.m. Monday through Saturday, or 6:00 p.m. and 9:00 a.m. on Sunday. A distinction is made between nighttime construction indoors, within the building after walls and windows are in place, and outdoor construction activities that are not enclosed by the partially completed building. Indoor construction activities, such as installing wiring, drywall, and carpet, would be permitted during nighttime hours. However, contractors would only be permitted to conduct outdoor construction during the nighttime hours if there are no other reasonable options. For example, some

foundation designs require that once the pouring of concrete begins, the pour must continue without pauses until complete. In some instances, such a concrete pour may take 20 or more hours, requiring work to occur during the nighttime hours. It is unknown at this time if the final building design would have any elements that require outdoor nighttime construction. Therefore, to ensure a comprehensive evaluation of potential environmental effects, this Draft EIR assumes the potential for limited outdoor nighttime construction activity. Note that nighttime concrete pours are more commonly associated with building foundations, and therefore, it was assumed that this activity could occur with construction of the new Annex Building.

As shown in Table 4.8-12, if a nighttime concrete pour were required, likely the most noise intensive nighttime construction activity that might occur, associated noise could reach 55 dBA L_{eq} at the Thayer Apartments or Lewis Apartments and 66 dBA L_{eqx} at the Hyatt Regency, both places where people normally sleep.

Table 4.8-12 Levels of Noise Exposure at Noise-Sensitive Receptors during a Nighttime Concrete Pour

Sensitive Receptor	Approximate Distance to Sensitive Receptor (feet)	Exterior Nighttime Construction Noise Level (dBA) at Sensitive Receptor (L_{eq})	Interior Nighttime Construction Noise Level (dBA) at Sensitive Receptor (L_{eq})
Thayer Apartments	500	55	30
Hyatt Regency Hotel/Lewis Apartments	100-200	66	41

Notes: Assumes all equipment is fitted with a properly maintained and operational noise control device, per manufacturer specifications. Noise levels listed are manufacture-specified noise levels for each piece of heavy construction equipment.

Source: Data modeled by Ascent Environmental in 2019

As shown above in Table 4.8-12, assuming the average exterior-to-interior noise level reduction of 25 dB typically provided by residential buildings with the windows closed (Caltrans 2002), the highest L_{eq} in the interior of rooms at the Lewis Apartments, the Thayer Apartments, or the Hyatt Regency Hotel would not exceed the 45-dBA interior noise standard detailed in the City Noise Control Ordinance. Thus, because no sensitive receptor would be exposed to noise levels that exceed applicable standards, construction-related noise would not result in excessive temporary noise exposure at any receptor. This impact would **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.8-2: Short-Term Construction-Related Vibration Levels

Project construction would require the use of heavy-duty vibration-generating equipment. Based on the anticipated construction activities and associated equipment, demolition, excavation, shoring of existing foundations and drilling of piles for new structures would generate the highest levels of vibration. Specific locations, number/frequency of piles, and specific (i.e., equipment model) is not known at this time and pile drilling would be located adjacent to the existing Historic Capitol, potentially resulting in structural damage and/or disturbance to employees or daily operations taking place within the building. This impact would be **significant**.

Construction activities generate varying degrees of temporary ground vibration, depending on the specific construction equipment used and activities involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The effects of ground vibration may be imperceptible at the lowest levels, result in low rumbling sounds and detectable vibrations at moderate levels, and, at high levels, can cause annoyance and sleep disturbance and damage to nearby structures.

When considering new construction, pile driving or blasting typically generate the highest vibration levels and are, therefore, of greatest concern when evaluating construction-related vibration impacts. However, no blasting is proposed and impact pile driving would be avoided; an alternative approach, such as the use of drilled auger cast piles or drilled displacement piles, would be used during construction of the new facilities.

According to FTA, a reference vibration level associated with drilling piles is 0.089 in/sec PPV at 25 feet. Based on FTA's recommended procedure for applying a propagation adjustment to this reference level, vibration from pile driving could exceed the threshold of significance of 0.2 in/sec PPV for normal buildings within 15 feet of drilling and the threshold of significance for historical buildings of 0.08 in/sec PPV within 30 feet of drilling activities (refer to Appendix E for modeling details).

Vibration levels can also result in interference or annoyance impacts for residences or other land uses where people sleep, such as residences, hotels, and hospitals. According to FTA, a reference vibration level for pile driving is 87 VdB at 25 feet (FTA 2006). FTA vibration annoyance potential criteria depend on the frequency of the vibration events. When vibration events occur more than 70 times per day, as would likely be the case with pile driving, they are considered "frequent events." Frequent events in excess of 72 VdB are considered to result in a significant vibration impact. Based on FTA's recommended procedure for applying propagation adjustments to this reference level, vibration from pile driving could exceed the threshold of significance for "frequent events" within 80 feet of a sensitive land use (refer to Appendix E for modeling details).

As discussed above in the existing setting, all offsite buildings are located beyond the distances where vibration impacts could occur, and therefore, construction-related vibration would not result in any impacts to offsite structures. Construction of the underground components and the new Annex Building would occur adjacent to the existing Historic Capitol, and therefore, depending on proximity of construction activities to the existing Historic Building and frequency of piles, vibration could potentially result in structural damage or disturbance to daily operations occurring within the existing Historic Capitol.

Measures, including ground vibration monitoring and response, would be implemented during construction to prevent damage to the Historic Capitol and other nearby buildings and site features. However, specific measures have not been established and construction details, such location of piles, frequency of piles, or specific equipment to be used are not known. Further, site-specific conditions (e.g., soil type, building integrity) that are important considerations when determining how vibration effects a building are also not known or accounted for in the vibration modeling. Thus, given the magnitude of construction involving piles in close proximity to the existing Capitol Building, this impact would be **significant**.

Mitigation Measures

Mitigation Measure 4.8-1: Develop and Implement a Vibration Control Plan

This mitigation measure shall be applicable to construction activities (other than staging, utility installations, and similar low intensity activities) located within 30 feet of any building or within 80 feet of an occupied building (i.e., the existing Historic Capitol).

A vibration control plan shall be developed by the design-build team to be submitted to and approved by DGS and the JRC before initiating any construction activities within the type and distance parameters identified above. Applicable elements of the plan will be implemented before, during, and after construction activity. The plan shall consider all potential vibration-inducing activities that would occur and require implementation of sufficient measures to ensure that existing Historic Capitol, or other buildings, are not exposed to vibration levels that would result in damage to the building. Items that shall be addressed in the plan include, but are not limited to, the following:

- ▶ Pile installation activities shall be limited to the daytime hours between 7:00 a.m. and 6:00 p.m. Monday through Saturday and between 9:00 a.m. and 6:00 p.m. on Sunday. No nighttime pile installation will be permitted.
- ▶ Pre-construction surveys shall be conducted to identify any pre-existing structural damage to the existing Historic Capitol, or other buildings, that may be affected by project generated vibration.
- ▶ Minimum setback requirements for different types of ground vibration-producing activities (e.g., pile driving) for the purpose of preventing damage to nearby structures shall be established based on the proposed activities and locations, once determined. Factors to be considered include the specific nature of the vibration producing activity (e.g., type and duration of pile driving), local soil conditions, and the fragility/resiliency of the nearby structures. Setback requirements will be based on a project-specific/site specific analysis conducted by a qualified geotechnical

engineer, structural engineer familiar with the building(s) that may be affected, and a ground vibration specialist. The criteria for vibration setbacks, and any other vibration controls, is to generate no ground vibration during project construction that would result in structural damage at nearby buildings or structures.

- ▶ All construction-generated vibration levels shall be monitored and documented at the existing Historic Capitol to ensure that applicable thresholds are not exceeded. Recorded data will be submitted on a weekly basis to DGS and the JRC. If it is found at any time by the design-build team or DGS and the JRC that thresholds are exceeded, an evaluation of the building that might be affected will be conducted to assess whether any damage has occurred. If vibration induced damage has occurred, methods will be implemented to reduce vibration to below applicable thresholds, such as changing construction methods, or increasing setback distances,
- ▶ Controlling vibration sufficient to prevent structure damage is also likely to prevent substantial human disturbance from vibration. However, the JRC shall identify a point of contact for vibration complaints. It is expected that any complaints, if they occur, would be generated by State personnel within the Historic Capitol. The point of contact for complaints shall work with the JRC and the construction team to resolve the complaint, such as providing an alternative temporary work space away from the source of vibration for the duration of construction.

Significance after Mitigation

Implementation of Mitigation Measure 4.8-1 would require the preparation and implementation of a vibration control plan that ensures that pile driving would not occur during the more sensitive times of the day (i.e., late evening through early morning), control vibration sufficiently to prevent structural damage to nearby buildings, and correct situations where substantial human disturbance from vibration might occur. These measures would ensure compliance with recommended vibration levels to prevent structural damage and human annoyance and this impact would be reduced to a **less-than-significant** level.

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4.9 GEOLOGY AND SOILS

This section describes current conditions relative to geology and soils at the Capitol Annex Project site. It includes a description of soils, analysis of environmental impacts, and recommendations for mitigation measures for any significant or potentially significant impacts. The primary source of information used for this analysis is the *Geotechnical Investigation* prepared for the project by Geocon Consultants (Geocon)(Geocon 2019) (provided in Appendix F of this Draft EIR), which evaluates geologic conditions at the project site.

4.9.1 Regulatory Setting

FEDERAL

National Earthquake Hazards Reduction Act

In October 1977, the U.S. Congress passed the Earthquake Hazards Reduction Act to reduce the risks to life and property from future earthquakes in the United States. To accomplish this reduction, the act established the National Earthquake Hazards Reduction Program (NEHRP). The mission of NEHRP includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improved building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improved mitigation capacity; and accelerated application of research results. The NEHRP designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns several planning, coordinating, and reporting responsibilities.

STATE

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Alquist-Priolo Act) (PRC Sections 2621–2630) intends to reduce the risk to life and property from surface fault rupture during earthquakes by regulating construction in active fault corridors and by prohibiting the location of most types of structures intended for human occupancy across the traces of active faults. The act defines criteria for identifying active faults, giving legal support to terms such as “active” and “inactive,” and establishes a process for reviewing building proposals in Earthquake Fault Zones. Under the Alquist-Priolo Act, faults are zoned, and construction along or across these zones is strictly regulated if the faults are “sufficiently active” and “well defined.” A fault is considered sufficiently active if one or more of its segments or strands shows evidence of surface displacement during Holocene time (defined for purposes of the act as within the last 11,000 years). A fault is considered well defined if its trace can be clearly identified by a trained geologist at the ground surface or in the shallow subsurface, using standard professional techniques, criteria, and judgment (Bryant and Hart 2007). Before a project can be permitted in a designated Alquist-Priolo Earthquake Fault Zone, cities and counties must require a geologic investigation to demonstrate that proposed buildings would not be constructed across active faults. The law addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

Seismic Hazards Mapping Act

The intention of the Seismic Hazards Mapping Act of 1990 (PRC Sections 2690–2699.6) is to reduce damage resulting from earthquakes. Although the Alquist-Priolo Act addresses surface fault rupture, the Seismic Hazards Mapping Act addresses other earthquake-related hazards, including ground shaking, liquefaction, and seismically induced landslides. The act’s provisions are similar in concept to those of the Alquist-Priolo Act: The State is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other corollary hazards, and cities and counties are required to regulate development in mapped Seismic Hazard Zones. Under the Seismic Hazards Mapping Act, permit review is the primary mechanism for local regulation of development.

California Building Code

The California Building Code (CBC) (CCR Title 24) is based on the International Building Code. The CBC differs from the International Building Code in that it reflects California conditions and includes more detailed and/or more stringent regulations. Specific minimum seismic safety and structural design requirements are set forth in Chapter 16 of the CBC. The CBC identifies seismic factors that must be considered in structural design. Chapter 18 of the CBC regulates the excavation of foundations and retaining walls, and Chapter 18A regulates construction on unstable soils, such as expansive soils and areas subject to liquefaction. Appendix J of the CBC regulates grading activities, including drainage and erosion control. The CBC contains a provision that provides for a preliminary soil report to be prepared to identify "the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects" (CBC Chapter 18 Section 1803.1.1.1).

Paleontological Resources: California Public Resources Code

The PRC protects paleontological resources through Section 5097.5 which prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted permission.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The Environmental Constraints Element of the City of Sacramento 2035 General Plan outlines the City of Sacramento's (City's) goals and policies regarding seismic and geologic hazards. The following goal and policies are those most applicable to the Capitol Annex Project:

GOAL EC 1.1: Hazards Risk Reduction. Protect lives and property from seismic and geologic hazards and adverse soil conditions.

- ▶ **Policy EC 1.1.1: Review Standards.** The City shall regularly review and enforce all seismic and geologic safety standards and require the use of best management practices (BMPs) in site design and building construction methods.
- ▶ **Policy EC 1.1.2: Geotechnical Investigations.** The City shall require geotechnical investigations to determine the potential for ground rupture, ground-shaking, and liquefaction due to seismic events, as well as expansive soils and subsidence problems on sites where these hazards are potentially present.

4.9.2 Environmental Setting

REGIONAL GEOLOGY

The Capitol Annex Project is located in the Sacramento Valley in the northern portion of the Great Valley geomorphic province. A geomorphic province is an area of similar geologic origin and erosional/depositional history. The Great

Valley geomorphic province is approximately 400 miles long and 70 miles wide and occupies approximately 20,000 square miles. The Sacramento Valley contains thousands of feet of accumulated fluvial, overbank, and fan deposits resulting from erosion of the adjacent Sierra Nevada to the east, Northern Coast Range to the west, and Klamath Mountains and Cascade Range to the north. These deep alluvial deposits thin and terminate as the boundaries of the basin are approached and bedrock units of the Foothills Metamorphic Belt and the basement complex of the Sierra Nevada Batholith are exposed to the east; sedimentary and mélangé bedrock of the Coast Ranges are exposed to the west; and sedimentary, mélangé, and volcanic rock of the Klamath Mountains and Cascade Range are exposed to the north.

The Great Valley province is bounded on the west by the Coast Range–Great Valley Thrust fault system. This system is a series of blind thrust faults (i.e., low-angle faults that do not extend to the ground surface) beneath the western margin of the valley. Rocks of the Coast Ranges are being thrust up over the basement rock and Great Valley sediments along these blind faults. Tertiary- and Quaternary-age east–west compression across the Sacramento Valley has formed regional structural features consisting of generally north- to northwest-trending reverse broad folds and underlying blind reverse faults. A few normal faults representing north–south extension exist at the northern and southern ends of the valley (Geocon 2019).

LOCAL GEOLOGY

The project site, which is located less than 1 mile from the Sacramento River to the west and less than 2 miles from the American River to the north, is underlain by Holocene Alluvium (Qa), described as unweathered gravel, sand, and silt deposited by present-day stream and river systems that drain the Coast Ranges, Klamath Mountains, and Sierra Nevada.

TOPOGRAPHY AND DRAINAGE

The project site is in a flat, urban area devoid of slopes other than the small slope resulting from the Historic Capitol being constructed on approximately 6 feet of imported fill. The site has been graded as part of urban development and contains landscaped areas and impervious surfaces, including paved pathways and sidewalks. Both natural drainage and drainage to existing stormwater infrastructure occurs at the project site. All stormwater enters the City of Sacramento Combined Sewer System, which collects and conveys both stormwater and wastewater.

GROUNDWATER

The Sacramento area is underlain by geologic formations that include an upper, unconfined groundwater/aquifer system (able to receive water that infiltrates from the surface) and a lower, semiconfined groundwater/aquifer system (infiltration of water can be partially blocked by impermeable layers). Depth to groundwater in the downtown area varies seasonally but is relatively shallow (can be less than 10 feet to the water table), with no predominant direction of groundwater flow (Sacramento Central Groundwater Authority 2012).

During site investigations, groundwater was encountered through auger borings at between 15 and 21 feet below ground surface (bgs). On the basis of these data, the potential to encounter groundwater below 15 feet is considered high. Groundwater elevations and soil moisture conditions in the project area vary depending on seasonal rainfall, irrigation practices, land use, and runoff conditions. Because the State Capitol grounds, including the project site, is irrigated, it is common for seasonal seepage to develop at the interface between the surficial soils and the variably cemented hardpan soils at depth (Geocon 2019).

SOILS

During site investigations, fill was encountered at the ground surface and depths ranging from 3.5-11 feet. The fill generally consisted of soft- to medium-stiff, sandy silt and loose- to medium-dense silty sand with some gravel and brick fragments. As described above, recent and older alluvium was encountered below the fill. Recent alluvium is

described as containing layers of soft to medium stiff silt and lean clay interbedded with loose to medium dense silty and poorly graded sand. Older Alluvium consists of interbedded very stiff to hard (cemented) clay, dense to very dense gravel (GP), and medium dense to dense clayey sand. The “older alluvium” is the bearing layers for most deep foundation systems in downtown Sacramento. The composition of the older alluvium is variable; where some areas contain a heavy concentration of large gravel and small cobble, and other areas contain very little, if any, gravel (Geocon 2019).

The soil at and surrounding the project site is classified as Urban Land of variable surface texture (NRCS 2019). Soils of this variety are characterized by heavy alteration from their natural character by urban land uses. Soil composition may have been altered during construction of structures and paved surfaces. Grading, excavation, and placement of fill are common construction practices and contribute to soil mixing and altered composition of soil.

Natural soil complexes that made up the original, unaltered soil horizon have been truncated, mixed, or otherwise altered. Where native soils still exist, soil types are expected to be similar to those of nearby areas, consisting of those identified in Table 4.9-1 (SCS 1985). In their unaltered state, most of these soils have low to moderate shrink-swell potential and rarely can have high shrink-swell characteristics. Taken together, these soils are susceptible to a variety of soil risk factors, such as shallow hardpan, shallow bedrock, caving, flooding, and low strength. Construction on these soils generally requires design features that reduce or eliminate structural damage or failure risks.

Table 4.9-1 Summary of Soil Characteristics

Soil Group	Texture	Shrink-Swell Potential	Risk and Restrictive Soil Features for Building-Site Development
Americanos	Silt loam, sandy loam	Low	Slight to moderate: low strength
Andregg	Coarse sandy loam, weathered bedrock	Low	Slight to moderate: depth to bedrock
Argonaut	Loam, clay loam, gravelly clay loam, gravelly loam, weathered bedrock	Low to high	Moderate to severe: depth to rock, too clayey, shrink-swell, low strength
Auburn	Loam, unweathered bedrock	Low	Severe: depth to rock
Columbia	Sandy loam, stratified sand to silt loam, clay loam, silty clay loam, clay	Low to high	Moderate to severe: cutbanks cave, flooding, shrink-swell, droughty
Egbert	Clay, silty clay loam, stratified clay loam to clay loam	Moderate to high	Moderate to severe: too clayey, wetness, flooding, shrink-swell, low strength
Hedge	Loam, fine sandy loam, clay loam, sandy clay loam, cemented sandy loam	Low to moderate	Moderate to severe: wetness, flooding, cemented pan
Kaseberg	Loam, indurated weathered bedrock	Low	Moderate to severe: depth to rock, cemented pan, slope
Kimball	Silt loam, clay, clay loam, sandy clay loam, sandy loam	Low to high	Slight to severe: too clayey, shrink-swell, low strength
Lang	Fine sandy loam, stratified sand to loamy fine sand	Low	Moderate to severe: cutbanks cave, flooding, droughty
Laugenour	Loam, fine sandy loam, sandy loam, stratified very fine sandy loam to loam	Low	Slight to severe: wetness, flooding
Liveoak	Sandy clay loam, sandy loam, stratified gravelly loamy coarse sand to sandy loam	Low	Slight to severe: cutbanks cave, flooding
Orthents	Not identified	—	—
Red Bluff	Loam, clay loam, gravelly clay loam, gravelly clay, very gravelly clay loam, very gravelly clay	Low to moderate	Slight to moderate: too clayey, shrink-swell, low strength
Rossmoor	Fine sandy loam, sandy loam	Low	Slight to severe: flooding

Soil Group	Texture	Shrink-Swell Potential	Risk and Restrictive Soil Features for Building-Site Development
Sailboat	Silt loam, stratified sandy loam to silty clay loam, stratified sandy clay loam to silty clay loam, stratified loam to silt loam	Low to moderate	Slight to severe: wetness, flooding, low strength, shrink-swell
Tinnin	Loamy sand, loamy coarse sand, sand	Low	Slight to severe: cutbanks cave, slope, droughty
Valpac	Loam, stratified sandy loam to silty clay loam	Low to moderate	Slight to severe: wetness, flooding, shrink-swell
Xerarents	Not identified	—	—

Source: SCS 1985

SUBSIDENCE AND DYNAMIC COMPACTION

Land subsidence is the gradual settling or sinking of an area with very little horizontal motion. Subsidence can be induced by both natural and human phenomena. Natural phenomena include shifting of tectonic plates and dissolution of limestone that results in sinkholes. Human-related activity that can induce subsidence includes pumping of water, oil, and gas from underground reservoirs; collapse of underground mines; drainage of wetlands; and soil compaction.

Dynamic compaction, or seismic settlement, can also occur as a result of seismic shaking. It typically occurs in the layers above groundwater, in unsaturated, loose, granular material or uncompacted fill soils. The Capitol Annex Project site is underlain by a variety of soft to medium-dense silt (Recent Alluvium) and medium dense to very dense soils (Older Alluvium). It is possible that widespread dewatering could result in subsidence of localized due to increases in effective stress in the soil as the groundwater level is lowered (Geocon 2019).

EXPANSIVE SOILS

Expansive soils (also known as shrink-swell soils) are soils that contain expansive clay minerals that can absorb significant amounts of water. The presence of these clay minerals makes the soil prone to large changes in volume in response to changes in water content. When an expansive soil becomes wet, water is absorbed, and the soil increases in volume, and as the soil dries, it contracts and decreases in volume. This repeated change in volume over time can produce enough force and stress on buildings, underground utilities, and other structures to damage foundations, pipes, and walls. The quantity and type of expansive clay minerals affects the potential for the soil to expand or contract. Where native soils still exist, soil types may be expected to be similar to those of the nearby areas.

Soils encountered during testing represent fine-grained soils that indicate relatively low plasticity and low expansion potential. On the basis of these results, the potential for expansive soils is considered low (Geocon 2019).

MASS WASTING AND LANDSLIDES

“Mass wasting” refers to the collective group of processes that characterize downslope movement of rock and unconsolidated sediment overlying bedrock. These processes include landslides, slumps, rockfalls, flows, and creeps. Many factors contribute to the potential for mass wasting, including geologic conditions, as well as the drainage, slope, and vegetation of the site. The project site is located on a topographically flat area on the valley floor in the floodplain of the Sacramento River, where landslides typically would not occur. Further, as described in the Geotechnical Investigation, the project site is not located in a geologic hazard zone (e.g., landslide area) (Geocon 2019). On the basis of these results, the potential for landslides or slope instability is considered low.

SEISMICITY

Most earthquakes originate along fault lines. A fault is a fracture in the Earth’s crust along which rocks on one side are displaced relative to those on the other side because of shear and compressive crustal stresses. Most faults are

the result of repeated displacement that may have taken place suddenly or by slow creep (Bryant and Hart 2007). The state of California has a classification system that designates faults as active, potentially active, or inactive, depending on how recently displacement has occurred along them. Faults that show evidence of movement within the last 11,000 years (the Holocene geologic period) are considered active, and faults that have moved between 11,000 and 1.6 million years ago (the later Pleistocene geologic period) are considered potentially active.

Review of aerial photographs and site reconnaissance did not reveal geomorphic features indicating fault activity on or projecting toward the project site. The site is not located in an Alquist-Priolo Earthquake Fault Zone, and no mapped active or potentially active fault traces are known to traverse or project toward the site. The mapped fault closest to the project site is the Foothills Fault System. This fault system, and other faults in the region, are identified in Table 4.9-2 (Geocon 2019).

Table 4.9-2 Active Nearby Faults within 100 Miles of the Project Area

Fault Name	Approximate distance from Project Site (Miles)	Maximum Earthquake Magnitude, M ₃
Foothills Fault System	22	6.5
Great Valley, Segment 4	28	6.6
Great Valley, Segment 3	28	6.8
Great Valley, Segment 5	30	6.5
Hunting Creek - Berryessa	39	6.9
Concord – Green Valley	39	6.9
Great Valley, Segment 6	41	6.7
West Napa	49	6.5
Greenville	49	6.9

Source: Geocon 2019

Surface Fault Rupture

Surface rupture is the surface expression of movement along a fault. Structures built over an active fault can be torn apart if the ground underneath ruptures. The potential for surface rupture is based on the concepts of recency and recurrence. Surface rupture along faults is generally limited to a linear zone a few meters wide. The Alquist-Priolo Act (see the “Regulatory Setting” discussion above) was created to prohibit the location of structures designed for human occupancy across, or within 50 feet of, an active fault, thereby reducing the loss of life and property from an earthquake.

As described above, the fault closest to the site is the Foothills fault system, located about 22 miles west of the site. The Sacramento region of Northern California has a history of relatively low seismicity in comparison to more active seismic regions such as the Bay Area or Southern California. The two most commonly referenced earthquakes that resulted in some reported building damage in Downtown Sacramento are the Winters and Vacaville events in 1892. There are no reported occurrences of seismic-related ground failure in the Sacramento region due to earthquakes. (Geocon 2019).

Ground Shaking

The intensity of seismic shaking, or strong ground motion, during an earthquake depends on the distance and direction from the epicenter of the earthquake, the magnitude of the earthquake, and the geologic conditions of the surrounding area. Ground shaking could potentially result in the damage or collapse of buildings and other structures. An expected characteristic earthquake on the entire San Andreas Fault System is a Moment Magnitude scale (M_w) of 7.9 and is probably the largest earthquake that would be felt at the project site. Given the distance between the San Andreas Fault and the project site (approximately 80 miles), the felt intensity would be expected to be between Modified Mercalli Intensity (MMI) IV and V (light to moderate shaking) (Table 4.9-3). However, a felt

intensity between MMI VII and VIII would be caused by a characteristic earthquake on the Dunnigan Hills fault of Mw 6.6 because it is much closer to the project area.

Overall, the project site is located in an area of low earthquake hazard and therefore experiences low levels of ground shaking on an infrequent basis (CGS 2003).

Table 4.9-3 The Modified Mercalli Scale of Earthquake Intensities

Observed Effects	Intensity
Earthquake shaking not felt, but people may observe marginal effects of large-distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, liquids, and bodies of water sway slowly, or doors swing slowly.	I
Effect on people: Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.	II
Effect on people: Felt by most people indoors. Some can estimate duration of shaking, but many may not recognize shaking of building as caused by an earthquake; the shaking is like that caused by the passing of light trucks.	III
Effect on people: Felt by people indoors and some people outdoors. Other effects: Hanging objects swing. Structural effects: Windows or doors rattle. Wooden walls and frames creak.	IV
Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. Other effects: Hanging objects swing. Standing autos rock. Crockery clashes, dishes rattle, or glasses clink. Structural effects: Doors close, open, or swing. Windows rattle.	V
Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. Other effects: Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start, or change rate. Standing autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Structural effects: Weak plaster and Masonry D ¹ crack. Windows break. Doors close, open, or swing.	VI
Effect on people: Felt by everyone. Many are frightened and run outdoors. People walk unsteadily. Other effects: Small church or school bells ring. Pictures thrown off walls, and knickknacks and books are thrown off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle. Structural effects: Masonry D ¹ damaged; some cracks in Masonry C ¹ . Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets, and architectural ornaments fall. Concrete irrigation ditches damaged.	VII
Effect on people: Difficult to stand. Shaking noticed by auto drivers. Other effects: Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver. Structural effects: Masonry D ¹ heavily damaged; Masonry C ¹ damaged, partially collapses in some cases; some damage to Masonry B ¹ ; none to Masonry A ¹ . Stucco and some masonry walls fall. Chimneys, factory stacks, monuments, towers, elevated tanks twist or fall. Frame houses move on foundation if not bolted down; loose panel walls thrown out. Decayed piling broken off.	VIII
Effect on people: General fright. People thrown to ground. Other effects: Changes in flow or temperature of springs and wells. Cracks in wet ground and on steep slopes. Steering of autos affected. Branches broken from trees. Structural effects: Masonry D ¹ destroyed; Masonry C ¹ heavily damaged, sometimes with complete collapse; Masonry B is seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames cracked. Reservoirs seriously damaged. Underground pipes broken.	IX
Effect on people: General panic. Other effects: Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crater, and, in muddy areas, water fountains are formed. Structural effects: Mast masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes, and embankments. Railroads bent slightly.	X

Observed Effects	Intensity
Effect on people: General panic. Other effects: Large landslides. Water thrown on banks of canals, rivers, lakes, and so forth. Sand and mud shifted horizontally on beaches and flat land. Structural effects: General destruction of buildings. Underground pipelines completely out of service. Railroads bent greatly.	XI
Effect on people: General panic. Other effects: Same as for Intensities X and XI. Structural effects: Damage nearly total, the ultimate catastrophe. Other effects: Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.	XII

Notes:

¹ **Masonry definitions:**

- Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces.
- Masonry B: Good workmanship and mortar, reinforced.
- Masonry C: Good workmanship and mortar, unreinforced.
- Masonry D: Poor workmanship and mortar and weak materials, like adobe.

Liquefaction and Lateral Spreading

A common secondary hazard of strong ground shaking is the potential for soil liquefaction. Liquefaction describes a phenomenon in which saturated soil loses shear strength and deforms as a result of increased pore water pressure induced by strong ground shaking during an earthquake. Dissipation of the excess pore pressures will produce volume changes in the liquefied soil layer, which can manifest at the ground surface as settlement of structures, floating of buried structures, failure of retaining walls, lateral migration (lateral spreading), and extensional ground cracking of liquefied material. Factors known to influence liquefaction include soil type, structure, grain size, and relative density; confining pressure; depth to groundwater; and the intensity and duration of ground shaking. Soils most susceptible to liquefaction are saturated, loose, sandy soils.

Ground motions identified for the site are capable of generating liquefaction in loose granular soils. On the basis of nearby data and conditions encountered in the initial borings, the project site is underlain by predominately loose to medium/dense sand and gravel soils grading to denser soils at depth. Groundwater is documented to be approximately 15–21 feet bgs.

The site is not located in a currently established State of California Seismic Hazard Zone for liquefaction. However, soil and groundwater conditions exist at the site that may be susceptible to seismic-induced liquefaction under a seismic event. Analyses prepared for the *Geotechnical Investigation* determined that there is the potential for liquefaction at the site within apparently discontinuous, relatively thin sandy soil layers generally present between depths of approximately 15 to 40 feet. As previously described, consequences of liquefaction may include ground surface settlement, ground loss (sand boils), and lateral slope displacements (lateral spreading).

The Liquefaction Potential Index (LPI) is an index tool used to assess liquefaction hazard of surficial geologic units. The index assumes that the severity of liquefaction is proportional to three factors:

- ▶ Thickness of the liquefied layer;
- ▶ Proximity of the liquefied layer to the surface; and
- ▶ Amount by which the factor safety (FS) is less than 1.0, where FS is the ratio of the liquefaction resistance to the load imposed by the earthquake.

The estimated LPI at the project site ranges from approximately 0 to 1.5. Based on this criteria, there is a low potential for both sand boils and lateral spreading at the project site due to a liquefaction event (Geocon 2019).

PALEONTOLOGY SETTING

The project site is located in the Sacramento Valley at an elevation of 15 feet in the Sacramento River floodplain in downtown Sacramento. The depositional history of the Sacramento Valley during the late Quaternary period (1.6 million years ago to the present) included several cycles related to fluctuations in regional and global climate that caused alternating periods of deposition followed by periods of subsidence and erosion. Review of the geologic map prepared by Gutierrez (2011) indicates the project site is underlain by Holocene-age alluvium (Qha). The poorly to moderately sorted sand, gravel, and silt was deposited along the Sacramento River floodplain during the last 11,700 years. Holocene-age deposits, like the alluvial deposits underlying the project site, are considered to have a low paleontological potential because they are geologically immature and are unlikely to have fossilized the remains of organisms (fossilization processes take place over millions of years). Also, no unique geologic features are known to exist within the project site.

4.9.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The examination of geology and soils is based on information obtained from reviews of:

- ▶ the project description;
- ▶ available literature, including documents published by the City, Sacramento County, and State and federal agencies, and published information dealing with geotechnical conditions in the Sacramento area;
- ▶ applicable elements from the Sacramento County General Plan and the City of Sacramento General Plan; and
- ▶ the *Geotechnical Investigation* prepared for the Capitol Annex Project (Appendix F).

THRESHOLDS OF SIGNIFICANCE

An impact on geology and soils would be significant if implementation of the Capitol Annex Project would:

- ▶ directly or indirectly expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death through the rupture of a known earthquake fault; strong seismic ground shaking; seismic-related ground failure, including liquefaction; or landslides;
- ▶ result in substantial soil erosion or the loss of topsoil;
- ▶ locate project facilities on a geologic unit or soil that is unstable, or that would become unstable as a result of the Capitol Annex Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- ▶ locate project facilities on expansive soil, creating substantial direct or indirect risks to property;
- ▶ locate project facilities on soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or
- ▶ directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

ISSUES NOT DISCUSSED FURTHER

The topography of the project site in downtown Sacramento is flat. Therefore, there is little to no potential for lateral spreading and landslides. Therefore, impacts associated with lateral spreading and landslides are not discussed further in this Draft EIR.

The project site is an urban site that includes impervious surfaces and landscaping. Because project implementation would result in a similar landscape after construction is complete, and because the topography is flat, implementing the project would not generate the potential for substantial soil erosion or loss of topsoil. Nonetheless, grading, trenching, and excavation during construction can temporarily expose soil to erosive forces, such as wind and stormwater, which are addressed in Section 4.10, "Hydrology and Water Quality," of this Draft EIR.

As previously described in Section 4.9.2, "Paleontology Setting", the project site lies within the urban environment of downtown Sacramento, where underlying soils consist of Holocene alluvium deposits less than 11,700 years old. Objects must typically be older than the Holocene epoch to be considered a fossil; therefore, it is highly unlikely that soils underlying the project site contain unique paleontological resources. There are no unique geological features on the project site. Therefore, these topics will not be addressed further in this EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.9-1: Seismic Hazards

The project site is not located on any known faults or traces of active faults. Surface fault rupture, therefore, is extremely unlikely. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by ground shaking from earthquakes and to minimize secondary seismic hazards (i.e., ground lurching, liquefaction). Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to seismic hazards, nor would the project have the potential to exacerbate these hazards. This impact would be **less than significant**.

The project site is not located in an Alquist-Priolo Earthquake Fault Zone, and no mapped active or potentially active fault traces are known to traverse or project toward the site. Although the Sacramento area is located between three seismically active fault regions, the project site is not located on any known faults or traces of active faults. Surface fault rupture, therefore, is extremely unlikely. In the event of a major earthquake, people and structures would be exposed to moderate to severe ground shaking. Potential secondary effects of ground shaking at the project site include seismic shaking, liquefaction, and subsidence.

The potential for seismic shaking and the associated formation of cracks in the ground is considered greater at contacts between materials with substantially different properties, such as deep, soft soil and bedrock. These conditions were not found at the project site, and the probability of ground lurching and the formation of cracks in the ground during a seismic event is considered low.

Construction of the project would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by ground shaking from earthquakes. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to seismic hazards. In the case of the Annex, replacing the existing structure with a structure built to conform with current codes would increase resiliency to seismic events. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.9-2: Liquefaction

The loose to medium dense sand and gravel soils identified beneath the project site are considered to have a low potential for liquefaction. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by liquefaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to liquefaction. This impact would be **less than significant**.

The loose to medium dense sand and gravel soils beneath the project site may be susceptible to liquefaction, and potential liquefaction problems may exist throughout the downtown area where loose sands and silts are present below the groundwater table. However, there have been no reported instances of liquefaction occurring in downtown Sacramento during past major earthquake events. According to the preliminary findings of the *Geotechnical Investigation* (see Appendix F), there is a low potential for both sand boils and lateral spreading at the project site due to a liquefaction event (Geocon 2019). Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by liquefaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to liquefaction. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.9-3: Subsidence and Dynamic Compaction

The project site is not located in an area of potential subsidence and dynamic compaction. Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by subsidence and dynamic compaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to subsidence and dynamic compaction. This impact would be **less than significant**.

The soils beneath the project site are not susceptible to subsidence and dynamic compaction. Problems associated with subsidence and dynamic compaction may exist throughout the downtown area where unsaturated, loose granular material or uncompacted fill soils are present. As previously described under "Subsidence and Dynamic Compaction," above, the project site is underlain by dense to very dense/stiff to very stiff fills and native soils of medium stiff to stiff nonplastic to low plasticity silts. Because these soil types are not susceptible to these phenomena, the potential for subsidence and dynamic compaction is considered low.

Construction of the proposed facilities would conform to the current CBC, which contains specifications to minimize adverse effects on structures caused by subsidence and dynamic compaction. Through conformance with the CBC and implementation of site-specific engineering measures developed in compliance with these codes, development of the project would not result in exposure of people or structures to substantial adverse effects related to subsidence and dynamic compaction. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.9-4: Expansive Soils

The project site is located in an area where native soils may still exist at depths that could be encountered during project construction, and these soil types exhibit a range in shrink-swell potential from low to high. However, potentially expansive soils were not identified in borings taken at the project site. Through conformance with the CBC and implementation of applicable measures (if needed) to address shrink-swell soils, development of the project would not result in exposure of people or structures to substantial adverse effects from these soil types. This impact would be **less than significant**.

Initial borings at the project site identified soils of low-plasticity silts and sands. These soils do not exhibit expansive characteristics; therefore, the potential for expansive soils to affect the project is considered low (Geocon 2019). Further, the soils beneath the project site are not susceptible to expansion.

The proposed project includes two underground components, the visitor/welcome center and underground parking facility, which could be exposed to expansive soils if they are present. The new Annex would also include an underground level. In addition, underground wastewater and stormwater disposal infrastructure is present at the project site. As described in Section 4.10, "Hydrology and Water Quality," if insufficient infrastructure is present, infrastructure does not meet current building codes, or elements are in disrepair; upgraded, repaired, or improved systems would be constructed to support implementation of the project. It is not expected that shrink-swell soils would adversely affect underground facilities associated with the project. However, construction of project facilities would conform to the current CBC, which contains specifications to address shrink-swell soils where they might occur.

Through conformance with the CBC and implementation of applicable measures (if needed) to address shrink-swell soils, development of the project would not result in exposure of people or structures to substantial adverse effects from these soil types. This impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.10 HYDROLOGY AND WATER QUALITY

This section identifies the regulatory context and policies related to hydrology and water quality, describes the existing hydrologic conditions at the project site, and evaluates potential hydrology and receiving water quality impacts of the Capitol Annex Project. Potential effects on the capacity of City of Sacramento water supply, sewer/wastewater, and drainage/stormwater facilities are addressed in Section 4.4, "Utilities and Service Systems."

4.10.1 Regulatory Setting

FEDERAL

Clean Water Act

The U.S. Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) is the primary federal law that governs and authorizes water quality control activities by EPA, as well as the states. Various elements of the CWA address water quality. These are discussed below.

CWA Water Quality Criteria/Standards

Pursuant to federal law, EPA has published water quality regulations under 40 CFR. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the act, water quality standards consist of designated beneficial uses of the water body in question and criteria that protect the designated uses. Section 304(a) requires EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use. As described in the discussion of state regulations below, the State Water Resources Control Board (State Water Board) and its nine regional water quality control boards (RWQCBs) have designated authority in California to identify beneficial uses and adopt applicable water quality objectives.

CWA Section 303(d) Impaired Waters List

Under Section 303(d) of the CWA, states are required to develop lists of water bodies that do not attain water quality objectives after implementation of required levels of treatment by point source dischargers (municipalities and industries). Section 303(d) requires that the state develop a total maximum daily load (TMDL) for each of the listed pollutants. The TMDL is the amount of the pollutant that the water body can receive and still comply with water quality objectives. The TMDL is also a plan to reduce loading of a specific pollutant from various sources to achieve compliance with water quality objectives. In California, implementation of TMDLs is achieved through water quality control plans, known as Basin Plans, of the RWQCBs. See the "State" section, below.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. NPDES permit regulations have been established for broad categories of discharges including point source waste discharges and nonpoint source stormwater runoff. Each NPDES permit identifies limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits.

"Nonpoint source" pollution originates over a wide area rather than from a definable point. Nonpoint source pollution often enters receiving water in the form of surface runoff and is not conveyed by way of pipelines or discrete conveyances. Two types of nonpoint source discharges are controlled by the NPDES program: discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems. The goal of the NPDES nonpoint source regulations is to improve the quality of stormwater discharged to receiving waters to the maximum extent practicable. The RWQCBs in California are responsible for implementing the NPDES permit system (see the "State" section, below).

National Flood Insurance Act

The Federal Emergency Management Agency (FEMA) is tasked with responding to, planning for, recovering from and mitigating against disasters. The Federal Insurance and Mitigation Administration within FEMA is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that aid with mitigating future damages from natural hazards.

FEMA prepares Flood Insurance Rate Maps (FIRMs) that delineate the regulatory floodplain to assist local governments with the land use planning and floodplain management decisions needed to meet the requirements of NFIP. Floodplains are divided into flood hazard areas, which are areas designated per their potential for flooding, as delineated on FIRMs. Special Flood Hazard Areas are the areas identified as having a 1-percent chance of flooding in each year (otherwise known as the 100-year flood). In general, the NFIP mandates that development is not to proceed within the regulatory 100-year floodplain, if the development is expected to increase flood elevation by 1 foot or more.

STATE

Porter-Cologne Water Quality Control Act

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Board and each of the nine RWQCBs power to protect water quality and is the primary vehicle for implementation of California's responsibilities under the CWA. The applicable RWQCB for the proposed project is the Central Valley RWQCB. The State Water Board and the Central Valley RWQCB have the authority and responsibility to adopt plans and policies, regulate discharges to surface water and groundwater, regulate waste disposal sites, and require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substances, sewage, or oil or petroleum products.

Under the Porter-Cologne Act, each RWQCB must formulate and adopt a water quality control plan (known as a "Basin Plan") for its region. The Basin Plan for the Central Valley Region includes a comprehensive list of water bodies within the region and detailed language about the components of applicable Water Quality Objectives (WQOs). The Basin Plan recognizes natural water quality, existing and potential beneficial uses, and water quality problems associated with human activities throughout the Sacramento and San Joaquin River Basins. Through the Basin Plan, the Central Valley RWQCB executes its regulatory authority to enforce the implementation of TMDLs, and to ensure compliance with surface WQOs. The Basin Plan includes both narrative, and numerical WQOs designed to provide protection for all designated and potential beneficial uses in all its principal streams and tributaries. Applicable beneficial uses include municipal and domestic water supply, irrigation, noncontact and contact water recreation, groundwater recharge, freshwater replenishment, hydroelectric power generation, and preservation and enhancement of wildlife, fish, and other aquatic resources.

The Central Valley RWQCB also administers the adoption of waste discharge requirements, manages groundwater quality, and adopts projects within its boundaries under the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (General Permit).

NPDES Construction General Permit for Stormwater Discharges Associated with Construction Activity

The State Water Board adopted the statewide NPDES General Permit in August 1999. The state requires that projects disturbing more than 1 acre of land during construction file a Notice of Intent with the RWQCB to be covered under this permit. Construction activities subject to the General Permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must include best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

NPDES Stormwater Permit for Discharges from Small Municipal Separate Storm Sewer Systems

The Municipal Stormwater Permitting Program regulates stormwater discharges from municipal separate storm sewer systems (MS4s). Stormwater is runoff from rain or snow melt that runs off surfaces such as rooftops, paved streets, highways or parking lots and can carry with it pollutants, such as oil, pesticides, herbicides, sediment, trash, bacteria and metals. The runoff can then drain directly into a local stream, lake or bay. Often, the runoff drains into storm drains which eventually drain untreated into a local water body.

MS4 permits are issued in two phases: Phase I, for medium and large municipalities, and Phase II for small ones. Most Phase I permits are issued to a group of co-permittees encompassing an entire metropolitan area. These permits are reissued as the permits expire. The Phase I MS4 permits require the discharger to develop and implement a Stormwater Management Plan/Program with the goal of reducing the discharge of pollutants to the maximum extent practicable, which is the performance standard specified in Section 402(p) of the CWA. The management programs specify what BMPs will be used to address certain program areas.

The Capitol Annex project site lies within downtown Sacramento, which is covered under a Phase I permit. The City of Sacramento (City), along with the Cities of Citrus Heights, Elk Grove, Folsom, Galt, and Rancho Cordova, was reissued an NPDES areawide MS4 permit to discharge stormwater runoff from storm drains within their jurisdictions (Central Valley RWQCB Order No. R5-2015-0023, NPDES Permit No. CAS082597). Stormwater flow from the project site discharges to the City's combined sewer system (CSS) and is therefore regulated through this NPDES permit.

California Water Code

The California Water Code is enforced by the California Department of Water Resources (DWR). The mission of DWR is "to manage the water resources of California in cooperation with other agencies, to benefit the State's people, and to protect, restore, and enhance the natural and human environments." DWR is responsible for promoting California's general welfare by ensuring beneficial water use and development statewide.

Groundwater Management

Groundwater Management is outlined in the California Water Code, Division 6, Part 2.75, Chapters 1–5, Sections 10750 through 10755.4. The Groundwater Management Act was first introduced in 1992 as AB 3030 and has since been modified by SB 1938 in 2002, AB 359 in 2011, and the Sustainable Groundwater Management Act (SGMA) (SB 1168, SB 1319, and AB 1739) in 2014. The intent of the acts is to encourage local agencies to work cooperatively to manage groundwater resources within their jurisdictions and to provide a methodology for developing a Groundwater Management Plan.

The SGMA became law on January 1, 2015, and applies to all groundwater basins in the state (Water Code Section 10720.3). By enacting the SGMA, the legislature intended to provide local agencies with the authority and the technical and financial assistance necessary to sustainably manage groundwater within their jurisdiction (Water Code Section 10720.1).

Pursuant to the SGMA, any local agency that has water supply, water management or land use responsibilities within a groundwater basin may elect to be a "groundwater sustainability agency" for that basin (Water Code Section 10723). The Sacramento Central Groundwater Authority has notified DWR that it has elected to become a GSA pursuant to Water Code Section 10723.8, and intends to undertake sustainable groundwater management in area roughly coincident with the Sacramento Valley Groundwater Basin, South American Subbasin.

Central Valley Flood Protection Act

The Central Valley Flood Protection Act of 2008 establishes the 200-year flood event as the minimum level of protection for urban and urbanizing areas. As part of the state's FloodSAFE program, those urban and urbanizing areas protected by flood control project levees must receive protection from the 200-year flood event level by 2025. DWR and the Central Valley Flood Protection Board (CVFPB) collaborated with local governments and planning agencies to prepare the 2012 Central Valley Flood Protection Plan (CVFPP) (DWR 2012), which the CVFPB adopted on June 29, 2012. The objective of the 2012 CVFPP is to create a system-wide approach to flood management and

protection improvements for the Central Valley and San Joaquin Valley. The Central Valley Flood Protection Act calls for updates to the CVFPP every 5 years. In 2017, a CVFPP update was prepared and adopted by the CVFPB on August 25, 2017. The 2017 update includes recommendations on investments and policies to support comprehensive flood risk management actions locally, regionally, and system-wide, rather than promoting specific projects (DWR 2017).

State Plan of Flood Control

Section 9110(f) of the California Water Code defines the State Plan of Flood Control as follows:

“State Plan of Flood Control” means the state and federal flood control works, lands, programs, plans, policies, conditions, and mode of maintenance and operations of the Sacramento River Flood Control Project described in Section 8350, and of flood control projects in the Sacramento River and San Joaquin River watersheds authorized pursuant to Article 2 (commencing with Section 12648) of Chapter 2 of Part 6 of Division 6 for which the board or the department has provided the assurances of nonfederal cooperation to the United States, and those facilities identified in Section 8361.

The State Plan of Flood Control encompasses a wide network of facilities, which range from major structures such as levees, drainage pumping plants, drop structures, dams and reservoirs, and major channel improvements, to minor components such as stream gauges, pipes, and bridges.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, “Land Use and Planning,” of this Draft EIR, in Section 4.2.1 “Regulatory Setting,” the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project’s consistency with local plans, policies, and regulations.

City of Sacramento General Plan

The following goals and policies from the Sacramento 2035 General Plan Utilities Element relate to stormwater and wastewater management.

GOAL U 4.1: Adequate Stormwater Drainage. Provide adequate stormwater drainage facilities and services that are environmentally sensitive, accommodate growth, and protect residents and property.

- ▶ **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.
- ▶ **Policy U 4.1.4: Watershed Drainage Plans.** The City shall require developers to prepare watershed drainage plans for proposed developments that define needed drainage improvements per City standards, estimate construction costs for these improvements, and comply with the City’s National Pollutant Discharge Elimination System (NPDES) permit.
- ▶ **Policy U 4.1.5: Green Stormwater Infrastructure.** The City shall encourage “green infrastructure” design and Low Impact Development (LID) techniques for stormwater facilities (i.e., using vegetation and soil to manage stormwater) to achieve multiple benefits (e.g., preserving and creating open space, improving runoff water quality).
- ▶ **Policy U 4.1.6: New Development.** The City shall require proponents of new development to submit drainage studies that adhere to City stormwater design requirements and incorporate measures, including “green infrastructure” and Low Impact Development (LID) techniques, to prevent on- or off-site flooding.

GOAL ER 1.1: Water Quality. Protect local watersheds, water bodies, and groundwater resources, including creeks, reservoirs, the Sacramento and American Rivers, and their shorelines.

- ▶ **Policy ER 1.1.3: Stormwater Quality.** The City shall control sources of pollutants and improve and maintain urban runoff water quality through storm water protection measures consistent with the City's NPDES Permit.
- ▶ **Policy 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.
- ▶ **Policy ER 1.1.5: Limit Stormwater Peak Flows.** The City shall require all new development to contribute no net increase in stormwater runoff peak flows over existing conditions associated with a 100-year storm event.
- ▶ **Policy ER 1.1.6: Post-Development Runoff.** The City shall impose requirements to control the volume, frequency, duration, and peak flow rates and velocities of runoff from development projects to prevent or reduce downstream erosion and protect stream habitat.
- ▶ **Policy ER 1.1.7: Construction Site Impacts.** The City shall minimize disturbances of natural water bodies and natural drainage systems caused by development, implement measures to protect areas from erosion and sediment loss, and continue to require construction contractors to comply with the City's erosion and sediment control ordinance and stormwater management and discharge control ordinance.

GOAL EC 2.1: Flood Protection. Protect life and property from flooding.

- ▶ **Policy EC 2.1.8: Floodplain Requirements.** The City shall regulate development within floodplains in accordance with State and Federal requirements and maintain the City's eligibility under the National Flood Insurance Program.
- ▶ **Policy EC 2.1.11: New Development.** The City shall require evaluation of potential flood hazards prior to approval of development projects.

Grading, Erosion, and Sediment Control Design Manual

The City's policies and design standards for grading, erosion and sediment control measures are driven collectively by the regulations within the Regional MS4 Permit, as well as Ordinance 93-068 and the City of Sacramento Design and Procedures Manual. The City's policies and design standards are consistent with those in the General Permit, but applicants are still required to comply with the General Permit if it is applicable to their project. These policies and design standards are outlined in the Administrative and Technical Procedures for Grading, and Erosion and Sediment Control, which provides guidance and minimum standards for use in grading design, and temporary erosion and sediment control measures to be used during construction (City of Sacramento 2013).

Sacramento Central Groundwater Authority

The Sacramento Central Groundwater Authority developed the Central Sacramento County Groundwater Management Plan to assist water providers in maintaining a safe, sustainable, and high-quality groundwater resource within the extent of the groundwater basin (SCWA 2006). Five Best Management Objectives outlined in the plan are used to achieve that central goal:

1. maintain a long-term average groundwater extraction rate of 273,000 acre-feet per year,
2. establish specific minimum groundwater elevations within all areas of the basin consistent with the Water Forum "Solution,"
3. protect against any potential inelastic land surface subsidence,
4. protect against any adverse impacts on surface water flows, and
5. develop specific water quality objectives for several constituents of concern.

Sacramento Area Flood Control Agency

The Sacramento Area Flood Control Agency was formed in 1989 to address the Sacramento area's vulnerability to catastrophic flooding. Its mission is to minimize flood risk potential while preserving the environment, and enhancing floodway and floodplains. This vulnerability was exposed during the record flood of 1986 when Folsom Dam exceeded its normal flood control storage capacity and several area levees nearly collapsed under the strain of the storm. In response, the City of Sacramento, Sacramento County, Sutter County, the American River Flood Control District, and Reclamation District No. 1000 created the Sacramento Area Flood Control Agency through a Joint Exercise of Powers Agreement to provide the Sacramento region with increased flood protection along the American and Sacramento Rivers.

City of Sacramento Comprehensive Flood Management Plan

Because of the city's high flood risk and vulnerability, the City developed a Comprehensive Flood Management Plan to guide the City's flood risk reduction and mitigation efforts. The plan was initiated by the City's Department of Utilities and serves as the City's strategic plan to reduce flood risk over the planning period (2016– 2021).

4.10.2 Environmental Setting

HYDROLOGY AND DRAINAGE

Regional Hydrology

The primary watershed within Sacramento County is the Sacramento River Basin, which encompasses 26,500 square miles and is bound by the Sierra Nevada to the east, the Coast Ranges to the west, the Cascade Range and Trinity Mountains to the north, and the Sacramento–San Joaquin Delta (Delta) lands to the south. The Sacramento River Basin is the largest river basin in California, capturing roughly one-third of the total surface runoff in the state, and draining an average of approximately 21.9 million acre-feet per year (USGS 2000). Rain and snow support late autumn, winter, and spring flows, and melting of the winter snowpack is the primary source of flows during the summer and early fall months. Within the Sacramento River Basin, there are several subbasins or smaller watersheds that drain to the tributaries of the Sacramento River (Figure 4.10-1).

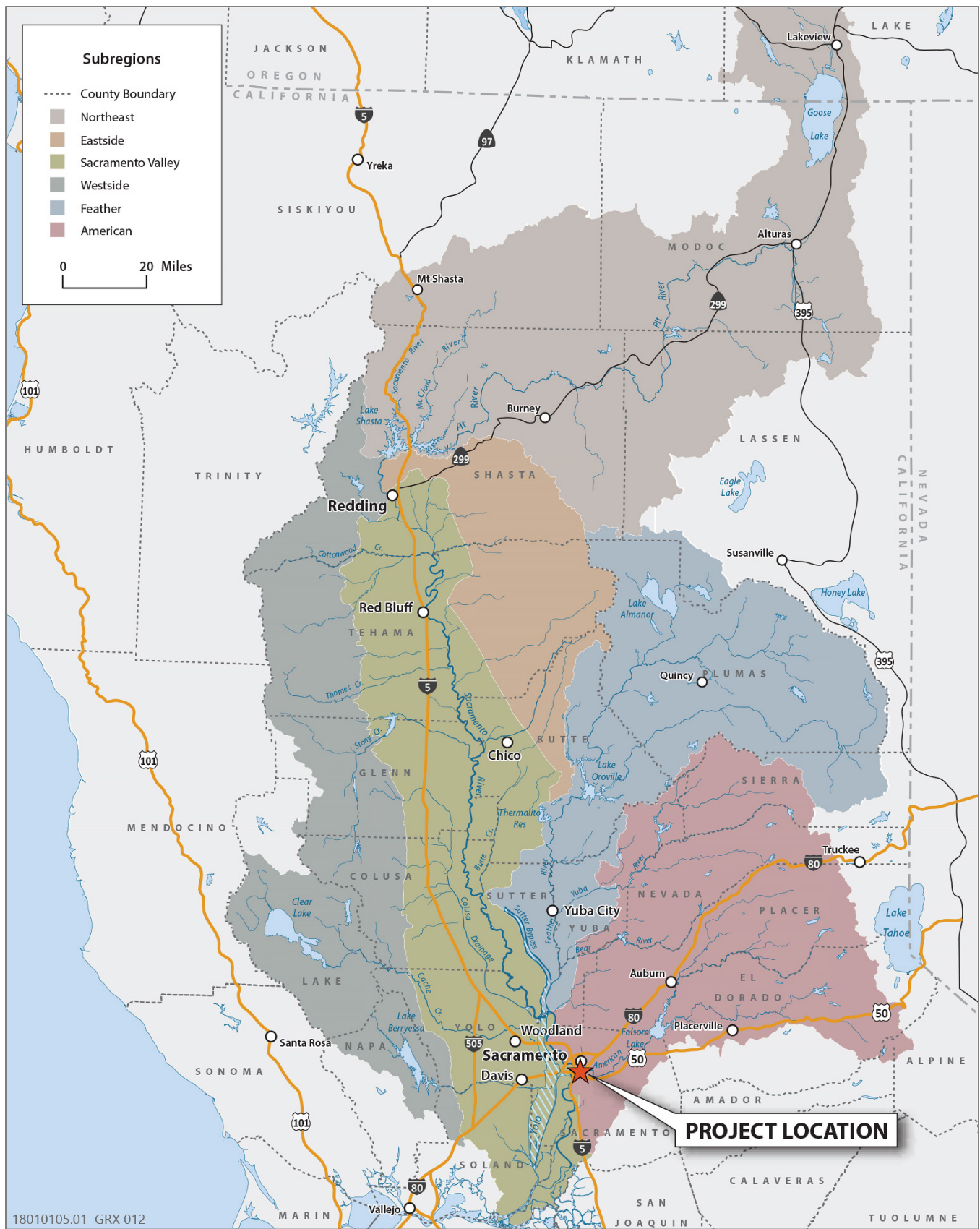
The Sacramento River originates in the mountains and plateaus of far northern California and flows south through the Sacramento Valley. As the river approaches downtown Sacramento, it is joined by the American River from the east, and then flows under Tower Bridge and I-80 in downtown Sacramento. Upstream from downtown Sacramento, the Sacramento Weir is situated to relieve floodwaters from the Sacramento River, sending them south via the Yolo Bypass, to enter the Delta near Rio Vista. The region of the Sacramento River below the I Street Bridge is considered part of the Delta (California Water Code Section 1220). Forty miles south of the Sacramento area, the Sacramento River joins the San Joaquin River, and waters from both rivers drain into San Francisco Bay.

Local Hydrology

The project site is in the city of Sacramento on low-lying lands approximately 0.75-mile east of the Sacramento River and approximately 1.75 miles south of the American River. The site is downstream (south) of the confluence of the Sacramento and American Rivers. The project site is in an urbanized area and has no direct connection to streams, creeks, or other hydrologic features.

Stormwater Drainage

At a broad scale, storm drainage is comprised of overland sheet flow generated diffusely throughout a watershed by precipitation and channeled, ultimately, to natural drainageways. In local urban neighborhoods and communities in Sacramento County, drainage is primarily conveyed by engineered drainage systems consisting of pipes, gutters, swales, ditches, and graded land. These engineered systems are designed to control the quantity and quality of storm drainage produced in urban areas and manage it in a controlled manner such that it produces less harm to natural water bodies.



Source: Sacramento River Watershed Program 2010

Figure 4.10-1 Sacramento River Basin Watershed

Stormwater at the project sites is collected by the CSS and conveyed to one of two facilities for primary treatment before discharge to the Sacramento River. CSS flows and discharges are currently regulated by the provisions of Waste Discharge Requirement Order No. R5-2015-0045 (NPDES No. CA0079111). Direct stormwater discharges to the Sacramento River are not permitted unless the total combined capacity of the CSS (380 million gallons per day) is exceeded during an extreme high-flow event. Section 4.4, "Utilities and Infrastructure," contains further details relating to the operation and capacity of the CSS.

Flood Conditions

Sacramento County has an extensive system of dams, levees, weirs, pumping plants, and flood control bypass channels along the Sacramento and American Rivers to provide flood control. These facilities can control floodwaters by regulating the amount of water passing through reaches of the river. The amount of water flowing through the river system can be controlled locally by Folsom Dam on the American River and the reserve overflow area of the Yolo Bypass on the Sacramento River.

Downtown Sacramento is within the natural floodplain of the Sacramento River, with a 1-percent risk of flooding in any given year (100-year floodplain) (FEMA 2017). However, the flood risk is reduced in downtown Sacramento, including the project sites (Figure 4.10-2), by the system of levees maintained under the State Plan of Flood Control.

Groundwater Hydrology

The project site is located within the South American Groundwater Subbasin of the Sacramento Valley Groundwater Basin, as defined in the DWR Bulletin 118 (DWR 2004). The South American Subbasin is bounded by the Sierra Nevada on the east, the Sacramento River on the west, the American River to the north, and the Cosumnes and Mokelumne rivers on the south.

Sacramento is underlain by geologic formations that include an upper, unconfined aquifer system (able to receive water that infiltrates from the surface) and a lower semiconfined aquifer system (infiltration of water can be partially blocked by impermeable layers). Depth to groundwater in the downtown area varies seasonally, is relatively shallow (less than 10 feet to the water table in some areas), with no predominant direction of groundwater flow (SCGA 2012).

WATER QUALITY

Surface Water Quality

The most extensive water quality monitoring programs and data sets of the Sacramento River near Sacramento include the Coordinated Monitoring Program conducted by the City of Sacramento and Sacramento County, the Sacramento River Watershed Program, and the U.S. Geological Survey (USGS) National Water Quality Assessment Program for the Sacramento River Basin.

Designated beneficial uses for the Sacramento River near the project site, include:

- ▶ municipal and agricultural supply,
- ▶ contact and noncontact recreation,
- ▶ coldwater fish habitat and spawning,
- ▶ warmwater fish habitat and spawning,
- ▶ wildlife habitat, and
- ▶ navigation.



Source: Data provided by FEMA in 2017

Figure 4.10-2 Flood Zones

The Sacramento River, from Knights Landing to the Delta, is included on the CWA Section 303(d) list of impaired waters for chlordane, dichlorodiphenyltrichloroethane (DDT), dieldrin, mercury, polychlorinated biphenyls (PCBs), and unknown toxicity (toxicity to various biological indicators exhibited through standardized toxicity tests), based on the assessment provided in the 2012 Integrated Report of data collected under the Sacramento River Watershed Program and the San Francisco Bay Delta and Tributaries Project (Central Valley RWQCB 2012). Chlordane, DDT, and dieldrin are insecticides used in agriculture; PCBs are found in a wide variety of industrial applications; and mercury is a byproduct of gold mining.

Measurements taken at the USGS Freeport monitoring station on the Sacramento River by the Coordinated Monitoring Program and USGS indicate that for many generic water quality parameters, the Sacramento River generally has good water quality that is low in common pollutants that are used as indicators of overall river health. The data indicate that the river is low in total dissolved solids, has neutral pH, moderate alkalinity, and adequate dissolved oxygen levels for aquatic organisms. The water from the river is also generally low in nutrients (nitrogen and phosphorus) that can cause nuisance algae and aquatic vascular plant growth. Total organic carbon concentrations often exceed Safe Drinking Water Act thresholds that can potentially trigger additional treatment requirements at municipal treatment plants. The river concentrations of *E. coli* and fecal coliform concentrations are typically low in dry-weather conditions and elevated in the winter runoff period, resulting in general conformance to long-term mean Basin Plan objectives. Trace metal content is generally low in the river, except for mercury, which is a legacy pollutant from historic mining operations.

While pesticides have been detected and resulted in Section 303(d) listing of the Sacramento River for such constituents, there are no applicable regulatory criteria established for pesticides that have been exceeded. (Central Valley RWQCB 2012). TMDL criteria for the Sacramento River watershed have been established through the Section 303(d) evaluation and listing process.

Groundwater Quality

Groundwater quality can be affected by many things, but the chief controls on the characteristics of groundwater quality are the source and chemical composition of recharge water, properties of the host sediment, and history of discharge or leakage of pollutants. Groundwater quality impairments in the central Sacramento area are primarily related to urban source contamination.

The Sacramento region contains known areas of substantial groundwater pollution, including groundwater plumes beneath the former McClellan Air Force Base, the former Mather Air Force Base, and the Aerojet property south of US 50 in Rancho Cordova. Additionally, contaminant plumes are associated with the former Southern Pacific and Union Pacific Railyards, located east of the Capitol Building and along the American River (downtown Sacramento) (City of Sacramento 2014). Because evidence of groundwater contamination at the project site was identified during preparation of the Phase I Environmental Site Assessment for the project (Appendix G), standard protective measures are recommended as described Section 4.11, "Hazards and Hazardous Materials."

4.10.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential hydrologic and water quality impacts is based on a review of existing documents and studies that address water resources in the vicinity of the project. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify potential environmental effects, based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that the project would comply with relevant federal, state, and local laws, ordinances, and regulations.

THRESHOLDS OF SIGNIFICANCE

An impact on hydrology or water quality is considered significant if implementation of the Capitol Annex Project would do any of the following:

- ▶ violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;
- ▶ substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- ▶ substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would
 - result in substantial erosion or siltation on- or off-site;
 - substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site; or
 - create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- ▶ in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or
- ▶ conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

ISSUES NOT DISCUSSED FURTHER

The project's contribution of stormwater and wastewater to the City's CSS and the project's impact on the capacity and infrastructure of the CSS are addressed in Section 4.4, "Utilities and Infrastructure." The water use for the project, and therefore the potential to contribute to groundwater depletion, is also addressed in Section 4.4.

Although downtown Sacramento is within the natural floodplain of the Sacramento River, with a 1-percent risk of flooding in any given year (100-year floodplain), the FEMA FIRM indicates that the flood risk is reduced in downtown Sacramento, including the project site, due to levees and the overall flood protection system (Figure 4.10-2). The project would not place structures, including housing, in a flood hazard area. Therefore, the project would have no impact related to flood hazards and this issue is not evaluated further.

The city is not within an area subject to seiche or tsunami; therefore, these issues are not evaluated further.

As described in the discussion of Impact 4.10-1, below, implementation of the project would include compliance with existing regulations relating to stormwater controls, including SWPPP BMPs and design standards set forth in the City's Stormwater Quality Design Manual for the Sacramento Region. Compliance with these standards and regulations would ensure that the project would neither conflict with nor obstruct any applicable water quality control plan, including the Water Quality Control Plan for the Central Valley RWQCB and the Central Sacramento County Groundwater Management Plan (Central Valley RWQCB 2018; SCWA 2006). As discussed above, the project's potential to impact groundwater for water supply is addressed in Section 4.4, "Utilities and Service Systems," and standard protective measures related to encountering groundwater contamination are addressed in Section 4.11, "Hazards and Hazardous Materials."

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.10-1: Construction-Related Water Quality Impacts

Project construction would require ground-disturbing activities, which could lead to erosion and sedimentation, and possible exposure of the groundwater table. Stormwater or groundwater contact with construction materials could lead to degradation of water quality. Compliance with existing regulations relating to stormwater controls, including adherence to SWPPP BMPs and implementation of relevant design standards in the Stormwater Quality Design Manual for the Sacramento Region would result in a **less-than-significant** water quality impact.

Implementation of the project would include demolition of the existing Annex and construction of a new Annex building, construction of a new underground visitor/welcome center, and removal of existing underground parking under the Annex and construction of a new underground parking structure within the project site. As a result, the project site would be subject to ground disturbing activities for underground facilities, building foundations, utility connections, and other site improvements such as landscaping. Excavation of soils could intersect with shallow groundwater and require dewatering.

Materials such as aggregate-base rock for facility subgrades, sand bedding and backfill for utility lines, and crushed rock for building foundations would be brought to the project sites. Imported or excavated material could become exposed to stormwater and potentially result in contamination of surface water, or could directly connect with and contaminate groundwater. Other construction materials, including fuels, lubricants, oil, grease, and paint contain toxic and hazardous substances. These materials could also become exposed to stormwater runoff or to groundwater if there are construction activities where the groundwater table is breached. Multiple small incidents of contamination, or larger single releases (e.g., fuel spill) could result in adverse effects on surface and groundwater quality.

Before construction, DGS would obtain coverage under, and comply with, the NPDES General Permit. In compliance with the General Permit, a SWPPP would be prepared detailing measures to control soil erosion and waste discharges from project construction areas. All contractors conducting construction-related work would be required to implement the SWPPP to control soil erosion and waste discharges. The general contractor(s) and subcontractor(s) conducting the work would be responsible for implementing all BMPs detailed in the SWPPP.

The SWPPP would identify the grading and erosion-control BMPs and specifications necessary to avoid and minimize water quality impacts to the extent practicable. Standard erosion control measures (including management and structural controls) would be required to be implemented for all construction activities that expose soil. Fill and grading materials brought in from off-site would be clean, chemically inert, and handled with appropriate containment to prevent contamination of stormwater. Grading operations would be required to eliminate direct routes for conveying potentially contaminated runoff to the CSS. Erosion control barriers such as silt fences and mulching material would be installed. The SWPPP would contain specific measures for stabilizing soils before the onset of the winter rainfall season. Implementation of these standard erosion-control measures would reduce the potential for soil erosion and sedimentation of stormwater runoff during construction.

If dewatering is required, the SWPPP would include a dewatering plan, which would establish measures to treat groundwater pumped from the construction site before release, and to prevent/minimize sediment and contaminant releases into groundwater during excavation, as well as methods to clean up releases if they occur. Measures to prevent/minimize releases of sediment and contaminants into groundwater during excavation and methods of cleaning up releases may include using temporary berms or dikes to isolate construction activities; using vacuum trucks to capture contaminant releases; and maintaining absorbent pads and other containment and cleanup materials on-site to allow an immediate response to contaminant releases if they occur.

In addition, the City's Stormwater Management and Discharge Control Ordinance requires projects to minimize or eliminate sediment and pollutants in construction site stormwater discharges. While the State is not subject to local regulations, JRC] would, in the exercise of its discretion, prepare an erosion, sediment, and pollution-control plan, or its equivalent, for construction and post-construction activities, and would comply with all applicable regulations and industry-standard practices for protection of surface water and groundwater quality.

Because DGS and the JRC would comply with the above-described laws and regulations designed to be protective of water quality, the release of soil or other contaminant materials into water bodies during construction would be avoided and/or minimized. Impacts on surface water and groundwater quality resulting from project construction would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.10-2: Substantially Alter the Existing Drainage Pattern of the Site or Area, Resulting in Substantial Erosion, Siltation, Flooding, or Additional Sources of Polluted Runoff

Implementation of the Capitol Annex Project could result in minor increases to impervious surfaces which could alter the drainage patterns at the project site. However, given that overall changes in the amount and location of impervious surface would be small, and that a grading plan and drainage plan would be implemented as part of the project, any changes to the site drainage pattern would not result in new sources of erosion, siltation, flooding, or polluted runoff. This impact would be **less than significant**.

The volume and rate of stormwater runoff generated from an area is affected by development through conversion of vegetated or pervious surfaces to impervious surfaces and by the development of drainage systems that connect these impervious surfaces to streams or other water bodies. In this way, development can increase the rate of runoff and eliminate storage, detention, and infiltration that would naturally occur along drainage paths. As water runs off the land surface, it collects and carries materials and sediment, which can be potentially harmful to downstream receiving waters. Additionally, runoff from impervious surfaces can become concentrated, overwhelming existing storm drain systems, causing erosion and increasing sediment transport, downstream deposition, and flooding in lower watershed areas.

Natural drainage features within the site consist of landscaping and grass areas. Any additional runoff not absorbed by natural drainage features is currently collected by a series of connected, catch basins and drainage inlets that convey runoff to the existing CSS pipeline currently serving the Historic Capitol and Annex. Demolition of the existing Annex and construction of the new Annex building, visitor/welcome center, and parking garage would occur on portions of the site that are both pervious and impervious (i.e., paved walkways and landscape). Prior to demolition of the Annex and construction of the new underground structures, all catch basins and drainage inlets would be removed, and the existing drainage pattern and conveyance would be temporarily capped. While existing stormwater/drainage features on the site and connections to the CSS would be maintained, any necessary upgrades would be installed as needed per code and project requirements.

Once construction is complete, the areas above the new underground visitor/welcome center and parking structure would be restored to near the original condition with little change in overall impervious surface. Similarly, the replacement of the existing Annex with the new Annex would result in only a small increase in impervious surface.

Project implementation would include a grading plan to direct stormwater away from buildings and to appropriately sized storm grates and other collection features. The project will also include implementation of a drainage plan that would include a new storm drainage system that would be designed and installed at the project site to capture storm water generated by the new impervious surfaces. Implementation of a drainage plan would ensure that sufficient drainage is maintained within the project site once construction is complete. Stormwater runoff would continue to be collected by the City's CSS and treated prior to discharge to the Sacramento River (see Section 4.4, "Utilities and Infrastructure").

Although the State is not required to adhere to local plans and policies for the project, DGS and the JRC is committed to developing the project consistent with local City ordinances regulating site drainage and stormwater control. The State would implement the prescriptions established in the *Stormwater Quality Design Manual* regarding long-term design standards and elements. Implementation of these measures would provide adequate protection against

adverse erosion or sedimentation impacts from new drainage patterns at the project site and generation of polluted runoff entering the CSS.

Given these factors, implementation of the project would not substantially alter the drainage pattern of the project site and any alterations would not result in substantial erosion, siltation, flooding, exceedance of stormwater drainage systems, or additional sources of polluted runoff. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

4.11 HAZARDOUS MATERIALS AND PUBLIC HEALTH

This section describes the potential impacts of the Capitol Annex Project related to hazardous materials and public health. The evaluation provided in this section is based on a data search of various agency lists, review of available documents, and the Phase I environmental site assessment (ESA) completed for the project site by Geocon Consultants (Geocon) (Geocon 2019) (Appendix G).

4.11.1 Regulatory Setting

FEDERAL

Management of Hazardous Materials

Various federal laws address the proper handling, use, storage, and disposal of hazardous materials, as well as require measures to prevent or mitigate injury to health or the environment if such materials are accidentally released. The U.S. Environmental Protection Agency (EPA) is the agency primarily responsible for enforcement and implementation of federal laws and regulations pertaining to hazardous materials. Applicable federal regulations pertaining to hazardous materials are primarily contained in 29, 40, and 49 CFR. Hazardous materials, as defined in the CFR, are listed in 49 CFR 172.101. Management of hazardous materials is governed by the following laws:

- ▶ The Toxic Substances Control Act of 1976 (15 U.S. Code [USC] Section 2601 et seq.) regulates the manufacturing, inventory, and disposition of industrial chemicals, including hazardous materials. Section 403 of the Toxic Substances Control Act establishes standards for lead-based paint (LBP) hazards in paint, dust, and soil.
- ▶ The Resource Conservation and Recovery Act of 1976 (42 USC 6901 et seq.) (RCRA) is the law under which EPA regulates hazardous waste from the time the waste is generated until its final disposal (“cradle to grave”).
- ▶ The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (also called the Superfund Act or CERCLA) (42 USC 9601 et seq.) gives EPA authority to seek out parties responsible for releases of hazardous substances and ensure their cooperation in site remediation.
- ▶ The Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499; 42 USC, Chapter 116), also known as SARA Title III or the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA), imposes planning requirements regarding hazardous materials to help protect local communities in the event of accidental release.
- ▶ The Spill Prevention, Control, and Countermeasure (SPCC) rule includes requirements for oil spill prevention, preparedness, and response to prevent oil discharges to navigable waters and adjoining shorelines. The rule requires specific facilities to prepare, amend, and implement SPCC plans. The SPCC rule is part of the Oil Pollution Prevention regulation, which also includes the Facility Response Plan rule.

Transport of Hazardous Materials

The U.S. Department of Transportation regulates transport of hazardous materials between states and is responsible for protecting the public from dangers associated with such transport. The federal hazardous materials transportation law, 49 USC 5101 et seq. (formerly the Hazardous Materials Transportation Act, 49 USC 1801 et seq.) is the basic statute regulating transport of hazardous materials in the United States. Hazardous materials transport regulations are enforced by the Federal Highway Administration, the U.S. Coast Guard, the Federal Railroad Administration, and the Federal Aviation Administration.

Worker Safety

The federal Occupational Safety and Health Administration (OSHA) is the agency responsible for ensuring worker safety in the handling and use of chemicals identified in the Occupational Safety and Health Act of 1970 (Public Law 91-596, 9

USC 651 et seq.). OSHA has adopted numerous regulations pertaining to worker safety, contained in 29 CFR. These regulations set standards for safe workplaces and work practices, including standards relating to the handling of hazardous materials and those required for excavation and trenching.

STATE

Management of Hazardous Materials

In California, both federal and State community right-to-know laws are coordinated through the Governor's Office of Emergency Services. The federal law, SARA Title III or EPCRA, described above, encourages and supports emergency planning efforts at the State and local levels and provides local governments and the public with information about potential chemical hazards in their communities. Because of the community right-to-know laws, information is collected from facilities that handle (e.g., produce, use, store) hazardous materials above certain quantities. The provisions of EPCRA apply to four major categories:

- ▶ emergency planning,
- ▶ emergency release notification,
- ▶ reporting of hazardous chemical storage, and
- ▶ inventory of toxic chemical releases.

Information gathered in these four categories helps federal, State, and local agencies and communities understand the chemical hazards in a particular location or area and what chemicals individual facilities are using, storing, or producing on-site.

The corresponding State law is Chapter 6.95 of the California Health and Safety Code (Hazardous Materials Release Response Plans and Inventory). Under this law, qualifying businesses are required to prepare a hazardous materials business plan, which identifies procedures for hazardous materials and hazardous waste management and emergency response, including emergency spill cleanup supplies and equipment. When the applicant begins to use hazardous materials at levels that reach applicable State or federal thresholds, the plan is submitted to the administering agency.

The California Department of Toxic Substances Control (DTSC), a division of the California Environmental Protection Agency, has primary regulatory responsibility over hazardous materials in California, working in conjunction with EPA to enforce and implement hazardous materials laws and regulations. As required by Section 65962.5 of the California Government Code, DTSC maintains a hazardous waste and substances site list for the state, known as the Cortese List. Individual regional water quality control boards (RWQCBs) are the lead agencies responsible for identifying, monitoring, and cleaning up leaking underground storage tanks (USTs). The Central Valley RWQCB (CVRWQCB) has jurisdiction over the Capitol Annex Project site.

Transport of Hazardous Materials and Hazardous Materials Emergency Response Plan

The State of California has adopted U.S. Department of Transportation regulations for the movement of hazardous materials originating within the state and passing through the state; State regulations are contained in 26 CCR. State agencies with primary responsibility for enforcing State regulations and responding to hazardous materials transportation emergencies are the California Highway Patrol and the California Department of Transportation. Together, these agencies determine container types used and license hazardous waste haulers to transport hazardous waste on public roads.

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous materials incidents is one part of the plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies in the project area.

Management of Construction Activities

Through the Porter-Cologne Water Quality Control Act and the National Pollutant Discharge Elimination System (NPDES) program, RWQCBs have the authority to require proper management of hazardous materials during project construction. For a detailed description of the Porter-Cologne Water Quality Control Act, the NPDES program, and the role of the CVRWQCB, see Section 4.10, "Hydrology and Water Quality."

The State Water Resources Control Board adopted the statewide NPDES General Permit in August 1999. The State requires that projects disturbing more than 1 acre of land during construction file a notice of intent with the RWQCB to be covered under this permit. Construction activities subject to the general permit include clearing, grading, stockpiling, and excavation. Dischargers are required to eliminate or reduce nonstormwater discharges to storm sewer systems and other waters. A storm water pollution prevention plan (SWPPP) must be developed and implemented for each site covered by the permit. The SWPPP must identify best management practices (BMPs) designed to prevent construction pollutants from contacting stormwater and keep products of erosion from moving off-site into receiving waters throughout the construction and life of the project; the BMPs must address source control and, if necessary, pollutant control.

Worker Safety

The California Occupational Safety and Health Administration (Cal/OSHA) assumes primary responsibility for developing and enforcing workplace safety regulations within the state. Cal/OSHA standards are typically more stringent than federal OSHA regulations and are presented in 8 CCR. Cal/OSHA conducts on-site evaluations and issues notices of violation to enforce necessary improvements to health and safety practices.

Title 8 of the CCR also includes regulations that provide for worker safety when blasting and explosives are used during construction activities. These regulations identify licensing, safety, storage, and transportation requirements related to the use of explosives during construction.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

County of Sacramento

The County of Sacramento enforces State regulations governing hazardous substance generators; hazardous substance storage; and the inspection, enforcement, and removals of USTs in both the city of Sacramento and Sacramento County. The county Hazardous Materials Division regulates the storage, use, and disposal of hazardous materials in Sacramento County by issuing permits, monitoring regulatory compliance, and investigating complaints. It oversees remediation of certain contaminated sites resulting from leaking USTs, reviews technical aspects of cleanup of hazardous substance sites, and provides assistance to public and private operations seeking to minimize the generation of hazardous substances.

City of Sacramento 2035 General Plan

The following goal and policies from the Sacramento 2035 General Plan Health and Safety Element of the City of Sacramento General Plan (City of Sacramento 2015) pertain to hazardous materials and are relevant to the Capitol Annex Project:

GOAL PHS 3.1: Reduce Exposure to Hazardous Materials and Waste. Protect and maintain the safety of residents, businesses, and visitors by reducing, and where possible, eliminating exposure to hazardous materials and waste.

- ▶ **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.
- ▶ **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.
- ▶ **PHS 3.1.4: Transportation Routes.** The City shall restrict transport of hazardous materials within Sacramento to designated routes.

City of Sacramento Department of Utilities

The City of Sacramento regulates the discharge of groundwater to the City's sewer and separated drainage systems. The City's Department of Utilities Engineering Services Resolution No. 92-439 requires approval of a memorandum of understanding (MOU) for long-term (more than 30 days), and an approval letter for short-term (fewer than 30 days), groundwater dewatering discharges to the City's sewer and/or separated drainage system. The MOU must cover proposed dewatering details, such as flow rate, system design, and contaminant monitoring plan. Discharges to the sewer must meet the levels approved by the Sacramento Regional County Sanitation District (SRCS) and the RWQCB. Dischargers to the sewer must obtain an SRCS discharge permit. Discharges to the separated drainage system require approval from the RWQCB.

City of Sacramento Hazardous Materials Program

The City's Hazardous Materials Program provides response support for hazardous material emergencies, including 24-hour first response to hazardous materials incidents. It is staffed by approximately 90 fire department personnel trained to the Hazardous Materials Specialist level and hosts two Type 1 Hazardous Materials Response Teams capable of responding to any hazardous materials incident and supporting decontamination operations. The Sacramento Metropolitan Fire District also hosts a Type 1 Hazardous Materials Response Team available to the City through a mutual aid agreement (City of Sacramento 2018).

City of Sacramento Emergency Operations Plan

The City of Sacramento Emergency Operations Plan (EOP), last published in July 2018, provides safeguards to minimize loss of life and property damage during natural disasters and emergencies of national defense. It establishes an Emergency Management Organization and assigns functions and tasks in accordance with California's Standardized Emergency Management System. The EOP provides guidance as to disaster response from the initial onset through the cost recovery process. It identifies policies, responsibilities, and procedures necessary to protect human health and safety, public and private property, and the environment from the effects of natural and anthropogenic disasters and emergencies. The EOP also outlines the specific emergency-related responsibilities of City agencies. For example, the City of Sacramento Police Department is responsible for implementing emergency evacuations, including traffic control plans, while the City of Sacramento Fire Department is the first responder for hazardous materials incidents (City of Sacramento 2018).

City of Sacramento Evacuation Plan

The City of Sacramento evacuation plan (2008) provides evacuation-specific strategy and information to support and guide the City's emergency managers, Emergency Operations Center staff, and other governmental and nongovernmental agencies that would be involved with an evacuation event in the city. Therefore, the evacuation plan serves as an amendment to the EOP. Flooding is considered the primary threat that would invoke an evacuation in Sacramento. Therefore, much of the evacuation plan is dedicated to procedures to be followed during a flood emergency. However, the associated strategy and plan details also apply to other hazards. The City

of Sacramento Fire Department maintains updated records of the emergency response and evacuation routes for the city (City of Sacramento 2008).

Sacramento Metropolitan Air Quality Management District

The proposed project would be subject to Sacramento Metropolitan Air Quality Management District Rule 902 for asbestos abatement; 8 CCR Sections 1529 and 1532.1 (construction safety orders pertaining to asbestos and lead, respectively); and CFR Part 61, Subpart M (pertaining to asbestos). These regulations govern the specific methods to be used for removal of asbestos and LBP and specify workplace safety measures that must be used to protect the health of construction workers during the removal process.

4.11.2 Environmental Setting

For purposes of this section, the term “hazardous materials” refers to both hazardous substances and hazardous wastes. A “hazardous material” is defined in the CFR as “a substance or material that...is capable of posing an unreasonable risk to health, safety, and property when transported in commerce” (49 CFR 171.8). As described in Section 25501 of the California Health and Safety Code, “hazardous material” means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material that a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

“Hazardous waste” is defined in California Health and Safety Code Section 25141(b) as a waste that because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness or pose a substantial present or potential hazard to human health or the environment...when improperly treated, stored, transported, or disposed of, or otherwise managed.

A Phase I ESA for the Capitol Annex Project at 1315 10th Street (the project site) in Sacramento, California, was conducted by Geocon (Geocon 2019). The purpose of the Phase I ESA was to identify evidence or indications of “recognized environmental conditions” (REC) as defined by the American Society for Testing and Materials’ (ASTM’s) *Designation E 1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* (ASTM 2013). Section 1.1.1 of ASTM Designation E 1527-13 defines a REC as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.”

The Phase I ESA included a query of federal, State, and local hazardous materials databases by Environmental Data Resources; a review of information available on GeoTracker and DTSC’s EnviroStor (<http://www.envirostor.dtsc.ca.gov/public/>) online database; a review of Sacramento County Environmental Management Department records pertaining to the project site and three properties adjacent to the project site; a review of City of Sacramento Building Department records; a review of the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources online mapping system for information regarding the location and status of any oil or natural gas exploration or production at or in the vicinity of the project site; an evaluation of the historical use of the site; a site reconnaissance visit to the project site; and an interview for information regarding past and present use of the project site and the potential for impacts related to the use, storage, or disposal of hazardous substances or petroleum on the project site.

The Phase I ESA identified the following release-related listings on the project site:

- ▶ The California Hazardous Materials Incident Reporting System (CHMIRS) database identified two incidents at 1315 10th Street. One incident occurred in 2001, when a truck crashed into the south side of the Capitol Building, spilling approximately 140 gallons of diesel from the vehicle and causing considerable damage and a subsequent fire. According to the Phase I ESA, cleanup of the diesel spill was likely thorough and is not considered a REC. The

second incident was in 2015, when a pallet jack fell off a loading dock, spilling hydraulic fluid and possibly battery acid. The quantities of chemicals spilled were not noted but were likely to have been minor and are not considered a REC.

- ▶ Another address for the State Capitol, 1300 Capitol Mall, is listed in the following databases: Leaking Underground Storage Tank (LUST), Sacramento County Toxic Site Clean-Up List (Sacramento Co. CS), Historical "Cortese" Hazardous Waste & Substance Site List (HIST Cortese), California Environmental Reporting Regulated Site Portal for Hazardous Waste (CERS HAZ Waste), and California Environmental Protection Agency Regulated Site Portal of sites that fall under the aboveground petroleum storage and UST regulatory programs (CERS TANKS). The LUST database documents a release of diesel oil to soil from a 10,000-gallon UST present on the north side of the Capitol Annex building (Capitol Annex, Annex) when the UST failed testing and was being repaired. The LUST case was closed by CVRWQCB in March 1989. Pertinent information was not provided under the Sacramento Co. CS, HIST Cortese, and CERS database listings. The UST is permitted with Sacramento County and used to fuel two backup generators, located in a mechanical room in the basement of the State Capitol and on the roof of the Annex.
- ▶ Room B23 of the State Capitol Building #001 is listed on the following databases: RCRA – Small Quantity Generator (RCRA-SQG), Facility Index System/Facility Registry System (FINDS), Enforcement & Compliance History Information (ECHO), and DTSC's Hazardous Waste Tracking System (HWTS). The RCRA-SQG database documents that operations at the site are permitted to generate between 100 and 1,000 kilograms of hazardous waste during any calendar month, and no violations are identified. The FINDS database, which is a hazardous waste tracking system, and the ECHO database, which is an enforcement and compliance history online database, did not provide pertinent information about the site; however, no violations were noted in the ECHO database's quarterly 3-year compliance history. The HWTS listings are for disposal of asbestos-containing material (ACM), oil waste, acids (liquids pH<2) between 1995 and 2017. This listing does not represent a significant environmental concern for the project site.
- ▶ The State Capitol Building #001 address is listed on the Sacramento County Master Hazardous Materials Facility List (Sacramento Co. ML) database, but the database does not contain pertinent information for the site. These listings do not indicate a violation or release and therefore do not indicate an environmental concern for the site.

More than 100 properties within one-eighth mile of the project site were listed on various non-release-related databases and therefore are unlikely to have caused a REC at the project site. Several additional properties less than one-eighth mile from the project site have closed regulatory cases that involved a release to soil only or are less than one-quarter mile from the site and had a release to groundwater but are cross- or downgradient from the project site and therefore were considered unlikely to have caused a REC at the project site. The additional release-related listings below are within one-quarter mile of the project site and have the potential to cause a REC at the site. According to the Phase I ESA, no other facilities within one-quarter mile of the project site that are listed on various release-related databases are likely to have caused a REC at the project site:

- ▶ The Consumer Affairs Building (Legislative Office Building), located at 1020 N Street, directly adjacent to and west of the south side of the project site, is listed on the LUST, HIST Cortese, Statewide Environmental Evaluation and Planning System (SWEEPS UST), Facility Inventory Database (CA FID UST), Sacramento County CS and ML, RCRA-SQG, and CERS databases. The listing is for a 10,000-gallon, 21-foot-long, and 9-foot-diameter heating oil UST located approximately 31 feet east of the 1020 N Street entrance, approximately 8 feet south of the curb, and approximately 90 feet west of the project site. A release of diesel at this facility, caused by the presence of a tree, affected soil. According to information available on GeoTracker and DTSC's EnviroStor (<http://www.envirostor.dtsc.ca.gov/public/>) online database as reported in the Phase 1 ESA (Appendix X), the UST was closed in place in July 1992. In July 1996, CVRWQCB closed the case.
- ▶ The Jesse M. Unruh Office Building at 915 Capitol Mall, which is approximately 100 feet west of the location proposed for the underground visitor/welcome center on the project site, was listed on the LUST, Sacramento County CS and ML, HIST Cortese, CERS, RCRA-SQG, FINDS, ECHO, and HWTS databases. According to information available on GeoTracker and DTSC's EnviroStor (<http://www.envirostor.dtsc.ca.gov/public/>) online database, one 1,500-gallon heating oil UST was removed from this site in 1987, a 5,000-gallon abandoned UST

was discovered in 1988, and a 4,000-gallon diesel or heating oil UST was removed in 2010. A release of waste oil from this facility affected groundwater. CVRWQCB closed the case in February 2013.

- ▶ The former Railyards are approximately 3,000 feet northwest of the project site, and various volatile organic compounds, semivolatile organic compounds, petroleum hydrocarbons, and metals released on the site have affected groundwater in the downtown region. The plume extends beneath the northwestern portion of the project site, and because 1,1-dichloroethane, 1,4-dioxane, and vinyl chloride are present in groundwater beneath the project site, represents a REC.

The Phase I ESA also states that the old security barriers, loading dock lifts, and security bollards surrounding the project site are likely to contain, or likely to have previously contained, hydraulic oil, which may have affected soil around these features and therefore represent potential RECs in connection with the project site.

4.11.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The following reports and data sources document potentially hazardous conditions at the project site and were reviewed for this analysis:

- ▶ relevant California Environmental Protection Agency and DTSC databases and documents;
- ▶ available literature, including documents published by federal, State, county, and city agencies;
- ▶ applicable elements from the City of Sacramento General Plan; and
- ▶ *Phase I Environmental Site Assessment Report: Capitol Annex Project, 1315 10th Street, Sacramento, California*, prepared by Geocon (2019) (Appendix G).

Activities proposed as part of the project were evaluated against the hazardous materials information gathered from these sources to determine whether any risks to public health and safety or other conflicts would occur.

THRESHOLDS OF SIGNIFICANCE

An impact related to hazards and hazardous materials would be significant if implementation of the Capitol Annex Project would:

- ▶ create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
- ▶ create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials into the environment;
- ▶ emit hazardous emissions or involve the handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;
- ▶ be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;
- ▶ for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area;
- ▶ impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan;
- ▶ due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;

- ▶ require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts on the environment; or
- ▶ expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, postfire slope instability, or drainage changes

ISSUES NOT DISCUSSED FURTHER

The school nearest to the project site is Capital Innovations Academy, a private school serving sixth through 12th graders approximately 0.5 mile northwest of the project site. There are no schools within one-quarter mile of the site. Several day-care/child-care centers are located within one-quarter mile of the project site. Many of these facilities are located within State-owned office buildings and facilities. California Government Code Sections 4560–4563 calls for, under certain circumstances, the provision of space for child-care facilities in State office buildings. Although some materials qualifying as hazardous may be used in an office building setting (e.g., cleaners, lubricants for mechanical equipment), these materials, used in this context, are not incompatible with nearby day-care/child-care facilities. The issue of the project emitting hazardous emissions or resulting in the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school is not evaluated further in this Draft EIR.

The project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport, or within the vicinity of a private airstrip, and implementing the project would not result in an aviation-related safety hazard for people residing or working in the project area. Therefore, this issue is not evaluated further in this Draft EIR.

The project site is in downtown Sacramento, an urban area that includes office buildings; apartments, high-rise condominiums, and other residences; parks; restaurants, and shops. The project site and vicinity are topographically flat and not adjacent to or intermixed with wildlands. Therefore, the project would not exacerbate wildfire risk and expose people to pollutants from wildfire or postfire slope instability or drainage changes, and these issues are not evaluated further in this Draft EIR.

For evaluation of potential dewatering activities during construction, see the discussion of Impact 4.10-1 in Section 4.10, "Hydrology and Water Quality."

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.11-1: Storage, Use, Disposal, Transport, or Upset of Hazardous Materials

Construction and operation of the Capitol Annex Project would involve the storage, use, and transport of hazardous materials at the project site. However, handling of hazardous materials would be in compliance with local, State, and federal regulations. Therefore, adverse impacts related to the creation of significant hazards to the public through routine transport, storage, use, disposal, and risk of upset would not occur. This impact would be **less than significant**.

Project construction and operation would involve the temporary storage, use, and transport of hazardous materials (e.g., fuels, lubricants, paint, solvents, cleaners). Transportation of hazardous materials on area roadways is regulated by the California Highway Patrol and California Department of Transportation, whereas use of these materials is regulated by DTSC, as outlined in 22 CCR. The State would be required to use, store, and transport hazardous materials in compliance with local, State, and federal regulations during facility construction. Any storage or use of hazardous materials during operation of the Annex, visitor/welcome center, or underground parking structure would be required to comply with appropriate regulatory agency standards designed to avoid releases of hazardous materials. Because construction and operation of the project would comply with existing hazardous materials regulations, impacts related to creation of significant hazards to the public through routine transport, use, disposal, and risk of upset would not occur. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.11-2: Exposure of Construction Workers and Others to Hazardous Materials

The Phase I ESA prepared for the project identified several records in various hazardous materials databases of past soil or groundwater contamination at or near the project site. Based on the prior history of the project site and surrounding area, proposed demolition, excavation, and facility construction activities on the project site could result in the exposure of construction workers and the general public to hazardous materials. This impact would be **less than significant**.

Development of the project site would involve demolition of the existing Annex, site grading, excavation for a new underground parking garage and visitor/welcome center, excavation for utilities, dewatering of open trenches, backfilling, and construction of the new building and associated facilities. Based on the results of the Phase I ESA, the potential exists for hazardous materials to be encountered during these activities.

Because of its age, the Annex may contain hazardous materials, such as ACM, LBP, and polychlorinated biphenyls (PCBs). The building also likely contains various other potentially hazardous materials (e.g., hydraulic fluid, fire extinguishers, miscellaneous chemical cleaning/maintenance products, fuel oil, process system refrigerant, and refrigerated equipment for food storage), and universal wastes (e.g., fluorescent light tubes and bulbs, mercury-containing thermostats and switches).

According to the Phase I ESA prepared for the project site, there are several records in various hazardous materials databases of past soil or groundwater contamination at or near the project site. Past records identified the following potential RECs and other environmental concerns in connection with the project site:

- ▶ The 10,000-gallon diesel UST located adjacent to the north side of the Capitol Annex may be removed during construction.
- ▶ The old security barriers, loading dock lifts, and security bollards on the project site likely contain, or previously contained, hydraulic oil, which may have affected soil around these features.
- ▶ Although none of the USTs identified in the Phase I ESA around 11th Street are in the proposed work area, it is possible construction may encounter undocumented USTs or soil or groundwater contamination.
- ▶ The former Railyards are approximately 3,000 feet northwest of the project site, and various volatile organic compounds, semivolatle organic compounds, petroleum hydrocarbons, and metals, including 1,1-dichloroethane, 1,4-dioxane, and vinyl chloride, may have affected groundwater in the downtown region. The plume extends beneath the northwestern portion of the project site.

Because of the age of the existing buildings and structures on the project site, there is a possibility that LBP and ACM may be present in building materials. In addition, electrical switches, light ballasts, and transformers containing PCBs may also be present. If allowed to deteriorate, these materials could result in localized lead and asbestos contamination. Further, construction activities could encroach upon structures containing these materials, which could cause a release to the environment. These materials could also become airborne during demolition and construction activities and create a hazard for construction workers at the project site. Exposure to asbestos and/or lead, as well as PCBs, could lead to adverse health effects.

With the proposed demolition of the existing Annex and excavation and dewatering, trenching, and backfilling of the site for utilities and construction of the underground garage, visitor/welcome center, and new Annex, there is potential for construction workers and the general public to be exposed to hazardous materials in existing or previously unknown USTs and previously undiscovered hazardous materials contamination. These hazardous materials could include petroleum hydrocarbons, freon, contaminated debris, elevated levels of chemicals that could be hazardous, or hazardous substances that could be inadvertently spilled or otherwise spread. Release and/or exposure to hazardous materials could result in a safety hazard for people residing or working in the project area.

Contractors and the State would be required to comply with federal, State, and local regulations related to the remediation and disposal of any contaminated or hazardous materials encountered during demolition and construction, as well as regulations pertaining to worker safety. Compliance would involve coordination with various agencies regarding appropriate methods to address any contamination found at the project site, and disposal of hazardous materials in a manner consistent with applicable regulations at an appropriate off-site disposal facility. In addition, the Sacramento County Environmental Management Department must be notified if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater) is encountered during excavation and dewatering activities. Also, as described in the discussion of Impact 4.10-1 of this Draft EIR, the SWPPP would include a dewatering plan, which would establish measures to treat any groundwater pumped from the construction site before release.

Because remediation and disposal of any identified hazardous materials would be implemented in accordance with federal, State, and local laws and regulations intended to protect workers and the public from exposure to hazardous materials, and compliance with these laws and regulations would be achieved, in part, through direct coordination with applicable regulatory agencies, this compliance with existing regulations would prevent the implementation of the project from resulting in a significant risk to construction workers or the public from exposure to hazardous materials. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.11-3: Impaired Implementation of or Physical Interference with an Adopted Emergency Response Plan or Emergency Evacuation Plan

Construction of the project could require temporary lane or street closures, which could affect emergency access and evacuation routes. DGS would prepare a construction traffic control plan, consistent with Section 12.20.20 of the Sacramento City Code, which would minimize construction impacts related to potential interference with emergency response or evacuation. In addition, the project site is located within a downtown street grid; therefore, various alternative routes are available to access the project site and nearby locations. Following construction, the new Annex would comply with the current Building Code and the Americans with Disabilities Act, security checkpoints would be modernized, parking would no longer be under the footprint of the Annex, and emergency response and evacuation of the State Capitol building and Annex would be improved. This impact would be **less than significant**.

During project construction, it would be necessary to restrict and redirect pedestrian, bicycle, and vehicular movements around the site to accommodate material hauling to and from the site and construction activities at the site, including demolition, construction, staging, and modifications to existing infrastructure. Restricting access to the site and accommodating material hauling could include lane closures, lane narrowing, and detours, which would be temporary. Potential lane restrictions or closures and/or sidewalk closures could occur along N Street between 10th and 12th Streets, along 10th Street between L and N Streets, and along L Street between 11th and 12th Streets, restricting vehicular, pedestrian, and bicycle access in these areas. However, the project site is located within a downtown street grid; therefore, various alternative routes are available to access the project site and nearby locations if there are access disruptions on these roads.

DGS would prepare a construction traffic control plan, consistent with Section 12.20.20, "Closure of Streets for Work—Traffic Control Plan," of the Sacramento City Code, that illustrates the location of the proposed work area, identifies the location of areas where the public right-of-way would be closed or obstructed and the placement of traffic control devices necessary to perform the work, shows the proposed phases of traffic control, and identifies the periods when the traffic control would be in effect and when work would prohibit access to private property from a public right-of-way. The plan may be modified by the City at any time to eliminate or avoid traffic conditions that are hazardous to the safety of the public. However, Section 12.20.20 does not require a traffic control plan to provide information on access for emergency vehicles. Therefore, the traffic control plan prepared for the Capitol Annex Project would also provide information on access for emergency vehicles to prevent interference with emergency response.

Upon completion of the project, the existing Annex would be replaced with a new Annex with Americans with Disabilities Act compliant access and improved circulation. Underground parking would no longer be within the footprint of the Annex and posing a risk to building occupants in the event of a security breach, and the visitor/welcome center entrance, new underground parking and access, and sergeants-at-arms monitoring station would be equipped with modern security features. Because the new Annex would comply with the current Building Code and the Americans with Disabilities Act, security checkpoints would be modernized, parking would no longer be under the footprint of the Annex, and emergency response and evacuation of the State Capitol building and Annex would be improved, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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4.12 ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

This section analyzes and evaluates the potential impacts of the project on known and unknown cultural resources. Cultural resources include districts, sites, buildings, structures, or objects generally older than 50 years and considered to be important to a culture, subculture, or community for scientific, traditional, religious, or other reasons. They include prehistoric resources, historic-era resources, cultural landscapes, and “tribal cultural resources” (the latter as defined by AB 52, Statutes of 2014, in PRC Section 21074).

Archaeological resources are locations where human activity has measurably altered the earth or left deposits of prehistoric or historic-era physical remains (e.g., stone tools, bottles, former roads, house foundations). Historic-era built environment (architectural) resources include standing buildings (e.g., houses, barns, outbuildings, cabins) and intact structures (e.g., dams, bridges, roads, districts). A cultural landscape is defined as a geographic area (including both cultural and natural resources and the wildlife therein) associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values. Tribal cultural resources were added as a resource subject to review under CEQA, effective January 1, 2015, under AB 52 and include sites, features, places, cultural landscapes, sacred places or objects that are of cultural value to a tribe.

4.12.1 Regulatory Setting

FEDERAL

Section 106 of the National Historic Preservation Act

Federal protection of resources is legislated by (a) the National Historic Preservation Act (NHPA) of 1966 as amended by 16 U.S. Code 470, (b) the Archaeological Resource Protection Act of 1979, and (c) the Advisory Council on Historic Preservation. These laws and organizations maintain processes for determining the effects on historical properties eligible for listing in the National Register of Historic Places (NRHP).

Section 106 of the NHPA and accompanying regulations (36 CFR Part 800) constitute the main federal regulatory framework guiding cultural resources investigations and require consideration of effects on properties that are listed in, or may be eligible for listing in, the NRHP. The NRHP is the nation’s master inventory of known historic properties. It is administered by the National Park Service and includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, and cultural importance that is considered significant at the national, State, or local level.

The formal criteria (36 CFR 60.4) for determining NRHP eligibility are as follows:

1. The property is at least 50 years old (however, properties under 50 years of age that are of exceptional importance or are contributors to a district can also be included in the NRHP).
2. It retains integrity of location, design, setting, materials, workmanship, feeling, and association.
3. It possesses at least one of the following characteristics:
 - a. It is associated with events that have made a significant contribution to the broad patterns of history (events).
 - b. It is associated with the lives of persons significant in the past (persons).
 - c. It possesses distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant, distinguishable entity whose components may lack individual distinction (architecture).
 - d. It has yielded, or may be likely to yield, information important to prehistory or history (information potential).

Listing in or eligibility for 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 or eligible for listing in the NRHP must be evaluated under CEQA.

Two issues of the *National Register Bulletin* also provide guidance in the evaluation of archaeological site significance. If a heritage resource cannot be placed within a particular theme or time period, and thereby lacks “focus,” it is considered not eligible for listing in the NRHP. In further expanding upon the generalized NRHP criteria, evaluation standards for linear features (such as roads, trails, fence lines, railroads, ditches, and flumes) are considered in terms of four related criteria that account for specific elements that define engineering and construction methods of linear features: (1) size and length, (2) presence of distinctive engineering features and associated properties, (3) structural integrity, and (4) setting. The highest probability for NRHP eligibility exists within the intact, longer segments where multiple criteria coincide.

Cultural and Historic Landscapes

Under the NRHP, historic properties may be defined as sites, buildings, structures (such as bridges or dams), objects, or districts, including cultural or historic landscapes. A cultural landscape differs from a historic building or district in that it is understood through the spatial organization of the property, which is created by the landscape’s cultural and natural features. Some features may create viewsheds or barriers (such as a fence), and others create spaces or “rooms” (such as an arrangement of buildings and structures around a lawn area). Some features, such as grading and topography, underscore the landscape’s development in relationship to the natural setting. To be listed in the NRHP, a cultural landscape must meet one of the four evaluation criteria and must retain its integrity.

Historic landscapes include residential gardens and community parks, scenic highways, rural communities, institutional grounds, cemeteries, battlefields and zoological gardens. They are composed of a number of character-defining features that, individually or collectively, contribute to the landscape’s physical appearance as they have evolved over time. In addition to vegetation and topography, cultural landscapes may include water features, such as ponds, streams, and fountains; circulation features, such as roads, paths, steps, and walls; buildings; and furnishings, including fences, benches, lights, and sculptural objects.

A cultural landscape is defined as “a geographic area, including both cultural and natural resources and the wildlife or domestic animals therein, associated with a historic event, activity, or person or exhibiting other cultural or aesthetic values.” There are four general types of cultural landscapes, not mutually exclusive: historic sites, historic designed landscapes, historic vernacular landscapes, and ethnographic landscapes:

- ▶ A historic site is a landscape significant for its association with a historic event, activity, or person. Examples include battlefields and presidential residence properties.
- ▶ A historic designed landscape is a landscape that was consciously designed or laid out by a landscape architect, master gardener, architect, or horticulturist according to design principles or by an amateur gardener working in a recognized style or tradition. The landscape may be associated with a significant person(s), trend, or event in landscape architecture or may illustrate an important development in the theory and practice of landscape architecture. Aesthetic values play a significant role in designed landscapes. Examples include parks, campuses, and estates.
- ▶ A historic vernacular landscape is a landscape that evolved through use by the people whose activities or occupancy shaped that landscape. Through social or cultural attitudes of an individual, family, or a community, the landscape reflects the physical, biological, and cultural character of those everyday lives. Function plays a significant role in vernacular landscapes. They can be a single property, such as a farm or a collection of properties, such as a district of historic farms along a river valley. Examples include rural villages, industrial complexes, and agricultural landscapes; Sacramento’s Raised Streets and Hollow Sidewalks District is a good local example of a historic vernacular landscape.
- ▶ An ethnographic landscape is a landscape containing a variety of natural and cultural resources that associated people define as heritage resources. Examples are contemporary settlements, religious sacred sites, and massive geological structures. Small plant communities, animals, subsistence and ceremonial grounds are often components.

STATE

California Environmental Quality Act

CEQA requires public agencies to consider the effects of their actions on “historical resources,” “unique archaeological resources,” and “tribal cultural resources.” Pursuant to PRC Section 21084.1, a “project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.” Section 21083.2 requires agencies to determine whether projects would have effects on unique archaeological resources.

Historical Resources

“Historical resource” is a term with a defined statutory meaning (PRC Section 21084.1; determining significant impacts on historical and archaeological resources is described in the State CEQA Guidelines, Sections 15064.5[a] and [b]). Under State CEQA Guidelines Section 15064.5(a), the following resources are considered historical:

- 1) A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (CRHR) (PRC Section 5024.1) will be presumed to be historically significant.
- 2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, will be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- 3) Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource will be considered by the lead agency to be historically significant if the resource meets the following criteria for listing in the CRHR (PRC Section 5024.1):
 - a) is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - b) is associated with the lives of persons important in our past;
 - c) 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
 - d) has yielded, or may be likely to yield, information important in prehistory or history.
- 4) The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), or not identified in a historical resources survey (meeting the criteria in Section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Section 5020.1(j) or 5024.1.

Unique Archaeological Resources

CEQA also requires lead agencies to consider whether projects will affect unique archaeological resources. PRC Section 21083.2, subdivision (g), states that a unique archaeological resource is 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:

1. It contains information needed to answer important scientific research questions, and there is a demonstrable public interest in that information.
2. It has a special and particular quality, such as being the oldest of its type or the best available example of its type.
3. It is directly associated with a scientifically recognized important prehistoric or historic event or person.

Tribal Cultural Resources

CEQA also requires lead agencies to consider whether projects will affect tribal cultural resources. PRC Section 21074 states:

- a) "Tribal cultural resources" are either of the following:
 - 1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
 - B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.
 - 2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.
- b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.
- c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).

California Register of Historical Resources

All properties in California that are listed in or formally determined eligible for listing in the NRHP are eligible for listing in the CRHR. The CRHR is a listing of state of California resources that are significant within the context of California's history. The CRHR is a statewide program with a scope and criteria for inclusion similar to those used for the NRHP. In addition, properties designated under municipal or county ordinances are also eligible for listing in the CRHR.

A historical resource must be significant at the local, State, or national level under one or more of the criteria defined in the CCR Title 15, Chapter 11.5, Section 4850 to be included in the CRHR. The CRHR criteria are similar to the NRHP criteria and are tied to CEQA because any resource that meets the criteria below is considered a significant historical resource under CEQA. All resources listed in or formally determined eligible for listing in the NRHP are automatically listed in the CRHR.

The CRHR uses four evaluation criteria:

1. It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.
2. It is associated with the lives of persons important to local, California, or national history.
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.
4. It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Similar to the NRHP, a resource must meet one of the above criteria and retain integrity. The CRHR uses the same seven aspects of integrity as the NRHP.

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 must cease and the County coroner must be notified. If the remains are of a Native American, the coroner must notify the Native American Heritage Commission (NAHC), which notifies and has the authority to designate the Most Likely Descendant (MLD) of

the deceased. The act stipulates the procedures the descendants may follow for treating or disposing of the remains and associated grave goods.

California State Historical Building Code

The purpose of the California State Historical Building Code (CHBC) (as defined in Sections 18950–18961 of Division 13, Part 2.7 of the Health and Safety Code) is to provide regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or properties designated as qualified historical buildings or properties. The CHBC is intended to provide solutions for the preservation of qualified historical buildings or properties, to promote sustainability, to provide access for persons with disabilities, to provide a cost-effective approach to preservation, and to provide for the reasonable safety of the occupants or users. The CHBC requires enforcing agencies to accept solutions that are reasonably equivalent to the regular building code when dealing with qualified historical buildings or properties.

The CHBC is applicable to all issues regarding code compliance for qualified historical buildings or properties. The CHBC may be used in conjunction with the regular code to provide solutions to facilitate the preservation of qualified historical buildings or properties. State agencies shall apply the provisions of the CHBC in permitting repairs, alterations, and additions necessary for the preservation, restoration, rehabilitation, safety, relocation, reconstruction, or continued use of qualified historical buildings or properties.

When a qualified historical building or property is determined to be unsafe as defined in the regular code, the requirements of the CHBC are applicable to the work necessary to correct the unsafe conditions. Work to remediate the buildings or properties need only address the correction of the unsafe conditions, and it shall not be required to bring the entire qualified historical building or property into compliance with regular code. Qualified historical buildings or properties shall not be subject to additional work required by the regular code, regulation, or ordinance beyond that required to complete the work undertaken. Certain exceptions for accessibility and for distinct hazards exist by mandate and may require specific action, within the parameters of the CHBC.

Health and Safety Code, Sections 7052 and 7050.5

Section 7052 of the Health and Safety Code states that the disturbance of Native American cemeteries is a felony. Section 7050.5 requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are those of a Native American. If they are determined to be those of a Native American, the coroner must contact the NAHC.

Public Resources Code, Section 5097

PRC Section 5097 specifies the procedures to be followed if human remains are unexpectedly discovered on nonfederal land. The disposition of Native American burial falls within the jurisdiction of the NAHC. Section 5097.5 of the PRC states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

Assembly Bill 52

AB 52, signed by the California governor in September of 2014, establishes a new class of resources under CEQA: “tribal cultural resources.” It requires that lead agencies undertaking CEQA review must, upon written request of a California Native American tribe, begin consultation after the lead agency determines that the application for the project is complete, before a notice of preparation of an EIR or notice of intent to adopt a negative declaration or mitigated negative declaration is issued. AB 52 also requires revision to CEQA Appendix G, the environmental checklist. This revision has created a new category for tribal cultural resources.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The following goal and policies from the City of Sacramento 2035 General Plan Historic and Cultural Resources Element are relevant to the analysis of effects on cultural resources:

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 2.1.1: Identification.** The City shall identify historic and cultural resources including individual properties, districts, and sites (e.g., archaeological sites) to ensure adequate protection of these resources.
- ▶ **Policy HCR 2.1.2: Applicable Laws and Regulations.** The City shall ensure compliance with City, State, and Federal historic preservation laws, regulations, and codes to protect and assist in the preservation of historic and archaeological resources, including the use of the California Historical Building Code as applicable. Unless listed in the Sacramento, California, or National registers, the City shall require discretionary projects involving resources 50 years and older to evaluate their eligibility for inclusion on the California or Sacramento registers for compliance with the California Environmental Quality Act.
- ▶ **Policy HCR 2.1.3: Consultation.** The City shall consult with appropriate organizations and individuals (e.g., California Historical Resources Information System (CHRIS) Information Centers, the Native American Heritage Commission (NAHC), the CA Office of Planning and Research (OPR) "Tribal Consultation Guidelines," etc.) and shall establish a public outreach policy to minimize potential impacts to historic and cultural resources.
- ▶ **Policy HCR 2.1.5: National, California, and Sacramento Registers.** The City shall support efforts to pursue eligibility and listing for qualified resources including historic districts and individual resources under the appropriate National, California, or Sacramento registers.
- ▶ **Policy HCR 2.1.7: Historic Resource Property Maintenance.** The City shall encourage maintenance and upkeep of historic resources to avoid the need for major rehabilitation and to reduce the risks of demolition, loss through fire or neglect, or impacts from natural disasters.
- ▶ **Policy HCR 2.1.11: Compatibility with Historic Context.** The City shall review proposed new development, alterations, and rehabilitation/remodels for compatibility with the surrounding historic context. The City shall pay special attention to the scale, massing, and relationship of proposed new development to surrounding historic resources.
- ▶ **Policy HCR 2.1.12: Contextual Features.** The City shall promote the preservation, rehabilitation, restoration, and/or reconstruction, as appropriate, of contextual features (e.g., structures, landscapes, street lamps, signs) related to historic resources.
- ▶ **Policy HCR 2.1.15: Demolition.** The City shall consider demolition of historic resources as a last resort, to be permitted only if the rehabilitation of the resource is not feasible, demolition is necessary to protect the health, safety, and welfare of its residents, or the public benefits outweigh the loss of the historic resource.
- ▶ **Policy HCR 2.1.16: Archeological & Cultural Resources.** The City shall develop or ensure compliance with protocols that protect or mitigate impacts to archaeological and cultural resources including prehistoric resources.

- ▶ **Policy HCR 2.1.17: Preservation Project Review.** The City shall review and evaluate proposed development projects to minimize impacts on identified historic and cultural resources, including projects on Landmark parcels and parcels within Historic Districts, based on applicable adopted criteria and standards.

The following goal and policy from the City of Sacramento 2035 Land Use Element are relevant to the analysis of effects on cultural resources:

GOAL LU 1.1: Growth and Change. Support sustainable growth and change through orderly and well-planned development that provides for the needs of existing and future residents and businesses, ensures the effective and equitable provision of public services, and makes efficient use of land and infrastructure.

- ▶ **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 where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

4.12.2 Environmental Setting

The Capitol Annex Project site is located in downtown Sacramento in the lower (southern) Sacramento Valley, part of California's Central Valley. The city of Sacramento was developed near the confluence of the American and Sacramento Rivers, and the low-lying region was prone to winter flooding. Historic maps and other materials identify the project site as being close to a paleo-sandbar, thus indicating slightly higher ground than the marshy area along the rivers to the west and north. High ground near rivers, marshes, and other freshwater settings was ideal for habitation and resource extraction by Native Americans. In 1860, the project area was also deemed an ideal setting for construction of a new State Capitol building and surrounding gardens.

The project site is located in downtown Sacramento on the Capitol grounds, bounded by 10th Street on the west, N Street on the south, L Street on the north, and 12th Street on the east (roughly following the alignment of 12th Street across Capitol Park), on the site of the State Capitol building (Figure 3-2). The site encompasses portions of the western half of Capitol Park. However, most of Capitol Park is located east of the project site between 12th Street and 15th Street.

As described further in Chapter 3, "Project Description," the Capitol Annex Project consists of three primary components: construction of a new underground visitor/welcome center on the west side of the Historic Capitol between the State Capitol building and 10th Street, replacement of the Capitol Annex building (Capitol Annex, Annex) on the east side of the Historic Capitol, and construction of new underground parking on the south side of the Historic Capitol between the Capitol building and N Street (Figure 3-3).

REGIONAL PREHISTORY

Early occupation in the Central Valley occurred at least 9,500 years ago, during the time of deglaciation and warming in the Early Holocene. Few recorded archaeological sites, however, predate 5,000 years ago, during the Paleo-Indian and Lower Archaic periods, primarily because early landscapes were buried by alluvial floodplain and fan deposits (Rosenthal et al. 2007). Only a few projectile points have been identified in this region that likely date to the Paleo-Indian Period. Although little evidence of prehistoric occupation exists during the succeeding Lower Archaic, recently discovered buried deposits of site CA-SAC-38 date from 8,500 to 3,000 years ago. The artifacts and burials from the site, which was located on former high ground in downtown Sacramento, were recovered to a depth of 10–22 feet.

Archaeological sites dating from 7,500 to 2,500 years ago during the subsequent Middle Archaic period indicate populations followed a seasonal foraging strategy. They consumed a variety of animals, plants, and fish and likely occupied higher elevations in summer and shifted to lower elevations during winters. They also had an established trade network.

During the Upper Archaic, from 2,500 to 1,000 years ago, coincident with the onset of Late Holocene environmental conditions, more specialized technology resulted in innovations with new types of shell beads, bone tools, ceremonial blades, and charmstones. A proportional change in types of milling tools suggests there was a shift to a greater

reliance on acorns as a dietary staple, with pine nuts a seasonally important food in the uplands. The remains of a variety of aquatic resources in the valley and mountains, as well as large Central Valley shell middens, suggest fish and shellfish were also important food resources. Large, mounded villages developed in the Sacramento Valley that included accumulations of habitation debris and features, such as house floors, hearths, rock-lined ovens, and burials.

Approximately 1,000 years ago, during the Emergent Period, the diversity and number of artifacts and the number of archaeological sites increased in this region. An increase in sedentism and population led to the development of social stratification, with an elaborate ceremonial and social organization. The Emergent Period was also shaped by a number of cultural innovations, such as the bow and arrow and more elaborate and diverse fishing technology. The use of clamshell disk beads as a form of currency accompanied the development of extensive exchange networks during this period. As viewed from the archaeological record, the cultural patterns typical of the Emergent Period also begin to reflect the cultural traditions known from historic period Native American groups, including the Nisenan.

ETHNOGRAPHY

The project site lies within the lands historically occupied by the Nisenan (also known as the southern Maidu) (Kroeber 1925; Wilson and Towne 1978). Their territory included the southern extent of the Sacramento Valley, east of the Sacramento River between the North Fork Yuba River and Cosumnes River on the north and south, respectively, and extended east to the crest of the Sierra Nevada. Because this region provided these seasonally mobile hunter-gatherers with an abundance of natural resources, the Nisenan established central villages and smaller satellite villages along main watercourses in their territory. Two major Nisenan villages, *Sama* and *Momol*, were located in the city of Sacramento near the confluence of the Sacramento and American Rivers. An 1850 lithograph notes that a small village, *Sa'cum*, was situated atop a high knoll at today's Caesar Chavez Park.

Similar to other California Native American groups, the Nisenan employed a variety of tools, implements, and enclosures for hunting and collecting natural resources. Acorns, of particular importance to the diet, were collected in fall and then stored in village granaries before processing with bedrock or portable mortars and pestles. They also participated in an extensive east-west trade network between the coast and the Great Basin.

Beginning in the early 1800s, the traditional culture and lifeways of the Nisenan were disrupted. Foreign disease epidemics in 1830–1833 that swept through the densely populated Central Valley decimated native populations, wiping out entire villages. The discovery of gold in 1848 in the heart of Nisenan territory had a devastating impact on the remaining Nisenan. By 1850, with their lands, resources and way of life being overrun by the steady influx of nonnative people during the Gold Rush, surviving Nisenan retreated to the foothills and mountains or labored for the growing ranching, farming, and mining industries.

HISTORIC SETTING

Regional History

Early Exploration and Settlement

California was visited by every major European naval power but was claimed by the Spanish Empire in approximately 1602. The first California mission was established in 1769, in San Diego. Over the next 50 years, the Spanish government with the aid of various Roman Catholic orders established 21 missions throughout "Alta California." Lieutenant Gabriel Moraga and 13 soldiers traveled to the Sacramento Valley from Mission San José in 1808 but reported that the area would not be suitable for a mission site. Moraga is credited with naming the lower Sacramento River and the valley region "Sacramento" ("the Holy Sacrament").

Mexico's independence from Spain in 1822 resulted in the secularization of the missions, and the period is marked by an extensive era of land grants and by exploration by American and Canadian fur trappers west of the Sierra Nevada. Most of the land grants to Mexican citizens in Alta California were in the interior, away from the more settled coastal areas where the Spanish settlements had been concentrated. In 1839, John Sutter, born a citizen of Switzerland, obtained permission from Mexican Governor Juan Bautista Alvarado to establish an inland settlement. His party

disembarked at the site of present-day Sutter's Landing Park on 28th Street August 12, 1839. After Sutter became a Mexican citizen in 1840, he was awarded the 48,839-acre grant that included the project site and stretched north to the Sutter Buttes. Between 1841 and 1844, Sutter constructed an adobe fort (now Sutter's Fort State Park on L and 27th Streets) on the land. Sutter named his trading and agricultural empire New Helvetia (New Switzerland). At the initiation of the Mexican-American War in 1846, he disavowed his loyalty to the Mexicans and raised the Stars and Stripes over New Helvetia.

California was ceded as a territory to the United States following the end of the Mexican-American War in 1848. During that time, the steadily growing population of New Helvetia expanded into the surrounding countryside. The lumber mill built by one of Sutter's employees, James Marshall, was originally planned to support Sutter's conceptual city, Sutterville. Sutter's Mill on the American River in Coloma yielded gold instead. News of the discovery reached San Francisco and the rest of the world.

By 1849, nearly 90,000 people had journeyed to the gold fields, and in 1850, California became the 31st state. Sutter's agricultural empire struggled as his workers and associates were lured away by prospecting. Creditors, assuming Sutter had claim to the gold at Coloma (he did not), forced the Swiss émigré to transfer his holdings to his son, John. John, seeking to pay off his father's debts, designated 4 square miles of the original Mexican land grant as the site for the new town, Sacramento, and commissioned a survey. A grid pattern for the town, with east-west streets designated by numbers and north-south streets by letters of the alphabet, was developed in 1848 on the land east of the embarcadero along Front Street. Each street measured 80 feet wide, with the exception of Front and M Streets, which measured 100 feet wide. M Street was later renamed Capitol Mall and Capitol Avenue, east and west of the State Capitol building, respectively.

Lots within the new town were initially sold for \$250 near the fort and \$500 near the embarcadero. The same lots soon sold for 10 times their original price, and stores, saloons, and gambling houses sprang up to empty the newly filled pockets of the miners arriving at the embarcadero on Front Street. As the commercial center of Sacramento began to favor the riverfront, more and more canvas and semipermanent structures opportunistically arose. When California was admitted to the Union in 1850, the populace of Sacramento, nearly 12,000 people, had already experienced a disastrous flood. Subsequent floods and fires would shape civic policy and urban planning for the next several decades.

Establishing a Capital City, State Capitol Building, and Capitol Park

The bustling Gold Rush boomtown of Sacramento served as a river transportation hub, providing critical access to the mining districts in the foothills. In 1850, only 1 year after it was founded, Sacramento was incorporated as a city, and in 1854, Sacramento became the state capital. Although businesses and industries supporting the Gold Rush and the growing population of Sacramento boomed, the city itself suffered multiple catastrophes. A series of events—fires in 1852 and 1854 and floods in 1853, 1854, 1861–1862, and 1878—motivated wealthy members of the city to construct levees and bulwarks and raise streets to protect people, homes, and businesses. Between 1864 and 1878, the streets and buildings between the east bank of the Sacramento River along Front Street to 12th Street and between I and L Streets were raised 4–15 feet. Convict labor, press gangs, and private contractors were used to systematically raise this approximately 140-acre main business area, which was located north and northwest of today's Capitol building and Capitol Park. Retaining walls strengthened by brick bulwarks or buttresses were constructed with locally fired bricks, sand and gravel hauled in by the wagonload from the American River or from local farms were used as street fill, buildings were jacked up, and the first stories of many downtown buildings became subterranean. Because of the severe flooding issues, the city also straightened and dug a new mouth for the American River between 1864 and 1868.

In 1856, the California Legislature voted to build a new State Capitol building for \$300,000. In 1860, four blocks bounded by 10th, 12th, L, and N Streets were donated by the city as a site for the new building. The site was located on the southeast edge of the city, where a few scattered buildings stood on large parcels in a semirural area. The city condemned the property, removed people from their homes, and sold the homes, outbuildings, fences, fruit trees, and shrubbery at auction. The last building on the site, the Sacramento County Hospital, located at 10th and L Streets, was not removed until 1869 (Woodward 1981).

Groundbreaking for the new State Capitol building occurred in December 1860. Workers dug excavation trenches, lined them with a bed of cobblestones and broken granite, and covered them with a 3-foot-thick layer of concrete. A circular trench made of brick—2 feet wide, 2 feet deep and 28 feet in diameter—was used to make bricks for the basement wall. The trench was located east of the building site near an artesian well and large shed built for the operation, and the lime, sand, and water were mixed using a horse walker system. The cornerstone was laid in May 1861, but because of the 1861–1862 winter flood caused by levee breaks along the American River, work was brought to a halt. The walls were surrounded by 1 foot of mud and water, and building materials were destroyed or swept away. When work resumed in August 1862, wheelbarrows of dirt were dumped to raise the building's foundation height by 6 feet to protect against future flooding problems. After it was raised, the ground line at the Capitol building was 13 feet above adjacent streets (California State Capitol Museum 2015; City of Sacramento 2015; Appendix B; Woodward 1981).

By 1869, enough of the structure had been built to allow legislative sessions to convene within its walls. Construction of the new State Capitol building was completed in 1874, with the cost of construction totaling \$500,000. In the 1870s, more land was donated to create what would become Capitol Park. The land was terraced around the raised Capitol, with cascading stone steps and balustrades, as well as plantings of flowers, trees and other plants (Dreyfuss + Blackford Architecture and Page & Turnbull 2006). The monumental design of the State Capitol combined with its setting within Capitol Park lent gravitas to the state of California, which at the time was fairly isolated from the rest of the country. The State Capitol was designed with neoclassical architectural features common to the U.S. Capitol building in Washington, D.C., and other state capitals. The first story of the building was clad in granite that was delivered to Sacramento via the Sacramento Valley Railroad from a quarry in Folsom. Granite for the upper stories was quarried in Penryn and transported via the new Central Pacific Railroad.

The new Capitol building had gas lighting and indoor water closets. A heating system was installed in the unfinished basement in 1872 and the basement walls pierced to let in fresh air. It was noted during later repairs, however, that “most of this plumbing went from nowhere to nowhere else, and didn't connect with much of anything in between, but it did a splendid job of providing employment and filling yawning spaces underneath various floors” (Visnich 2000). In 1890, sanitation improvements included cleaning the building's cesspool and the pipes leading to it. Water mains ran from M Street west into the Capitol grounds. By 1895, the Capitol building had electric light.

By 1872, the original four-block area housing the State Capitol building and surrounding gardens had been increased to the 10 blocks bordered by 10th, 15th, L, and N Streets. Beautification of the park, “considered one of the most beautiful State Capitol grounds in the nation,” began in 1869 (California State Capitol Museum 2016). The area was graded, and silt and soil from the bed of the Sacramento River were used to enrich the land for planting, ultimately raising it “to a height of approximately ten feet” near completion of the Capitol building in 1874 (Woodward 1981:37). The newer sections of the gardens were designed to have a more natural, parklike feel. Among the varieties of native and exotic trees and flowering shrubs in the park is the row of California fan palms, planted in 1882, that still flank the park's perimeter.

The neighborhood surrounding the State Capitol and Capitol Park has undergone several phases of development since its opening. At the end of the 19th century, the Capitol Park neighborhood surrounding the project site boasted opulent Italianate and vernacular multistory family homes (Sanborn 1895). Twentieth-century development of the project area began in the early 1900s. Sanborn Fire Insurance maps from 1915 show many of the homes in this upper-class neighborhood had been converted to or included new construction of multifamily residences, while remaining single-family residences contained garages for Sacramento's first autos (Sanborn 1952). The residential neighborhood shifted to office buildings for the government bureaucracy during the interbellum period that followed.

The original four-block area immediately around the Capitol was laid out in a formal geometric pattern (Figure 4.12-1). As Capitol Park expanded to the east, the newer sections were designed to have a more natural, parklike feel. Laid out in typical Victorian style, the gardens had long lanes leading between beds of vivid annuals. The 800 trees and flowering shrubs that were planted represented more than 200 native and exotic varieties. Because of problems with deer and cattle, the park was fenced during its early years. California fan palms (*Washingtonia filifera*) planted in 1882 still flourish along the perimeter of today's Capitol Park. A circular path, planted in 1882 with alternating California fan palms and English elm (*Ulmus minor*), was used as a carriage path and shady walk between the Capitol building and

the State Fair's Agricultural Pavilion, located in the area at 15th and N Streets and in use from 1884 to 1905. The pavilion was demolished in 1908, the site of which is now a native plant garden. The same year, the one-story State Insectary was completed in the park near the corner of L and 13th Streets, after the 1906 loss of the state insectary in the San Francisco earthquake and fire. Designed to house insect-related experiments in collecting, breeding and distributing beneficial insects, the building now houses ground keeping activities for Capitol Park (California State Capitol Museum 2016; Historic State Capitol Commission 2013).



Source: Regnery 1983

Figure 4.12-1 Photograph of the State Capitol Building and Capitol Park (west end) ca. 1885–1895 (view to south)

The State Capitol building was renovated between 1906 and 1908. Improvements included new heating, ventilating, lighting, and plumbing systems; sanitation; fireproofing; a new elevator system; a telephone exchange; removal of old stairways to gain space for additional rooms; a new roof; and exterior paint. Areas around the building were excavated to admit light and air into the basement. Compressed air drills were used to cut openings through the foundation walls, and then retaining walls around those areas were built about 10–12 feet from the building. The original wood beams supporting the roof were replaced by 10-ton steel trusses. A fourth story, complete with windows, was created by raising the roof and lowering the ceilings of the Senate and Assembly Chambers by 7 feet. The interior of the building was also painted and decorated (Woodward 1981).

The largest change to the project site was the addition of the Annex. Nearly 80 years after it was completed, the original Capitol building was enlarged with the addition of the Annex which was appended to the rear (east) elevation of the original building. Plans originated during the 1930s and 1940s, and the design was supervised by State Architect Anson Boyd. Construction began in June 1949, the building was inspected in December 1951, and it was occupied in 1952. The Annex was built to hold offices for the governor, lieutenant governor, legislators, and other State officials. The East Apse was removed from the center of the east side (rear) of the original 1874 Capitol building, and the new five-story Annex, was then appended to the east elevation of the four story Capitol. The five-story Annex floor plates did not align with the floors of the Capitol with the exception of the third floor of the Annex aligning with the second floor of the Capitol. The Annex encroached on Capitol Park but was attached to the Historic Capitol and meant to appear as a continuous addition. Additionally, Capitol Park was re-landscaped as part of the

Annex design, including eliminating the terraces and removing the stone steps and pillars that accommodated the raised landscaping. The lawn was graded to a gentle slope, and new sidewalks and a stone patio were installed that helped direct foot traffic to the new, busier east wing.

The bottom two stories of the Annex, which form the base of the building, are clad in granite; the upper three stories are clad with smooth stucco. The five-story Annex has an underground garage with secured road access from both L and N Streets. A one-story, glass-walled building that houses a security entrance for visitors and staff was later appended to both the north and south sides of the Annex. The last major renovation of the 40-acre, 10-block area encompassing Capitol Park, conducted between 1948 and 1951, was related to construction of the Annex. Along with a variety of native and exotic trees and flowering shrubs, there are numerous points of interest, memorials, and monuments incorporated into Capitol Park. Among these is a granite slab that is inset level with the ground surface at the western edge of the project site along 10th Street. The 2,400-pound slab had previously sealed the Capitol's time capsule inside the cornerstone at the northeast corner of the building (California State Capitol Museum 2016). The slab has three separate metal plaques: one designates the Capitol Complex as a State Historical Landmark (No. 872), the second is a Heritage '76 designation, and the third describes the previous location of the slab. It was inset at its present location to commemorate the close of California's Bicentennial Restoration Project, whereby the Capitol building was returned to its 1906 grandeur. The Capitol building, Capitol Park, and nearby buildings are serviced by a network of surface streets, parking lots, and Sacramento's urban light-rail mass transit network, which began service near the Capitol in 1987.

As the 1950s and 1960s progressed, the growing size of the government meant that plans for more space for the Capitol were frequently discussed. Several plans, including the idea of completely rebuilding the Capitol and moving to high rise towers, were considered, but in the end, restoration of the seismically unsound Historic Capitol won out. Seismic retrofitting was completed in 1974, and a restoration of the Historic Capitol building was undertaken from 1975 to 1982, costing \$42 million (Dreyfuss + Blackford Architecture and Page & Turnbull 2006). In the ensuing years, some of the heritage trees have been lost because of age and storm damage. In 2016, two monumental 16-ton, granite gateposts, which had been part of an ornate fence system encircling Capitol Park from 1889 to 1952, were placed at the west entrance of the Capitol building adjacent to the north and south sides of the lower steps. DGS maintains Capitol Park and the two adjacent blocks bounded by 9th, 10th, L, and N Streets immediately west of the State Capitol. These two blocks were secured in 1917 for the Capitol Extension Group (State Office Building No. 1 [Jesse M. Unruh Office Building], Stanley Mosk Library and Courts Building, and Capitol Fountain Plaza), which was completed in 1928.

Growth of Modern Capital Neighborhood

Sacramento continued to grow in the 1860s and became more culturally diverse as various ethnic groups, such as African American, Chinese, German, Irish, Italian, Portuguese, and Japanese immigrants, came to the region seeking employment, many because of construction of the first transcontinental railroad. The majority of the immigrants were clustered in ethnic neighborhoods in what came to be known as the West End, defined roughly as the area from the riverfront eastward to 10th Street and from the Southern Pacific Railroad railyards south to R Street.

With construction of the new State Capitol building, between 1860 and 1874, the area surrounding the Capitol building soon became a popular residential neighborhood that boasted fashionable houses. Sanborn Fire Insurance maps from 1895 depict opulent Italianate and vernacular style family homes fronting the L, N, and 10th Street blocks north, south, and west of the Capitol building, with most of the parcels along 15th Street east of Capitol grounds vacant. A row of California fan palms, planted in 1882, formed a border between Capitol Park and the surrounding residences. An 1880 Plan of the Sewage System, published in 1886, shows an 18-inch main sewer pipe through Capitol Park along 13th Street, with a connection west to the Capitol building.

Despite the presence of many recognizably modern city features, such as paved asphalt streets and cement sidewalks, urban sanitation was a blight on the beautiful Capitol neighborhood. Privies in circa 1880 Sacramento were little more than holes dug in the backyard. Even upper-class homes might be served by little more than a private cesspool. Hookups to sewers if they were available, along with some construction specifications for cesspools, were mandated by a City ordinance in 1883. Although some of the wealthier residences and some civic buildings had indoor plumbing by the 1870s, most of the city did not. By 1902, residential privies still served the needs of approximately 5,500 homes (Brienes 1978; Hamilton et al. 2005).

In 1900, Sacramento had a population of 30,000, covering an area of about 4 square miles. A decade later, the population reached 45,000. City streets averaged 80 feet wide and had electric lights. M Street (now Capitol Mall/Capitol Avenue) and Front Street remained 100 feet wide. Gas was in general use for illumination in the city by the 1860s. Electric light became available in 1895, and by the turn of the century, systems of electric trolleys were replacing horse carts. Passenger service near the Capitol building was also provided by the Northern Electric Railway (later Sacramento Northern) along M Street (Capitol Mall) and the Central California Traction Company Railroad along 8th Street. Water mains were established primarily on an east-west orientation in the streets and neighborhood alleyways.

By 1914, Sacramentans were enthusiastic motorists, with use nearly doubling to 6,500 vehicles in 2 years. New residential developments attracted middle-class and upper-class families away from the city core, although the subdivisions were still connected to downtown via urban electric railways or street cars. Homes in the upper-class Capitol Park neighborhood now had garages along the rear alleyways, although many were also divided into rentals. The neighborhood changed as apartment buildings, hotels, private office buildings, State government buildings, a church, and a gas station were constructed along the blocks bordering Capitol Park. Among the extant buildings that front the project site from this era are the six-story Lewis Apartment building, completed in 1925 on N Street at the corner with 11th Street; the Capitol Extension Group, completed in 1928 on the two blocks across 10th Street from the Capitol building; and three State office buildings completed between 1936 and 1939 across N Street between 10th and 13th Streets: Department of Motor Vehicles building (currently California Food and Agriculture building), Public Works building (currently housing Caltrans), and Legislative Office Building.

Modern State Government Buildings around Capitol Park

In 1917, the city donated two blocks bounded by 9th, 10th, L, and N Streets immediately west of the State Capitol building to house two new government buildings. Construction of State Office Building No. 1 (now Jesse M. Unruh Office Building) and the Stanley Mosk Library and Courts Building, two buildings that were part of the Capitol Extension Group, began in 1922 and was completed in 1928. Another part of the Capitol Extension Group, the Capitol Fountain Plaza, located between the two buildings, was operating 2 years before the buildings were finished.

In 1929, an urban planning firm proposed that monumental buildings be constructed on M Street west of the Capitol building (present-day Capitol Mall). During the mid-1930s, additional office buildings were added across N Street facing the Capitol building: the Department of Motor Vehicles building in 1936 (currently California Department of Food and Agriculture building), the Public Works building in 1937 (currently housing the California Department of Transportation [Caltrans]), and the Legislative Office Building (formerly Business and Professions building) in 1939.

In 1940, the State Planning Board and Division of Architecture recommended that State office buildings be constructed around Capitol Park instead of to the west along M Street/Capitol Mall. In response to this recommendation, all State buildings and additions were constructed immediately around the Capitol building and Capitol Park until the 1950s. As the government continued to grow, subsequent development was no longer restricted to the vicinity around the Capitol building. Three new government buildings were completed on Capitol Mall in the 1950s. Three additional buildings were built in the late 1940s/1950s facing O Street (Lemon and Davis 2018). Between 1949 and 1952, the original Capitol building was enlarged by construction of the Annex.

By 1960, the State occupied 23 publicly owned buildings (including annexes) and 19 leased buildings (including offices, special purpose buildings, and warehouses). The State owned nearly 70 acres in downtown Sacramento that included Capitol Park (40 acres), garages, parking lots, warehouses, and the Governor's Mansion on H Street between 15th and 16th Streets (built in 1877 and now a State Historic Park). In 1960, the first California State Capitol Plan was created by the Capitol Building and Planning Commission. The physical plan focused on the area bounded by L, Q, 7th, and 17th Streets and promoted the creation of seven superblocks, or pedestrian islands, by closing streets within the plan area to vehicular traffic and advocated purchasing land within the plan area before implementation began and property values increased. Policy changed in 1967. Meanwhile, cleared sites were used for surface parking lots, and leasing space from the private sector for State office needs became the dominant policy. Construction of the new 10th and O Street Office Building is underway on one such lot. Since 1977, DGS and the Capitol Area Development Authority have administered the updated 1977 Capitol Plan to guide smart growth development of the Capitol Area Plan.

RECORDS SEARCHES, SURVEYS, AND CONSULTATION

Archaeological Resources

Archival and literature searches encompassing a half-mile radius around the project site were performed on March 15, 2019, and June 21, 2019, at the North Central Information Center (NCIC) of the California Historical Resources Information System, housed at California State University, Sacramento. The records search included a review of site location base maps; prior reports; other records on file at the NCIC; and listings in the NRHP and CRHR in the Historic Property Data File for Sacramento County (2012), *California Inventory of Historic Resources* (1976), *California Historical Landmarks* (1996), and *California Points of Historical Interest* (1992 and updates). Additional archival research of sources not available at the NCIC was conducted using Sanborn Fire Insurance Maps, historic maps, aerial photographs, and listings from the *Sacramento Register of Historic & Cultural Resources*.

Archaeological Resource Studies Near the Project Site

Numerous cultural resource studies have been undertaken in the project vicinity, including more than 40 within a quarter-mile of the project site. Two prior studies included a portion of the project site: an inventory report completed in 2013 for a technological facilities upgrade in the existing Annex and a communications upgrade report completed in 2011 for the Lewis Apartments at 1100 N Street that covered a portion of the project site proposed for the new underground parking garage. Nineteen studies completed between 1998 and 2017 were related to communications infrastructure (e.g., fiber optic line, cell towers), eight were architectural surveys or evaluations completed between 1976 and 2014, and one was an overview of cultural resources in the Central Business District completed in 1981. An additional 15 studies completed in the search radius between 1987 and 2018 focused on different aspects of archaeological investigations ranging from surveys to monitoring and salvage efforts.

The archaeological studies in the search radius include two salvage archaeology studies by PAR Environmental Services in 2000 for the Stanley Mosk Library and Courts Building and the Sheraton Grand Hotel project, monitoring for the Capitol Park Homes project by Compas in 2000, a research design by Hamilton and others in 2002 for evaluation of the archaeological collection recovered from the Capitol Area East End Improvement Project, and a report by Windmiller in 2004 on excavations for an elevator and underground utilities at the Leland Stanford Mansion. A study and significance evaluation of brick sewer remains was completed by Batha in 1996 and by Peak & Associates in 1997. Tremaine and Associates completed a report on data recovery excavations in 2005 on the Plaza Lofts project, a sensitivity study for the 831 L Street project in 2007, and a report on monitoring for a light-rail extension in 2009. PAR Environmental Services completed a series of Caltrans reports in 2012 for the 12th Street Corridor project, and Natural Investigations Company filed an inventory report in 2018 for DGS's 10th and O Street Office Building project.

The results of additional studies in downtown Sacramento conducted within a 1-mile radius of the project site that cover important archaeological discoveries are described in the following section on known archaeological resources near the project site.

Known Archaeological Resources Near the Project Site

The records maintained by the NCIC indicate that no archaeological resources have been previously recorded within the project site. No prehistoric or historic-era archaeological resources or ethnographic sites were identified during survey of the project site on March 29, 2019. The archaeological survey was constrained by the existing Annex, appended south entrance building, and hardscape (walkways, steps, and Annex garage access road). Ground visibility was poor (0–10 percent) in the landscaped areas, constrained by the density of vegetation cover (grasses, native and exotic trees, shrubs, and flowers) within Capitol Park.

The records search indicates that one prehistoric site and eight historic-era resources have been previously recorded within the quarter-mile search radius outside the project site. The eight historic-era resources include one archaeological site, two features, one historic district, and four railroads. .

Archaeological Sensitivity

Based on the history of infill and construction of the original Capitol building and the Capitol Park gardens and pathways, early 1900s improvements to the original Capitol building, construction of the existing Annex and road

access to its basement garage, excavation for associated underground utility and communications infrastructure, and of the locations of known archaeological sites in the project vicinity, the potential to discover prehistoric or ethnohistoric deposits or features is considered to be high and the potential to locate undisturbed historic-era archaeological deposits or features is considered to be low during construction within the current project footprint.

Intact prehistoric or ethnohistoric deposits or features may remain at depth within the project footprint. Considering the number of archaeological discoveries documented in the city west of Business 80, there are likely many more prehistoric or ethnohistoric sites in downtown Sacramento that have not yet been uncovered and that were probably located above the floodplain on former landscape features that are no longer visible on the surface. High ground near rivers, marshes, and other freshwater settings was ideal for habitation and resource extraction by Native Americans. Natural elevated areas are thus considered to have a high sensitivity for prehistoric archaeological sites, as indicated by archaeological and geomorphic studies. The project site is close to a paleo-sandbar that is believed to have been located between approximately 7th and 10th Streets and from E Street south to Broadway. The city has mapped this former elevated landform area as having a high sensitivity for archaeological sites (City of Sacramento 2015: Figure 6.4-1). These results demonstrate that prehistoric sites can be found in downtown Sacramento not far below the current street grade or at depth.

It is extremely unlikely that undisturbed, subsurface historic-era archaeological deposits or features remain within the project footprint. The history of the project site is unique in that there has been little development other than the State Capitol building, Annex addition, and Capitol Park landscape. Before construction of the original Capitol building in 1860–1874, the few scattered buildings in the original four-block, semirural area bounded by 10th, 12th, L, and N Streets were sold and removed. The ground surface in the four-block area was also covered by 6–10 feet of sediment hauled from the river between 1862 and 1874, and nearly 80 years later, the Annex was constructed within the project site. The four-block area containing the project site is enclosed within the landscaped Capitol Park grounds and bordered by roadways that were established as part of the original town grid developed in 1848. The creation of Capitol Park in the late 1860s to enhance the State Capitol building effectively separated the project site from development of the surrounding late 1800s/early 1900s residential neighborhood and from the mid-1900s transformation of the neighborhood that faced the park to a more modern urban setting.

HISTORIC ARCHITECTURAL RESOURCES STUDY AREA

The study area for the historic architecture evaluation (Figure 4.12-2) encompasses one built-environment resource consisting of the State Capitol Complex (Historic Capitol and Annex), and one historic district, the California State Government Building District (CSGBD) (Table 4.12-1). The study area was drawn to account for potential direct and indirect impacts resulting from the proposed project.

Table 4.12-1 Built Environment Resources Located in the Study Area

Address	Resource Name	Year Built	OHP Status
Multiple	State Capitol Complex	1874; 1951	1S – NRHP* Listed, site
Multiple	Capitol Extension Group	1929	1D – NRHP Listed, district
Multiple	California State Government Building District	1874-1962	1D – NRHP Listed, district
1020 N Street	Legislative Office Building	1939	1CS – CRHR** Listed, building
1120 N Street	Department of Transportation Building	1937	1CS, CRHR Listed, building
1220 N Street	California Department of Food and Agriculture	1936	1CS, CRHR Listed, building
1400 10th Street	Blue Anchor Building	1932	1CS, CRHR Listed, building

Note: regarding nomenclature: For the purposes of this analysis, buildings will be named according to their current, rather than their original/historic name. Whenever possible, former names will be noted.

*National Register of Historic Places

**California Register of Historical Resources

HISTORICAL RESOURCES

Summary of Historical Resources within Study Area

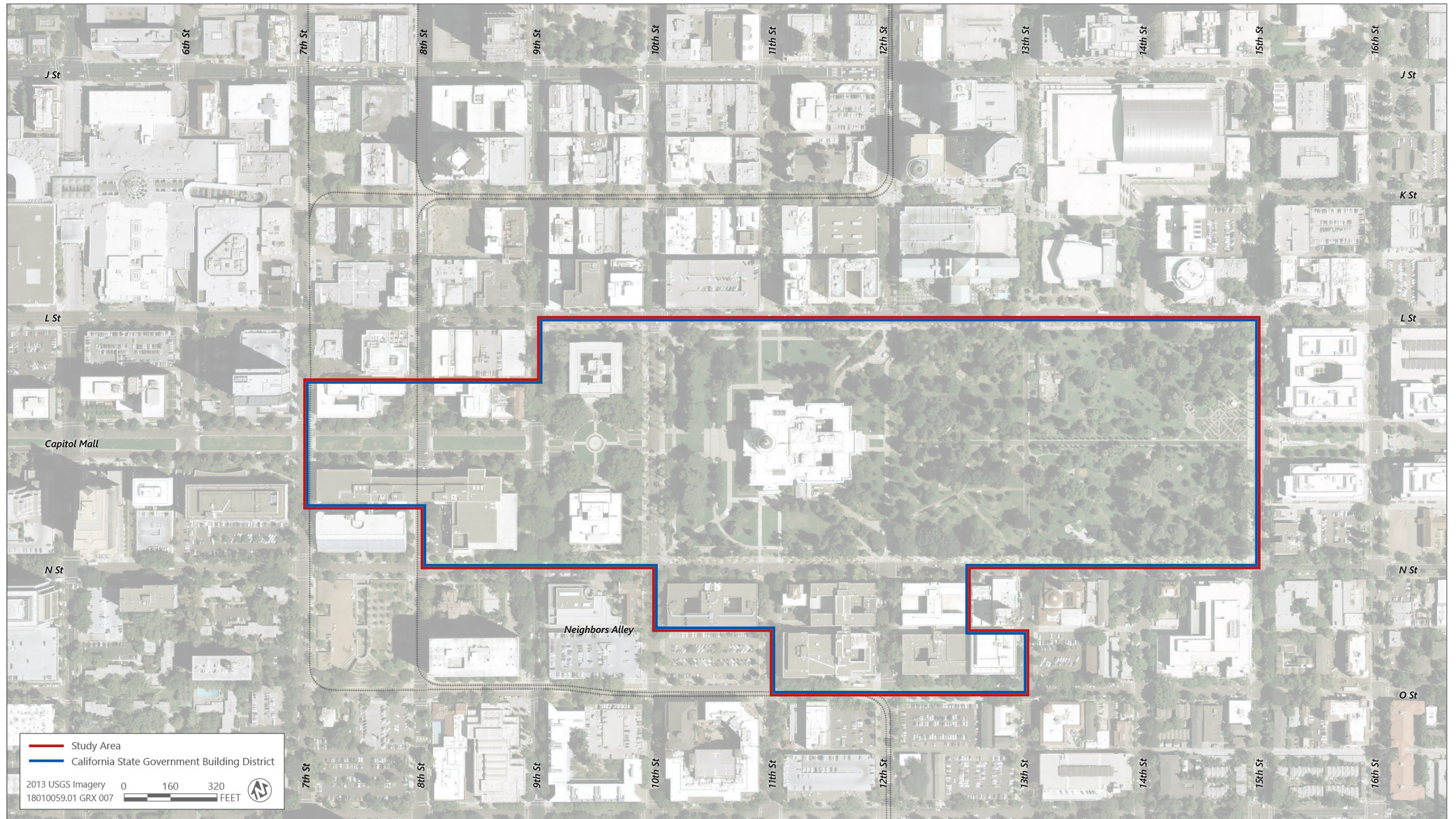
Seven CEQA historical resources are located in the study area. A summary of the CEQA historical resources are provided below.

State Capitol Complex

The State Capitol Complex is considered a CEQA historical resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A for its function as California's seat of government and under Criterion C for its monumental architecture and landscape design. The Capitol building is also a California Historical Landmark. The State Capitol Complex consists of the State Capitol Building, composed of the Historic Capitol, the Capitol Annex, and Capitol Park. The Historic Capitol, known as the West Wing, was built between 1860 and 1874, and the Capitol Annex, known as the East Wing, built between 1949 and 1951. The Capitol building is set within Capitol Park, which is approximately 40 acres of green space, walkways, and memorials. Within Capitol Park is the Insectary, built in 1908, which is an Arts and Crafts style bungalow. The Historic Capitol building is a monumental Classical Revival design moderated with federal influences, which consists of two virtually identical L-shaped four-story wings separated by a rotunda. The inner and outer dome of the rotunda rises to an overall height of approximately 210 feet. The Historic Capitol's west façade features a temple front, with a full height portico supported by seven granite archways, topped with a triangular pediment that contains five allegorical figures: Minerva, Education, Industry, Justice, and Mining. The West Wing is dominated by cast-iron ornamentation including elaborate moldings, dentils, corbels and pilasters. The Historic Capitol has a concrete foundation, and is built of hard-burned brick, with a facing of granite on basement and ground floors. The rotunda is painted gold, and the floors in between are painted stark white. When the Annex was built between 1949 and 1951, the large apse on the eastern façade that held the state library was demolished and the Annex floors and the historic Capitol floors were misaligned with the exception of the second floor of the Capitol and the third floor of the Annex. Although the Annex visually obscures the eastern façade, it was designed to stand two feet from the exterior wall, preserving many architectural features, but attaches to the Historic Capitol (Dreyfuss and Blackford Architecture, Page & Turnbull 2006: 3.25).

The Annex is designed in the Mid Century Moderne style with references to stripped classicism. It is visually subservient to the Historic Capitol, which was achieved in part by limiting the height to below the base of the rotunda. The building is six stories high, with a five-bay organizational scheme and a flat roof. Given the later period of construction, the Annex uses more modern materials than the West Wing, with a steel skeleton covered in reinforced concrete, with exteriors finished in granite, stucco, extruded aluminum and cast aluminum details. The east façade of the Annex, which faces Capitol Park, features ten large cast aluminum spandrel panels depicting California flora and fauna, and the seven panels around the doorways include depictions of California industry including the Bay Bridge, factories, trains, and airplanes. The center panel features the seal of California.

Both the Historic Capitol and the Annex are defined by their massing, respective rooflines and roof profiles, granite facing, portico, terraces and granite steps, and ornamental elements, such as cast iron columns, capitals, pilasters, cornices, brackets, and entablatures (Historic Capitol) and aluminum spandrel panels, grillwork, and balustrade (Annex). Given their respective dates of construction, the materials reflect the time and style of each wing and tend to differentiate their character-defining features as defined in the previous recordation. The windows and window frames are character-defining features for both buildings, but the Historic Capitol has wood-sash windows and cast iron window frames, while the Annex has aluminum windows and window frames. Similarly, the location, layout, and decorative elements of interior spaces, such as lobbies, corridors, perimeter offices, senate and assembly chambers, and hearing rooms, are important defining features for both buildings. Other defining features of the Annex include wooden signage, theater seating (excluding new upholstery), and undulating east/west corridor walls on floors four and five.



Source: Ascent Environmental in 2019

Figure 4.12-2 Historic Architectural Resources Study Area

The Historic Capitol Building is set within Capitol Park, which is an evolving green space that features plantings, concrete and asphalt walkways, and various memorials. Originally planted with 800 trees and flowering shrubs, the park is laid out in a typical Victorian-era style, with long lanes for walking. Originally, the park was terraced, with stone stairs and balustrades providing access to the Historic Capitol, but on construction of the Capitol Annex from 1949 to 1951 the terracing was graded to a soft slope and the stone stairs and balustrades were removed. The bulk of the park is located east of the Capitol Building, and more than twenty trees, plants and memorials dedicated to various public figures and events are located in close proximity to the Annex. Capitol Park is defined by its circuitous walking paths, variety of memorial trees, plants, gardens and statuary, and its location surrounding the Capitol Building.

Within Capitol Park is the California State Insectary, which was built in 1908 after the 1906 loss of the state insectary in the San Francisco earthquake and fire. The building is Arts and Crafts style, with Japanese influences. It is a one-story building with a low-sloped hipped roof, composed on a dominant front bay flanked on both sides by diminutive wings. The building is finished in concrete, wood, and wood shake shingles. The California State Insectary is located over 600 feet to the east of the Capitol Annex, with various trees and plantings obscuring the view between the two.

Capitol Extension Group

The Capitol Extension Group is considered a CEQA historic resource because it was listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A as the first extension of California State Government offices and buildings in Sacramento, and under Criterion C for its Beaux Arts architecture. The Capitol Extension Group consists of two Beaux Arts style buildings, the Stanley Mosk Library and Courts building and the Jesse M. Unruh Office building (formerly State Office Building No.1) and the Capitol Fountain. The pair of similarly styled Beaux Arts buildings are formally composed across green space and a circular drive, allowing for a view of the Historic Capitol from Capitol Mall. The buildings are five-stories high, clad in Sierra white granite and granitex, an architectural terra cotta. Both buildings feature a three story portico with a decorative frieze.

California State Government Building District

The CSGBD is considered a CEQA historic resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A as a reflection of the expansion of state government from statehood until the 1960s, and under Criterion C for the architectural styles of the individual buildings that reflect popular styles and trends. The State Printing Office (State Archives) at 1020 O Street, the Franchise Tax Building (State Office Building) at 1021 O Street, and the California Department of Food and Agriculture Annex at 1215 O Street have been demolished since the original 1981 survey. The following group of 12 buildings and one park (13 total contributing elements) remain extant:

- ▶ State Capitol Building;
 - Capitol Park;
 - Capitol Park Service Area (the Insectary);
- ▶ Stanley Mosk Library and Courts Building, 914 Capitol Mall;
- ▶ Jesse M. Unruh Office Building (formerly State Office Building No. 1), 915 Capitol Mall;
- ▶ Education Building (Rehabilitation Building), 721 Capitol Mall;
- ▶ Personnel Building (State Personnel Building), 801 Capitol Mall;
- ▶ Employment Building (Employment Development Building), 800 Capitol Mall;
- ▶ Legislative Office Building (formerly Business and Professions building), 1020 N Street;
- ▶ Department of Transportation building (formerly Public Works office building), 1120 N Street;
- ▶ Department of Transportation Annex (formerly Public Works Annex), 1121 O Street;
- ▶ California Department of Food and Agriculture building (formerly Department of Motor Vehicles Building), 1220 N Street; and
- ▶ Veteran's Affairs Building, 1227 O Street

Legislative Office Building (formerly Business and Professions Building)

The Legislative Office Building is considered a CEQA historical resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A for its association with the expansion of California state government and under Criterion C as an example of Moderne architecture. The Legislative Office Building was originally known as the Business and Professions building and was built in 1939. It is a five-story symmetrical building with a flat roof, designed in the Moderne style. Facing north onto Capitol Park, the five-story building features distinctive elements of PWA (Public Works Administration) Moderne, architecture with some International Style influences: a central pylon rises four stories above the entrance, which is further noted by a horizontal curved porch, green terra-cotta tiles, and decorative transom grilles; floors denoted by alternating bands of concrete and casement windows surrounded by a bezel and separated by narrow fluted panels; and a fluted cornice caps the building.

Department of Transportation Building (formerly Public Works Building)

The Department of Transportation Building is considered a CEQA historical resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A for its association with the expansion of California state government and under Criterion C as an example of Moderne architecture. The Department of Transportation Building was originally known as the Public Works building and was built in 1937. It is a five-story symmetrical building with a flat roof, designed in the Moderne style. The centered main entrance is sheltered by a horizontally accented canopy with curved corners, and outlined by sculptural panels below a narrow, nearly full-height window framed by pilasters. The vertically oriented central portion of the primary façade is stepped and punctuated by glass-block windows. Balancing this verticality are horizontal scallop-molding courses and long rows of original steel windows outlined by beveled frames between fluted piers on the second to fifth floors.

California Department of Food and Agriculture Building (formerly Department of Motor Vehicles Building)

The California Department of Food and Agriculture Building is considered a CEQA historical resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A for its association with the expansion of California state government and under Criterion C as an example of Moderne architecture. The California Department of Food and Agriculture Building was formerly known as the Department of Motor Vehicles Building and was built in 1936. It is a three-story symmetrical building with an H-shaped footprint with a flat roof, designed in the Moderne style. The roof features a parapet, and the building is constructed of reinforced board-formed concrete.

Blue Anchor Building (formerly the California Fruit Exchange)

The Blue Anchor Building is considered a CEQA historical resource because it is listed in the NRHP with historical significance under Criteria A and C. It is significant under Criterion A for its association with the California Fruit Exchange that operated in the building from 1931 to 1966, and under Criterion C for its Spanish Colonial Revival Style. Built in 1931, the Blue Anchor Building is constructed of steel and concrete, finished in stucco, and capped by a low-pitched red tile roof. The building features a balconette, decorative features at the roofline, and a tile staircase accessing the recessed entrance, which is framed by large engaged columns supporting an entablature, as well as a secondary balconette along O Street. Its most distinctive architectural feature is a two-and-a-half story tower at the junction of the two wings.

CONSULTATION EFFORTS

Native American Consultation

During project planning, a Native American contact program was initiated pursuant to AB 52. On March 11, 2019, the NAHC responded to the request from DGS with a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the project. In addition, an electronic communication dated April 1, 2019, requested from the NAHC a search of the Sacred Lands Database managed by the NAHC. In its response, dated April 15, 2019, the NAHC stated that its search of the Sacred Lands Database was negative. Letters to tribal representatives about the Capitol Annex Project specifically were sent on April 10, 2019, inviting consultation pursuant to AB 52.

The United Auburn Indian Community of the Auburn Rancheria responded by email on April 11, 2019, and by letter dated April 25, 2019, requesting consultation pursuant to AB 52. By email on April 19, 2019, and on May 7, 2019, Wilton Rancheria and the Lone Band of Miwok Indians responded, respectively, requesting consultation pursuant to AB 52. Consultation meetings with tribal representatives were conducted on April 8, April 17, April 24, May 22, and June 12, 2019. AB 52 consultation was still underway at the time of publication of this Draft EIR.

While other federally recognized tribes may claim the project area as part of their ancestral territory, no other tribes have requested formal consultation or additional information.

Built Environment Architectural Resource Consultation

On July 12, 2019, letters requesting information regarding potential historic-era architectural resources in the project area were sent to the following interested parties:

California Council for the Promotion of History
CSU Sacramento, Department of History
6000 J Street
Sacramento, CA 95819-6059

Carson Anderson
City of Sacramento Historic Preservation Director
300 Richards Boulevard
Sacramento, CA 95811

Dylan McDonald
Center for Sacramento History
551 Sequoia Pacific Boulevard
Sacramento, CA 95811-0229

Jackie Whitelam, Chair
City of Sacramento Preservation Commission
300 Richards Boulevard, 3rd Floor
Sacramento, CA 95811

Sacramento Room
Sacramento Public Library
828 I Street
Sacramento, CA 95814

Sacramento Historical Society
P.O. Box 160065
Sacramento, CA 95816-0065

California State Archives
1020 O Street
Sacramento, CA 95814

California State Capitol Museum
California State Capitol
1315 10th Street
Sacramento, CA 95814

Dori Moorehead, Executive Director
California Museum
1020 O Street
Sacramento, CA 95814

Marcia Eymann, Executive Director
Sacramento History Museum
101 I Street
Sacramento, CA 95814

Preservation Sacramento
P.O. Box 162140
Sacramento, CA 95816

Historic State Capitol Commission
Koren R. Benoit, Executive Director
1020 N Street, Room 255
Sacramento, CA 95814

As of July 26, 2019, no responses from any of these parties have been received.

4.12.3 Impacts and Mitigation Measures

METHODOLOGY

For purposes of discussion throughout the following impacts and mitigation measures, the term “historic resources” includes extant architectural resources (e.g., buildings and structures), historic landscapes, and subsurface historic-era features (such as wells, privies, or foundations). “Prehistoric resources” refers to Native American sites, features, or burials.

Although there is a low likelihood that intact historic-era cultural deposits or features are present within the project site, the proximity of the project site to former high ground suggests a high probability for the presence of intact prehistoric deposits or features at depth within the project footprint. The results of background research indicate that substantial prehistoric and historic deposits containing significant data have been discovered in similar settings in downtown Sacramento. Past projects have had success locating buried cultural resources using historic maps, photographs, archival data, and consultation.

Restricted surface visibility in urban areas provides only basic information on the impact of construction on subsurface archaeological deposits. Consequently, the results of a review of historical documents and previous research provide the primary basis for assessing project impacts on archaeological resources. Factors taken into account include the general history of the area; potential for the presence of prehistoric resources; the timeframe of development of the Historic Capitol building, Capitol Park, and surrounding neighborhood; potential for the presence of historic-era artifact-filled features; and later period development of the Annex and underground utility and communications infrastructure that would have disturbed archaeological features. All these factors were assessed to rate the potential for the project to affect archaeological resources as high, moderate, or low:

- ▶ High potential for impacts on cultural resources was considered likely when the proposed component was in an area where no known subsurface disturbances had previously occurred and archival research indicated the presence of historic-era components before water and/or sewer hookup and municipal garbage pickup.
- ▶ Moderate potential for impacts on cultural resources was considered likely when the proposed component was in an area where no known belowground disturbances had previously occurred and archival research indicated a potential for prehistoric deposits or historic-era artifact-filled features.
- ▶ Low potential for impacts on cultural resources was considered likely when the proposed component occurred in an area of known ground disturbance. Although the potential to encounter archaeological deposits was considered low under these circumstances, the possibility that isolated deposits or features may remain intact cannot be dismissed.

THRESHOLDS OF SIGNIFICANCE

An impact on cultural resources would be significant if implementation of the Capitol Annex Project would:

- ▶ cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines;
- ▶ cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe; or
- ▶ disturb any human remains, including those interred outside of formal cemeteries.

Section 15064.5 of the State CEQA Guidelines defines “substantial adverse change” as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.12-1: Potential for Impacts on Significant Historic Archaeological Resources

Implementation of the Capitol Annex Project would result in the demolition and reconstruction of the Annex, excavation and construction of a new underground visitor/welcome center, and excavation and construction of a new underground parking garage. Although previous site disturbances and construction likely removed any significant historic archaeological features, there are some areas within the project site that may yet be undisturbed, thus potentially retaining significant historic archaeological resources. Because earthmoving activities resulting from the project could potentially affect significant historic archaeological resources within these undisturbed areas, this impact would be **potentially significant**.

The Historic Capitol building, to which the existing Annex is appended, and the original four-block area of Capitol Park bounded by 10th, 12th, L, and N Streets have experienced periods of early development activity likely represented by historic archaeological remains, beginning in the 1850s through renovation of the original Capitol building in 1906-1908. Such remains may represent some of the earliest urban development within Sacramento. Artifact-filled features from the 1850s through 1908 could contain important data about the lives of early Sacramento legislators and other State officials, or about the lives of lesser-known business professionals, skilled workers, and immigrants who worked in or constructed the Capitol building and surrounding gardens. Features could also be present that represent industrial and technological advancements from the initial 1860–1874 construction of the Capitol building to its 1906–1908 modern infrastructure renovation.

Although construction of the Annex between 1949 and 1952, and the later addition of the south entrance building, would have likely removed or degraded any historic archaeological features that may have been present, there may be portions of the project site that remain undisturbed and could contain significant intact historic archeological deposits. If these areas have not been disturbed by previous construction activities, remaining artifacts and features could be disturbed or destroyed during project construction. Overall, the project site is considered to have a low potential for the existence of intact historic archaeological deposits. However, because there is potential for earthmoving activities associated with project construction to potentially affect significant historic resources in previously undisturbed areas, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.12-1: Implement Monitoring and Response Measures If Significant Historic Archaeological Resources Are Discovered

A cultural resources awareness training program shall be provided to all construction personnel active on the project site during earthmoving activities. The first training shall be provided prior to the initiation of ground-disturbing activities. The training shall be developed and conducted in coordination with a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists. The program shall include relevant information regarding sensitive cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program shall also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential archaeological resources or artifacts are encountered.

Where ground-disturbing activities occur in native soils, or there is no evidence of extensive past ground disturbances, a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists shall monitor ground-disturbing activities. If evidence of any historic-era subsurface archaeological features or deposits is discovered during construction-related earthmoving activities (e.g., ceramic shard, trash scatters, brick walls), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist can assess the significance of the find. If after evaluation, a resource is considered significant, all preservation options shall be considered as required by CEQA, including possible data recovery, mapping, capping, or avoidance of the resource. If artifacts are recovered from significant historic archaeological resources, they shall be housed at a qualified curation facility. The results of the identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.12-1 to a **less-than-significant** level by requiring preconstruction training, construction monitoring, and, in the case of a discovery, preservation options (including data recovery, mapping, capping, or avoidance) and proper curation if significant artifacts are recovered.

Impact 4.12-2: Potential for Impacts on Significant Prehistoric Archaeological Resources and Tribal Cultural Resources

There are no known significant prehistoric archeological resources or tribal cultural resources on the project site. However, earthmoving activities associated with project construction could disturb or destroy previously undiscovered significant subsurface prehistoric archaeological resources and/or tribal cultural resources. This impact would be **potentially significant**.

Evidence of prehistoric occupation of the Sacramento region dates back several thousand years. Cultural deposits of most early or long-term occupation sites in the region are marked by cultural layers alternating with flood-deposited silts. Sites such as those discovered on H and I Streets have cultural layers that are now at least 9–10 feet below the current street level. Many sites were buried when the business district was raised and Sutter Lake filled in the 1860s–1870s. As described above for Impact 4.12-1, although the project site is developed and past construction activities may have damaged or removed subsurface cultural resources, there is the potential for subsurface resources, including significant prehistoric archeological resources and resources that would qualify as a tribal cultural resource, to be present where there has been less ground disturbance or where native soils are still intact below the sediment used to raise the ground level in the 1860s–1870s. Project-related construction activities that require substantial earthmoving could disturb or destroy unknown, undisturbed significant prehistoric archeological resources or tribal cultural resources. Overall, the project site is considered to have a high potential for the existence of intact archaeological deposits. Because there is potential for earthmoving activities associated with project construction to affect significant prehistoric archeological resources, or resources that would qualify as tribal cultural resources, in areas with little or no previous disturbance, this impact is **potentially significant**.

Mitigation Measures

Mitigation Measure 4.12-2: Implement Monitoring and Response Measures If Significant Prehistoric Archeological Resources and Tribal Cultural Resources Are Discovered

This mitigation measure expands on the actions included in Mitigation Measure 4.12-1 to also address encountering unknown prehistoric cultural resources and tribal cultural resources. A representative from each culturally affiliated Native American tribe that has participated in consultation with DGS will be invited to participate in the development and delivery of the cultural resources awareness training program included in Mitigation Measure 4.12-1. Tribal monitors shall be invited to participate in the delivery of the cultural resources awareness training program. The awareness program shall include relevant information regarding sensitive tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The worker cultural resources awareness program shall also describe appropriate avoidance and minimization measures for resources that have the potential to be located on the project site and shall outline what to do and whom to contact if any potential prehistoric archaeological resources or tribal cultural resources are encountered. The program shall also underscore the requirement for confidentiality and culturally appropriate treatment of any finds of significance to Native Americans and behaviors consistent with Native American tribal values.

Where ground-disturbing activities occur, a qualified archaeologist meeting the U.S. Secretary of the Interior guidelines for professional archaeologists and a Native American monitor (or monitors) shall monitor ground-disturbing activities and/or the handling and placement of imported material brought to the project site for fill or other purposes to determine if archeological material may be imported with the native soil. Furthermore, tribal monitors shall have the opportunity to examine the underside of sections of demolished concrete slabs, as cultural materials that may have been on the ground surface during initial construction could have adhered to the concrete. Tribal monitors shall have the opportunity to inspect a portion of excavated soils. The frequency and volume of excavated soil inspections (e.g., proportion of bucket loads inspected) shall be authorized by the State in consultation with consulting tribes and shall be determined prior to the start of earth moving activities. The final destination for each truckload of excavated soil shall be known before the truck leaves the project site in case a need arises to inspect the material. Native American monitors and monitoring archeologists shall be provided the contact information for the individual who tracks the disposal location(s) for excavated material.

Interested Native American tribes shall be provided at least 7 days' notice prior to the initiation of ground-disturbing activities and/or concrete slab removal. The determination for initiating or ending monitoring of ground disturbance, imported soils, or excavated soils shall be made based on coordination between the qualified archaeologist and Native American monitor, with a final determination made by DGS in consultation with the consulting tribes. This paragraph does not alter the authority of tribal organizations to conduct monitoring.

If evidence of any subsurface prehistoric archaeological features or deposits is discovered during construction-related earth-moving activities (e.g., lithic scatters, midden soils), all ground-disturbing activity in the area of the discovery shall be halted until a qualified archaeologist and/or Native American representative can assess the significance of the find. Buffer distances between the discovery and construction activities shall be determined in the field by the qualified archaeologist and/or Native American monitor. If an exclusion zone is to be maintained for more than 8 hours, the border of the exclusion zone shall be marked with orange construction fencing, stakes and caution tape, or similar easily visible material. If an exclusion zone is to be maintained overnight, site security shall be notified that no persons may enter the exclusion zone until the qualified archeologist or Native American monitor has returned to the site.

If after evaluation, a resource is considered significant, or is considered a tribal cultural resource, all preservation options shall be considered as required by CEQA (see PRC Section 21084.3), including possible capping, data recovery, mapping, or avoidance of the resource. If artifacts are recovered from significant prehistoric archaeological resources or tribal cultural resources, the first option shall be to transfer the artifacts to an appropriate tribal representative. Cultural soils (e.g., soils surrounding biological material that has decomposed) shall also be considered in determining the recovery and transfer of tribal cultural materials. If possible, accommodations shall be made to rebury/reinter the artifacts and cultural soils at the project site. The Joint Rules Committee and DGS, in coordination with the consulting tribes, shall identify at least one suitable reburial location prior to the initiation of ground-disturbing activities. The results of the

identification, evaluation, and/or data recovery program for any unanticipated discoveries shall be presented in a professional-quality report that details all methods and findings, evaluates the nature and significance of the resources, analyzes and interprets the results, and distributes this information to the public (in a form suitable for public review and absent of sensitive information).

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.12-2 to a **less-than-significant** level by requiring construction monitoring and, in the case of a discovery, preservation options (including capping, data recovery, mapping, or avoidance) and proper care if significant artifacts are recovered.

Impact 4.12-3: Potential Discovery of Human Remains

There are no known cemeteries or burials on the project site. However, earthmoving activities associated with project construction could disturb or destroy previously undocumented human remains. This impact would be **potentially significant**.

As identified above in the discussions of Impacts 4.12-1 and 4.12-2, overall, the project site is considered to have a low potential for the existence of intact historic archaeological deposits but it has a high potential for the existence of intact archaeological deposits. This assessment would also apply to the potential presence of human remains, whether associated with historic or prehistoric occupation. There are no known cemeteries or burials on the project site. However, because there is some potential for earthmoving activities associated with project construction to potentially encounter buried human remains in areas with little or no previous disturbance, this impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.12-3: Implement Response Protocol If Human Remains Are Discovered

Consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act, if suspected human remains are found during project construction, all work shall be halted in the immediate area; the California Highway Patrol (CHP) shall be notified, and an exclusion zone around the find shall be established based on coordination between CHP, the State, tribal monitors, and the archeologist; and the exclusion zone will be visibly marked (e.g., lath and flagging). CHP shall notify the county coroner to determine the nature of the remains. The coroner shall examine all discoveries of suspected human remains within 48 hours of receiving notice of a discovery on private or State lands (Health and Safety Code Section 7050.5[b]). If the coroner determines that the remains are those of a Native American, he or she shall contact the NAHC by phone within 24 hours of making that determination (Health and Safety Code Section 7050[c]). The NAHC shall then assign an MLD to serve as the main point of Native American contact and consultation. Following the coroner's findings, the MLD, in consultation with the State, shall determine the ultimate treatment and disposition of the remains and any associated archeological items and cultural soils.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.12-3 to a **less-than-significant** level by requiring work to stop if suspected human remains are found, communication with the county coroner, and the proper identification and treatment of the remains consistent with the California Health and Safety Code and the California Native American Historical, Cultural, and Sacred Sites Act.

Impact 4.12-4: Potential for Impacts on Historic Architectural Resources

The Capitol Annex Project would cause physical changes within two historic districts and introduce changes to the setting of those two plus a third NRHP-eligible historic district and four individually NRHP-eligible historic buildings. These changes would result in a substantial adverse change to the characteristics that qualify the State Capitol Complex for listing in the NRHP. This impact would be **significant**. The physical changes within the California State Government Building District would impact one part of one contributor to the district, but overall the project, as currently known, would not impair the district's ability to convey its historical significance. The impact to this district would be **less than significant**. The changes to the Capitol Extension Group and the four individually eligible buildings would not alter any physical elements of these resources, and would not impair the ability of those resources to convey their historical significance. These resources would have **no impact**.

State Capitol Complex

The proposed project has four components that would affect the State Capitol Complex: the new underground visitor/welcome center, the demolition of the existing Annex, the construction of the new annex, and introduction of the new underground parking (which requires removal of the existing driveways and introduction of new driveways that will alter areas of Capitol Park). When identified altogether, each of the proposed project components would alter one or more of the features of the State Capitol Complex (Capitol Building, Capitol Park, and State Insectary) to varying degrees. Because it is a listed historic resource, alterations to State Capitol Complex would result in a *potentially significant* impact.

New Visitor/Welcome Center. Construction activities for the new visitor/welcome center, such as excavation, grading, and pile driving, would cause ground-borne vibration that has the potential to result in physical damage to the historic Capitol (western portion) of the State Capitol Building. Depending on the level of vibration and the proximity to the historic building, construction vibration can destabilize historic masonry foundations, cause structural cracks in historic masonry walls, or lead to damage to interior or exterior finishes or fixtures. If vibration causes any of these types of damage to the building, it would impair the historical integrity of materials, design, and/or workmanship, which would *contribute to the significant impact* on the historical resource. Once constructed, the new visitor center entrance would alter circulation patterns to the building and within the building, because the public would no longer enter the State Capitol Building through any of the building's original entrances. However, the circulation patterns and public access to the State Capitol Building have changed in many ways over the decades, and the public would still approach the new entrance to the building from the grand, primary façade of the Historic Capitol west side. Therefore, the visitor/welcome center changes to the circulation patterns would result in a *very minor contribution to the significant impact* to the historical resource. Finally, the new entrance would include an above-ground structure that leads to the below-ground visitor center, and this above-ground structure would introduce a modern element to the western edge of the Capitol Park that could alter the public view from the Capitol Mall towards the historic State Capitol Building. However, since there are many vantage points for the public to view the grand, primary façade of the State Capitol Building, and the new visitor/welcome center would alter the setting and views from a very limited number of vantage points, this change would also result in a *very minor contribution to the significant impact* to the historical resource.

Demolition of the Capitol Annex. Although it was built later than the original 1874 Historic Capitol building, the NRHP-listed historical resource recognizes the significant contribution of the Annex to the State Capitol Complex. Demolition of the Annex would cause a substantial adverse change to the State Capitol Complex, because it would permanently and completely remove part of the monumental building that anchors the complex that represents California's seat of government. This change would result in a *major contribution to the significant impact* to the historical resource. In addition to the physical demolition of the building, demolition of the existing Annex would require removal of some landscape surrounding the Annex, including the removal of commemorative trees, plantings, or other types of memorials (collectively referred to as "memorials") in Capitol Park. Construction activities also have the potential to cause inadvertent damage to memorials in Capitol Park. Removal or damage of memorials in Capitol Park would *contribute to the significant impact* to the State Capitol Complex. Finally, demolition activities have the potential to cause damage to historic architectural elements of the eastern façade of the Historic Capitol that were

preserved during the original construction of the Annex. Such damage would result in a *minor contribution to the significant impact* to the historical resource.

Construction of the New Annex. The new Annex would be built immediately adjacent to the Historic Capitol (western portion) of the State Capitol Building and styled as a "one building" design that would not exceed the height of the base of the Rotunda. The new square footage would extend toward 12th Street, which would encroach on Capitol Park, reducing the size of the park by up to approximately 40,000 square feet. The new Annex would change the exterior, alter the viewshed of the Historic Capitol building from Capitol Park and other surrounding vantage points, alter Capitol Park and its plantings, and transform interior and exterior circulation patterns. In the absence of detailed design drawings, these changes to the State Capitol Complex have the potential to impair the characteristics that qualify it for listing in the NRHP by introducing a new building that is incompatible with and detracts from the Historic Capitol, which in turn would impair its ability to convey its historical significance. The introduction of a new Annex within the State Capitol Complex would *contribute to the significant impact* to the historical resource. Construction activities will occur in very close proximity to the Historic Capitol, which has the potential to result in vibration levels that could cause damage to the historic masonry building. If such damage occurred, this would *contribute to the significant impact* to the State Capitol Complex.

Underground Parking. Construction of the new underground parking structure would occur directly adjacent to and underneath the Historic Capitol, which could lead to vibration levels that could cause physical damage to the historic masonry building. Such damage would contribute to the significant impact to the State Capitol Complex. Vehicular patterns across Capitol Park would be affected because the existing driveways that provide access to the underground parking from L Street and N Street would be removed, and new driveways would be constructed. These activities could result in the removal and/or inadvertent damage to commemorative trees, plantings, or memorials in Capitol Park, which would contribute to the significant impact to the State Capitol Complex.

The combination of the complete physical demolition of the Capitol Annex, the changes to the historical integrity of setting and association caused by the introduction of the new visitor/welcome center, the potential for vibration damage during construction activities, the introduction of a new modern building, and physical changes to Capitol Park including introduction of the visitor/welcome center, removal of or damage to memorials, and reconfiguration of pedestrian and vehicular circulation systems together would result in a substantial adverse change per State CEQA Guidelines Section 15064.5(b)(2)(A) because they would materially impair physical characteristics of the State Capitol Complex that help convey its historical significance and qualify it for listing in the NRHP. Therefore, the project would result in a **significant** impact on the State Capitol Complex historical resource.

California Extension Group

The Capitol Extension Group was designed in the Beaux Arts style, with the Historic Capitol serving as its center access, in order to complement and enhance the view of the Historic Capitol from the Capitol Mall. Implementation of the project would cause changes to the existing setting of the Capitol Extension Group. The welcome/visitor's center has the potential to impact the viewshed from the Capitol Extension Group towards the Historic Capitol. However, the addition of a welcome/visitor's center would not substantially reduce the Group's ability to convey its relationship to the Capitol. The public would continue to have multiple viewpoints of the Historic Capitol from surrounding buildings and the roundabout, as well as viewpoints beyond the Group on Capitol Mall. Furthermore, other factors such as extensive tree canopy growth and traffic and parking on 10th Street already exist and have not negatively affected the Group's ability to convey its significance as a grouping of Beaux Arts buildings which frame the Historic Capitol (NRHP Criteria C). Introduction of a visitor/welcome center would be comparable. In addition, the proposed project would not change the Group's ability to convey its significance as the first extension of State Government buildings in Sacramento (NRHP Criteria A) because the project would not affect the buildings within the Group or cause any appreciable changes to their function as buildings associated with state government work. Therefore, implementation of the project would not impair the Group's features that qualify it as a CEQA historical resource, and the Capitol Extension Group would not be impaired due to the physical change occurring as a result of the projects at the Capitol Complex. The proposed project would result in **no impact** on the Capitol Extension Group historical resource.

California State Government Building District

Similar to effects of the Capitol Extension Group, the Capitol Annex project would also result in changes to the existing setting of the CSGBD. However, no aspect of physical change caused by the proposed project would impair any of the qualities that qualify the CSGBD as a CEQA historical resource because there would be no change in the District's ability to convey its significance as a grouping of buildings designed by the State Division of Architecture and functioning to support state government operations. Physical change resulting from removal and replacement of the Annex, construction of the proposed visitor/welcome center, or construction of a new underground parking facility at the project site would not compromise the CSGBD's ability to convey its eligibility status as a strong representation of California state government expansion during the first 100 years of statehood (NRHP Criterion A). The CSGBD will continue to retain its 13 contributing elements, while losing (and replacing anew) only one half of one of the District's contributors. Likewise, in the spirit of NRHP Criterion C, the District would only lose a small percentage of its architectural representation of the Moderne style, because the three Moderne buildings along N Street would still represent this style for the district. Therefore, demolition of the Capitol Annex would not change the critical mass of any one style within the District. The Capitol Annex Project would not impair the District's ability to represent its eligibility status as a collective representation of popular architectural styles and trends and the qualities that qualify the CSGBD as a CEQA historical resource would not be impaired due to the physical change occurring as a result of project implementation. The project would result in a **less-than-significant** impact to the CSGBD.

Individually Eligible Historic Buildings

There are four buildings within the CSGBD fronting the south side of N Street that are individually listed on their own merit in the CRHR and therefore are individual CEQA historical resources: the Department of Food and Agriculture, the Department of Transportation, the Legislative Office Building, and the Blue Anchor Building. The proposed project would result in a physical change to the setting of these four resources. However, no aspect of physical change caused by the removal and replacement of the Capitol Annex, the construction of the new visitor/welcome center, or the construction of a new underground parking facility at the Capitol Complex would impair any of the features that qualify each of these buildings as individual CEQA historical resources. The proposed project would not impair the character-defining features of these buildings because no aspect of the architectural quality of the individual buildings would be physically altered by the project. Likewise, the project would not affect or compromise the historically significant setting, feeling, and association of these buildings regarding their relationship to the Capitol Complex. For example, once the project site is complete, the Department of Food and Agriculture, the Department of Transportation, and the Legislative Office Building will each continue their state agency functions, physically facing and enjoying direct access to the State Capitol. In a similar vein, the setting, feeling, and association of the Blue Anchor Building will not be compromised because its orientation to the State Capitol Complex will also remain unchanged. Further, once the project is complete, each building would continue to convey its historical significance as a representative of its architectural style and as a state office building closely associated with California's seat of government. The project would result in **no impact** to the four individual historic buildings.

Mitigation Measures

Mitigation Measure 4.12-4a: Adhere to the Historic Structure Report, Secretary of the Interior's Standards for the Treatment of Historic Properties, the California State Historical Building Code, and Relevant National Park Service Preservations Briefs

DGS will have historic preservation planners under contract as part of the Progressive Design Build Team. The preservation planners' role is to prepare a historic structure report (HSR) for the Capitol historical resource (the Historic Capitol, Annex, and Capitol Park) in accordance with NPS Preservation Brief 43 (The Preparation and Use of Historic Structure Reports) and include mitigation measures in conformance with the Secretary of the Interior's Standards (SOIS) for the Treatment of Historic Properties or the California State Historical Building Code (CHBC). The HSR shall identify historic preservation objectives and requirements for the treatments and use of the building prior to initiation of any repairs, modifications, and/or renovations to ensure that the historical significance and condition of the building are considered in the development of proposed renovation work.

DGS and the JRC will ensure that preservation treatment objectives for the Capitol historical resource seek to meet all SOIS for character-defining features designated in the HSR as having primary significance status, and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status. In instances when DGS and the JRC must address human safety issues not compatible with the SOIS, DGS and the JRC will adhere to the CHBC to the extent feasible. The CHBC is defined in Sections 18950–18961 of Division 13, Part 2.7 of Health and Safety Code. The CHBC is a mechanism that provides alternative building regulations for permitting repairs, alterations and additions to historic buildings and structures. These standards and regulations are intended to facilitate the rehabilitation and preservation of historic buildings. The CHBC proposes reasonable alternatives so that a property's fire protection, means of egress, accessibility, structural requirements, and methods of construction would not need to be modernized in a manner that compromises historic integrity. The CHBC is intended to allow continued, safe occupancy while protecting the historic fabric and character-defining features that give a property historic significance, thus promoting adherence to the SOIS. The CHBC recognizes that efforts to preserve the historic materials, features, and overall character of a historic property at times may be in conflict with the requirements of regular buildings codes. The Office of the State Fire Marshall has ultimate authority over health and safety and may require use of the standard building code in some instances.

DGS and the JRC will use the HSR to help meet SOIS and CHBC requirements as it includes treatments that draw from National Park Service Preservation Briefs relevant to the proposed renovation work. DGS and the JRC will ensure that the HSR's historic preservation objectives and treatment requirements for the Capitol historical resource are incorporated into the design and construction specifications. DGS and the JRC will consult with the project development team's preservation planner and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for guidance as needed. DGS and the JRC will ensure the HSR's historic preservation objectives and treatment requirements for the Capitol historical resource are incorporated into the project definition report, architectural design, and construction specifications. DGS and the JRC will consult with the project development team's preservation planner and with staff preservation architects within the Architectural Review and Environmental Compliance Unit of the State Office of Historic Preservation for guidance as needed.

Mitigation Measure 4.12-4b: Conduct Architectural Salvage

Because a major component of the Capitol Annex Project is the demolition of a historical resource, the Annex, DGS and the JRC will seek feasible means for salvaging the building's character-defining architectural features and incorporating them into either the design of the new project proposed at the site or the interpretive program that would be developed under Mitigation Measure 4.12-4c. DGS and the JRC will determine which elements should be salvaged. If reuse of salvaged elements in either the design of the new building or in an interpretive program proves infeasible or otherwise undesirable, as determined by DGS and the JRC, DGS and the JRC will attempt to donate the elements to an appropriate historical or arts organization. DGS and the JRC, or consultants that meet the SOIS professional qualifications standards (SOIS-qualified consultants), shall ensure that a detailed salvage plan is provided before any demolition, site, or construction permit is issued for the project.

Mitigation Measure 4.12-4c: Develop and Implement an Interpretive Program

As part of the project, DGS, the JRC, and the Capitol Museum or SOIS-qualified consultants shall facilitate the development of an interpretive program to commemorate the continuous development of the State Capitol building, including programming focused on the Capitol Annex and Capitol Park. The interpretive programs should result, at minimum, in the installation of a permanent exhibit, located on-site, in a public space, which is viewable and accessible to the public. The display shall be located in the new visitor/welcome center or the Capitol Museum. The interpretive program should highlight the continued evolution of the State Capitol building, as well as provide an inclusive history of the surrounding area, particularly the viewshed from the Capitol Mall as it relates to urban renewal and underserved communities that were displaced to create the current mall, where the visitor/welcome center entrance would be located.

Mitigation Measure 4.12d: Develop and Implement a Plan for Protection, Restoration, or Replacement of Commemorative Trees, Plantings, or Other Memorials in Capitol Park

As part of the project, DGS and the JRC shall facilitate the development of a plan that: (a) identifies which of the commemorative trees, plantings, or other types of memorials (collectively referred to as "memorial") located in Capitol Park require removal or that are located within 50 feet of construction activities, and (b) establishes specifications for protecting, restoring, and/or replacing these memorials within Capitol Park as close to their original location as feasible. In developing the plan, DGS will prioritize protection in place over removal of each memorial planting or object. For each memorial where removal is necessary, DGS or the JRC will consult with individuals or groups who are affiliated with that memorial (such as the original sponsoring organization or the individual or group that is the subject of the memorial) to identify a mutually agreeable treatment for the memorial. Treatments may include relocation of the memorial to a new location as close as possible to the original location after project construction is complete, relocation of the original memorial to a new location within Capitol Park, complete removal of the original memorial and replacement "in-kind" with the same species or materials, or complete removal of the original memorial and replacement with a mutually acceptable new memorial. DGS will complete the plan for protection, restoration, or replacement of commemorative memorials prior to initiation of construction activities, and will fully implement the plan within two years after completion of construction (except where the plan identifies that longer timeframes are required).

Mitigation Measure 4.12e: Develop and Implement a Plan for Protection, Monitoring, and Repairs for Inadvertent Damage to the Historic Capitol Building

Prior to any ground disturbing activities that are within 500 feet of the Historic Capitol Building, DGS and the JRC will oversee qualified consultants in the preparation of a Plan for the Protection, Monitoring, and Repair of Inadvertent Damage to the Historic Capitol Building. Protection measures would be developed in consultation with the Historic State Capitol Commission. The plan shall record existing conditions in order to (1) establish a baseline against which to compare the building's post-project condition, (2) to identify structural deficiencies that make the building vulnerable to project construction related damage, such as vibration, and (3) to identify stabilization or other measures required to avoid or minimize inadvertent impacts. The plan would be prepared by an interdisciplinary team, including (but not limited to) as appropriate, an architectural historian, architect, photographer, structural engineer, and acoustical engineer. The plan shall describe the protocols for documenting inadvertent damage (should it occur), and shall direct that inadvertent damage to historic properties shall be repaired in accordance with the Secretary of the Interior's (SOI) Standards for the Treatment of Historic Properties (U.S. Department of the Interior, 1995).

Significance after Mitigation

Implementation of Mitigation Measures 4.12-4a, 4.12-4b, 4.12-c, 4.12-d, and 4.12-e would help to reduce impacts and compensate for those impacts that cannot be avoided by ensuring preservation treatments, preparing a detailed salvage plan, development of an interpretive program, and ensuring protection of Capitol Park resources and the Historic Capitol. However, even after application of these mitigation measures, this impact would remain **significant and unavoidable** because the Capitol Annex, which represents approximately half of monumental building in the NRHP-listed complex, would be permanently and completely destroyed.

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4.13 BIOLOGICAL RESOURCES

This section addresses common and sensitive biological resources that could be affected by implementation of the Capitol Annex Project. The data reviewed in preparation of this analysis included:

- ▶ results of California Natural Diversity Database (CNDDDB) record search of the Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove U.S. Geological Survey 7.5-minute quadrangles (CNDDDB 2019);
- ▶ results of California Native Plant Society Rare Plant Program database search of the Taylor Monument, Rio Linda, Citrus Heights, Sacramento West, Sacramento East, Carmichael, Clarksburg, Florin, and Elk Grove U.S. Geological Survey 7.5-minute quadrangles (CNPS 2019);
- ▶ aerial photographs of the project site;
- ▶ *City of Sacramento 2035 General Plan Update and Master EIR*; and
- ▶ reconnaissance-level survey of the project site on May 2, 2019 and various subsequent informal site visits later in May, June, and August 2019.

4.13.1 Regulatory Setting

FEDERAL

Federal Endangered Species Act

Pursuant to the federal Endangered Species Act (ESA) (16 U.S. Code Section 1531 et seq.), the U.S. Fish and Wildlife Service (USFWS) regulates the taking of species listed in the ESA as threatened or endangered. In general, persons subject to the ESA (including private parties) are prohibited from “taking” endangered or threatened fish and wildlife species on private property and from “taking” endangered or threatened plants in areas under federal jurisdiction or in violation of state law. Under Section 9 of the ESA, the definition of “take” is to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” USFWS has also interpreted the definition of “harm” to include significant habitat modification that could result in take.

Section 10 of the ESA applies if a nonfederal agency is the lead agency for an action that results in take, and no other federal agencies are involved in permitting the action. Section 7 of the ESA applies if a federal discretionary action is required (e.g., a federal agency must issue a permit), in which case the involved federal agency consults with USFWS.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA), first enacted in 1918, provides for protection of international migratory birds and authorizes the Secretary of the Interior to regulate the taking of migratory birds. The MBTA provides that it will be unlawful, except as permitted by regulations, to pursue, take, or kill any migratory bird, or any part, nest, or egg of any such bird. Under the MBTA, “take” is defined as “pursue, hunt, shoot, wound, kill, trap, capture, or collect, or any attempt to carry out these activities.” Habitat destruction or alteration is not considered a take as long as there is not a direct taking of birds, nests, eggs, or parts thereof. The current list of species protected by the MBTA can be found in 50 CFR Section 10.13. The list includes nearly all birds native to the United States.

STATE

California Endangered Species Act

Pursuant to the California Endangered Species Act (CESA), a permit from the California Department of Fish and Wildlife (CDFW) is required for projects that could result in the take of a plant or animal species listed by the state as

threatened or endangered. Under CESA, “take” is defined as an activity that would directly or indirectly kill an individual of a species. The definition does not include “harm” or “harass,” unlike the federal definition. As a result, the threshold for take is higher under CESA than under the federal ESA. Authorization for take of state-listed species can be obtained through a California Fish and Game Code Section 2081 Incidental Take Permit.

California Fish and Game Code Sections 3503 and 3503.5—Protection of Bird Nests and Raptors

Section 3503 of the 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 of the California Fish and Game Code states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders *Falconiformes* and *Strigiformes*), including their nests or eggs. Typical violations include destruction of active nests as a result of tree removal or disturbance caused by project construction or other activities that cause the adults to abandon the nest, resulting in loss of eggs or young.

California Fish and Game Code Sections 3511, 4700, 5050, and 5515—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.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, “Land Use and Planning,” of this Draft EIR, in Section 4.2.1 “Regulatory Setting,” the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project’s consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The following policies of the *City of Sacramento 2035 General Plan* (City of Sacramento 2015) are relevant to the analysis of biological resources effects of the project:

- ▶ **Policy ER 2.1.1: Resource Preservation.** The City shall encourage new development to preserve on-site natural elements that contribute to the community’s native plant and wildlife species value and to its aesthetic character.
- ▶ **Policy ER 3.1.2: Manage and Enhance the City’s Tree Canopy.** The City shall continue to plant new trees, ensure new developments have sufficient right-of-way width for tree plantings, manage and care for all publicly owned trees, and work to retain healthy trees. The City shall monitor, evaluate and report, by community plan area and city wide, on the entire tree canopy in order to maintain and enhance trees throughout the City and to identify opportunities for new plantings.
- ▶ **Policy ER 3.1.3: Trees of Significance.** The City shall require the retention of City trees and 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 appropriate remediation.
- ▶ **Policy ER 3.1.4: Visibility of Commercial Corridors.** The City shall balance the tree canopy of the urban forest with the need for visibility along commercial corridors, including the selection of tree species with elevated canopies.
- ▶ **Policy 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 that uses trees to shade rooftops, parking facilities, streets, and other facilities to minimize heat island effects.

- **Policy ER 3.1.7: Shade Tree Planting Program.** The City shall continue to provide shade trees along street frontages within the city.

City of Sacramento Tree Preservation Ordinance

The City of Sacramento (City) has adopted an ordinance to protect trees as a significant resource to the community (City Code Title 12, Chapter 12.56, Ordinance 2016-0026 Section 4). It is the City's policy to retain all trees when possible regardless of their size. When circumstances will not allow for retention, permits are required to remove trees that are within City jurisdiction. Trees in the median between the curb and sidewalk are within City jurisdiction; trees on State-owned property are not within City jurisdiction and are not subject to the City's Tree Preservation Ordinance. Removal of, or construction around, trees that are protected by the tree ordinance are subject to permission and inspection by City arborists. The City's Tree Services Division reviews project plans and works with the City Public Works Department during the construction process to minimize impacts on street trees in Sacramento.

4.13.2 Environmental Setting

The project site is composed of the existing Capitol Annex building ("Capitol Annex" or "Annex"), the Historic Capitol Building, surrounding impervious surfaces (e.g., sidewalks, walkways, streets), portions of Capitol Park, and urban landscaping (see Figure 3-2). Although Capitol Park contains a constructed pond to the east of the project site, the project site does not contain any aquatic habitat (e.g., streams, wetlands) or any other native vegetation communities.

URBAN LANDSCAPING

Urban landscaping on the project site includes lawns and large landscape trees associated with Capitol Park, including coast live oak (*Quercus agrifolia*), coast redwood (*Sequoia sempervirens*), and southern magnolia (*Magnolia grandiflora*), as well as various species of alder (*Alnus* spp.), maple (*Acer* spp.), pine (*Pinus* spp.), and palms. Low-profile pruned shrubs and roses are present directly adjacent to portions of the Capitol Building. Plantings near the eastern entrance of the Capitol Annex include drought-tolerant species, such as sage (*Salvia* spp.) and various bunchgrasses.

Capitol Park contains a diverse array of native and nonnative tree species in a landscaped park setting. Although the park is not a natural woodland habitat and is surrounded entirely by urban development, the large, mature trees in the park provide greater wildlife habitat value than the surrounding developed urbanized lands. Oak trees in the park provide forage for common wildlife species, including acorn woodpecker (*Melanerpes formicivorus*) and California scrub jay (*Aphelocoma californica*), and many of the mature trees are likely used for nesting by common bird species.

COMMON WILDLIFE SPECIES

The project site supports a low diversity of wildlife because it is located in a heavily urbanized area with no native vegetation communities and is subjected to frequent human activity. Most of the wildlife species expected to occur in the project vicinity are adapted to urban environments, and several are nonnative species. Common bird species observed or expected to occur in the project vicinity include house finch (*Haemorhous mexicanus*), Brewer's blackbird (*Euphagus cyanocephalus*), house sparrow (*Passer domesticus*), American robin (*Turdus migratorius*), rock pigeon (*Columba livia*), and American crow (*Corvus brachyrhynchos*). Common mammals observed or expected to occur in the project vicinity include opossum (*Didelphis virginiana*) and nonnative eastern fox squirrel (*Sciurus niger*).

SENSITIVE BIOLOGICAL RESOURCES

Special-Status Species

Special-status species are plants and animals that are legally protected under the ESA, CESA (California Fish and Game Code, Section 2050 et seq.), or other regulations, as well as species considered sufficiently rare by the scientific community to qualify for such listing. For this EIR, special-status species are defined as:

- ▶ species listed or proposed for listing as threatened or endangered under the ESA (50 CFR Section 17.12 for listed plants, 50 CFR Section 17.11 for listed animals) and various notices in the *Federal Register* for proposed species;
- ▶ species that are candidates for possible future listing as threatened or endangered under the ESA (75 CFR Section 69222);
- ▶ species that are listed or proposed for listing by the State of California as threatened or endangered under CESA of 1984 (14 CCR Section 670.5);
- ▶ plants considered by CDFW to be “rare, threatened, or endangered in California” (California Rare Plant Ranks 1A, 1B, 2A, and 2B) (CNDDDB 2019; CNPS 2019);
- ▶ species that meet the definition of rare or endangered under State CEQA Guidelines Section 15380;
- ▶ animals fully protected in California (Fish and Game Code, Section 3511 for birds, Section 4700 for mammals, and Section 5050 for reptiles and amphibians); or
- ▶ animal species of special concern to CDFW.

The term “species of special concern” is applied by CDFW to animals that are not listed under the ESA or CESA but that are considered to be declining at a rate that could result in listing or that historically occurred in low numbers and known threats to their persistence currently exist. CDFW’s fully protected status was California’s first attempt to identify and protect animals that were rare or facing extinction. Most species listed as fully protected were eventually listed as threatened or endangered under CESA; however, some species remain listed as fully protected but do not have simultaneous listing under CESA. Fully protected species may not be taken or possessed at any time, and no take permits can be issued for these species except for scientific research purposes or for relocation to protect livestock.

Tables 4.13-1 and 4.13-2 provide lists of the special-status plant and wildlife species, respectively, that have been documented within the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site. The nine quadrangle search area was used because it encompasses a sufficient distance to accommodate for local habitat diversity. The tables describe the species’ regulatory status, habitat, and potential for occurrence on the project site. A total of 17 special-status plant species and 27 special-status animal species were determined to be present or potentially present within the nine U.S. Geological Survey 7.5-minute quadrangles surrounding the project site (CNDDDB 2019; CNPS 2019).

None of the 17 special-status plant species identified during review of existing data could occur on the project site because the site does not contain suitable natural habitat for these plants (e.g., wetlands, vernal pools, valley and foothill grassland, riparian woodland) (Table 4.13-1). Two special-status wildlife species, Swainson’s hawk (*Buteo swainsoni*) and white-tailed kite (*Elanus leucurus*), have potential to occur in the project area because large trees in Capitol Park could act as potential nesting habitat (Table 4.13-2).

Common Native Nesting Birds

The large trees adjacent to the Capitol Annex in Capitol Park provide suitable nesting habitat for non-special-status native nesting birds that are provided protection under the California Fish and Game Code, including common raptors (e.g., red-tailed hawk [*Buteo jamaicensis*], red-shouldered hawk [*Buteo lineatus*], and Cooper’s hawk [*Accipiter cooperii*]). A raptor nest was observed within a large tulip tree (*Liriodendron tulipifera*) along the 12th Street footpath east of the project site during a site visit on August 5, 2019. The nest was not currently active; however, two red-railed hawks were observed flying in the vicinity of the tree. This nest could be used again in the future, and it is likely that other trees within Capitol Park are also being used by common raptors or other native nesting birds.

Bats

Some species of bats may use buildings for day, maternity, or wintering roosts. Bats may roost in abandoned or little-used structures in wall sections, behind fascia, in spaces between vaulted interior ceiling and roofing materials, and in similar enclosed spaces that provide thermal protection. Species of bats known to roost in buildings in the downtown area include Mexican free-tailed bat (*Tadarida brasiliensis*) and big brown bat (*Eptesicus fuscus*). Neither is considered

a special-status species, although large bat roosts, and in particular maternity roosts (i.e., roosts where juvenile bats are born and mature), can be considered an important biological resource. Suitable roosting habitat for special-status bat species with potential to occur in the project vicinity (e.g., pallid bat [*Antrozous pallidus*], western red bat [*Lasiurus blossevillii*]) is not present in or adjacent to the Capitol Annex.

Table 4.13-1 Special-Status Plant Species Known to Occur in the Project Vicinity and Their Potential for Occurrence on the Project Site

Species	Listing Status ¹ Federal	Listing Status ¹ State	Listing Status ¹ CRPR	Habitat	Potential for Occurrence ²
Ferris' milk-vetch <i>Astragalus tener</i> var. <i>ferrisiae</i>	—	—	1B.1	Meadows and seeps, valley and foothill grassland. Subalkaline flats on overflow land in the Central Valley; usually seen in dry, adobe soil. 16–246 feet in elevation. Blooms April–May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Bristly sedge <i>Carex comosa</i>	—	—	2B.1	Marshes and swamps, coastal prairie, valley and foothill grassland, and lake margins. -16–5,315 feet in elevation. Blooms May–September.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Pappose tarplant <i>Centromadia paryi</i> ssp. <i>paryi</i>	—	—	1B.2	Chaparral, coastal prairie, meadows and seeps, coastal salt marsh, valley and foothill grassland. Vernally mesic, often alkaline sites. 7–1,378 feet in elevation. Blooms May–November.	Not expected to occur. The project site does not contain chaparral, wetland, or grassland habitat.
Peruvian dodder <i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	—	—	2B.2	Freshwater marshes and swamps. 49–919 feet in elevation. Blooms July–October.	Not expected to occur. The project site does not contain wetland habitat.
Dwarf downingia <i>Downingia pusilla</i>	—	—	2B.2	Valley and foothill grassland, vernal pools, and vernal lakes. 3–1,608 feet in elevation. Blooms March–May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Boggs Lake hedge-hyssop <i>Gratiola heterosepala</i>	—	SE	1B.2	Freshwater marshes and swamps, lake margins, and vernal pools. Clay soils. 33–7,792 feet in elevation. Blooms April–August.	Not expected to occur. The project site does not contain wetland habitat.
Woolly rose-mallow <i>Hibiscus lasiocarpus</i> var. <i>occidentalis</i>	—	—	1B.2	Freshwater marshes and swamps. Moist, freshwater-soaked riverbanks and low peat islands in sloughs; can also occur on riprap and levees. 0–509 feet in elevation. Blooms June–September.	Not expected to occur. The project site does not contain wetland habitat.
Northern California black walnut <i>Juglans hindsii</i>	—	—	1B.1	Riparian forest and riparian woodland. Few extant native stands remain; widely naturalized. Deep alluvial soil associated with a creek or stream. 0–2,100 feet in elevation. Blooms April–May.	Not expected to occur. The project site does not contain riparian habitat.
Ahart's dwarf rush <i>Juncus leiospermus</i> var. <i>ahartii</i>	—	—	1B.2	Restricted to the edges of vernal pools in valley and foothill grassland. 98–328 feet in elevation. Blooms March–May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Legenere <i>Legenere limosa</i>	—	—	1B.1	In beds of vernal pools. 3–2,887 feet in elevation. Blooms April–June.	Not expected to occur. The project site does not contain wetland habitat.
Heckard's pepper-grass <i>Lepidium latipes</i> var. <i>heckardii</i>	—	—	1B.2	Valley and foothill grassland and vernal pools. Alkaline soils. 3–98 feet in elevation. Blooms March–May.	Not expected to occur. The project site does not contain wetland or grassland habitat.
Mason's lilaepsis <i>Lilaeopsis masonii</i>	—	—	1B.1	Freshwater and brackish marshes and riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or riverbank erosion. 0–33 feet in elevation. Blooms April–November.	Not expected to occur. The project site does not contain wetland habitat.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Listing Status ¹ CRPR	Habitat	Potential for Occurrence ²
Slender Orcutt grass <i>Orcuttia tenuis</i>	FT	SE	1B.1	Vernal pools and wetlands. Often in gravelly substrate. 82–5,758 feet in elevation. Blooms May–September.	Not expected to occur. The project site does not contain wetland habitat.
Sacramento Orcutt grass <i>Orcuttia viscida</i>	FE	SE	1B.1	Vernal pools and wetlands. 49–279 feet in elevation. Blooms April–July.	Not expected to occur. The project site does not contain wetland habitat.
Sanford's arrowhead <i>Sagittaria sanfordii</i>	—	—	1B.2	Wetlands, marshes, and swamps. In standing or slow-moving freshwater ponds, marshes, and ditches. 0–2,133 feet in elevation. Blooms May–October.	Not expected to occur. The project site does not contain wetland habitat.
Suisun Marsh aster <i>Symphotrichum lentum</i>	—	—	1B.2	Freshwater marshes and swamps. Most often seen along sloughs with <i>Phragmites</i> , <i>Scirpus</i> , blackberry, <i>Typha</i> , and similar species. 0–98 feet in elevation. Blooms May–November.	Not expected to occur. The project site does not contain wetland habitat.
Saline clover <i>Trifolium hydrophilum</i>	—	—	1B.2	Marshes, swamps, valley and foothill grassland, and vernal pools. Mesic, alkaline sites. 0–984 feet in elevation. Blooms April–June.	Not expected to occur. The project site does not contain wetland or grassland habitat.

Notes: CRPR = California Rare Plant Rank.

¹ Legal Status Definitions

Federal:

FE Federally listed as endangered (legally protected by ESA)

FT Federally listed as threatened (legally protected by ESA)

State:

SE State listed as endangered (legally protected by CESA)

California Rare Plant Ranks:

1B Plant species considered rare or endangered in California and elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

2B Plant species considered rare or endangered in California but more common elsewhere (protected under CEQA, but not legally protected under ESA or CESA)

Threat Ranks:

0.1 Seriously threatened in California (over 80% of occurrences threatened; high degree and immediacy of threat)

0.2 Moderately threatened in California (20–80% occurrences threatened; moderate degree and immediacy of threat)

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

Sources: CNDDDB 2019; CNPS 2019

Table 4.13-2 Special-Status Wildlife Species Known to Occur in the Project Vicinity and Their Potential for Occurrence on the Project Site

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Amphibians and Reptiles				
Giant garter snake <i>Thamnophis gigas</i>	FT	ST	Marsh and swamp, riparian scrub, wetland. Prefers freshwater marsh and low-gradient streams. Has adapted to drainage canals and irrigation ditches. This is the most aquatic of the garter snakes in California.	Not expected to occur. The project site does not contain aquatic habitat and is not adjacent to any suitable aquatic habitat.
Western pond turtle <i>Actinemys marmorata</i>	—	SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches, usually with aquatic vegetation, below 6,000-foot elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.3 mile from water for egg-laying.	Not expected to occur. Although Capitol Park contains a constructed pond to the east of the project site, the project site does not contain aquatic habitat and is not adjacent to any suitable aquatic habitat for this species.
Western spadefoot <i>Spea hammondi</i>	—	SSC	This toad species occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Not expected to occur. The project site does not contain vernal pool or grassland habitat and is not adjacent to any suitable habitat for this species.
Birds				
Bank swallow <i>Riparia riparia</i>	—	ST	Colonial nester; nests primarily in riparian and other lowland habitats west of the desert. Requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Not expected to occur. The project site does not contain riparian habitat or bank or cliff habitat.
Burrowing owl <i>Athene cucularia</i>	—	SSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent on burrowing mammals, most notably, the California ground squirrel.	Not expected to occur. The project site does not contain suitable grassland nesting habitat for this species.
California black rail <i>Laterallus jamaicensis coturniculus</i>	—	ST FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays.	Not expected to occur. The project site does not contain marsh or wetland habitat.
Golden eagle <i>Aquila chrysaetos</i>	—	FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Not expected to occur. The project site does not contain suitable habitat for this species.
Least Bell's vireo <i>Vireo bellii pusillus</i>	FE	SE	Riparian forest, riparian scrub, riparian woodland. Summer resident of southern California in low riparian vegetation in vicinity of water or in dry river bottoms; below 2,000 feet. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, <i>Baccharis</i> , mesquite.	Not expected to occur. The project site does not contain riparian habitat.
Purple martin <i>Progne subis</i>	—	SSC	Inhabits woodlands, low-elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly, also in human-made structures. Nest often located in tall, isolated tree/snag.	Not expected to occur. Purple martin is known to occur within bridge habitat in downtown Sacramento; however, the project site does not contain suitable habitat for this species (CNDDDB 2019).

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Song sparrow ("Modesto" population) <i>Melospiza melodia</i>	—	SSC	Emergent freshwater marshes, riparian willow thickets, riparian forests of valley oak (<i>Quercus lobata</i>), and vegetated irrigation canals and levees.	Not expected to occur. The project site does not contain marsh, wetland, or riparian habitats.
Swainson's hawk <i>Buteo swainsoni</i>	—	ST	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas, such as grasslands, or alfalfa or grain fields supporting rodent populations.	May occur. There are two known Swainson's hawk nesting occurrences within 1 mile of the project site in downtown Sacramento (CNDDDB 2019). However, very little suitable foraging habitat is available nearby.
Tricolored blackbird <i>Agelaius tricolor</i>	—	ST SSC	Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within roughly 2 miles of the colony.	Not expected to occur. The project site does not contain marsh, wetland, or other aquatic habitat.
Western yellow-billed cuckoo <i>Coccyzus americanus occidentalis</i>	FT	SE	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	Not expected to occur. The project site does not contain riparian habitat.
White-tailed kite <i>Elanus leucurus</i>	—	FP	Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	May occur. White-tailed kite is known to nest in riparian habitat in the American River Parkway (CNDDDB 2019) and have been observed in urban areas of the City of Sacramento (eBird 2019). While habitat in the project area is marginal, large trees in Capitol Park could act as potential nesting habitat for this species.
Yellow-headed blackbird <i>Xanthocephalus xanthocephalus</i>	—	SSC	Nests in freshwater emergent wetlands with dense vegetation and deep water. Often along borders of lakes or ponds.	Not expected to occur. The project site does not contain marsh, wetland, or other aquatic habitat.
Fish				
Chinook salmon - Central Valley spring-run ESU <i>Oncorhynchus tshawytscha</i> pop. 6	FT	ST	Sacramento-San Joaquin Delta flowing waters.	Not expected to occur. The project site does not contain aquatic habitat.
Chinook salmon - Sacramento River winter-run ESU <i>Oncorhynchus tshawytscha</i> pop. 7	FE	SE	Sacramento-San Joaquin Delta flowing waters. Sacramento River below Keswick Dam. Spawns in the Sacramento River, but not in tributary streams.	Not expected to occur. The project site does not contain aquatic habitat.
Longfin smelt <i>Spirinchus thaleichthys</i>	FC	SSC	Found in open waters of estuaries, mostly in middle or bottom of water column.	Not expected to occur. The project site does not contain aquatic habitat.
Sacramento perch <i>Archoplites interruptus</i>	—	SSC	Historically found in the sloughs, slow-moving rivers, and lakes of the Central Valley.	Not expected to occur. The project site does not contain aquatic habitat.

Species	Listing Status ¹ Federal	Listing Status ¹ State	Habitat	Potential for Occurrence ²
Sacramento splittail <i>Pogonichthys macrolepidotus</i>	—	SSC	Endemic to the lakes and rivers of the Central Valley, but now confined to the Sacramento–San Joaquin Delta, Suisun Bay, and associated marshes. Slow-moving river sections, dead-end sloughs.	Not expected to occur. The project site does not contain aquatic habitat.
Steelhead - Central Valley DPS <i>Oncorhynchus mykiss irideus</i> pop. 11	FT	—	Populations in the Sacramento and San Joaquin Rivers and their tributaries.	Not expected to occur. The project site does not contain aquatic habitat.
Invertebrates				
Valley elderberry longhorn beetle <i>Desmocerus californicus dimorphus</i>	FT	—	Riparian scrub. Occurs only in the Central Valley of California, in association with blue elderberry (<i>Sambucus nigra</i> ssp. <i>caerulea</i>). Prefers to lay eggs in elderberry stems 2–8 inches in diameter; some preference shown for “stressed” elderberries.	Not expected to occur. The project site does not contain elderberry shrub habitat for this species.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	FT	—	Endemic to the grasslands of the Central Valley, central and southern Coast Ranges, in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	Not expected to occur. The project site does not contain vernal pool habitat.
Vernal pool tadpole shrimp <i>Lepidurus packardii</i>	FE	—	Inhabits vernal pools and swales in the Sacramento Valley containing clear to highly turbid water. Pools commonly found in grass-bottomed swales of unplowed grasslands. Some pools are mud-bottomed and highly turbid.	Not expected to occur. The project site does not contain vernal pool habitat.
Mammals				
American badger <i>Taxidea taxus</i>	—	SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food; friable soils; and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Not expected to occur. The project site does not contain suitable grassland or other natural habitat for this species.
Pallid bat <i>Antrozous pallidus</i>	—	SSC	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not expected to occur. The project site does not contain suitable roosting habitat for this species.
Western red bat <i>Lasiurus blossevillii</i>	—	SSC	Cismontane woodland, lower montane coniferous forest, riparian forest, and riparian woodland. Roosts primarily in trees, 2–40 feet above ground, from sea level up through mixed conifer forests. Prefers habitat edges and mosaics with trees that are protected from above and open below with open areas for foraging.	Not expected to occur. The project site does not contain suitable roosting habitat for this species.

Notes: CNDDDB = California Natural Diversity Database; DPS = distinct population segment; ESU = evolutionarily significant unit.

¹ Legal Status Definitions

Federal:

FE Federally listed as endangered (legally protected)

FT Federally listed as threatened (legally protected)

State:

FP State fully protected (legally protected)

SSC States species of special concern (no formal protection other than CEQA consideration)

SE State listed as endangered (legally protected)

ST State listed as threatened (legally protected)

² Potential for Occurrence Definitions

Not expected to occur: Species is unlikely to be present because of poor habitat quality, lack of suitable habitat features, or restricted current distribution of the species.

May occur: Suitable habitat is available; however, there are little to no other indicators that the species might be present.

Source: CNDDDB 2019

Sensitive Natural Communities

Sensitive natural communities include those that are of special concern to resource agencies or are afforded specific consideration through CEQA or other federal or State laws. Sensitive natural communities may be of special concern to regulatory 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. Many of these communities are tracked in CDFW's CNDDDB. There are no sensitive natural communities within or adjacent to the project site.

4.13.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

This impact evaluation is based on data collected during a reconnaissance-level field survey conducted on May, June, and August 2019, review of aerial photographs, and review of existing databases that address biological resources in the project vicinity as described above.

THRESHOLDS OF SIGNIFICANCE

An impact on biological resources would be significant if implementation of the Capitol Annex Project would:

- ▶ have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- ▶ have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- ▶ have a substantial adverse effect on state-protected or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means;
- ▶ interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- ▶ conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- ▶ conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or state habitat conservation plan.

ISSUES NOT DISCUSSED FURTHER

As described above, the project site is occupied by the Capitol Annex, pavement, sidewalks, walkways, and landscaping; it does not include any potential habitat for special-status plant species. Therefore, no impact on any plant species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or

regulations, or by CDFW or USFWS would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site, in a developed urban environment in downtown Sacramento, does not contain riparian habitat or other sensitive natural communities. There are no riparian habitats or other sensitive habitats on or adjacent to the project site, so none would be affected directly or indirectly by project construction or operation. Therefore, no impact on riparian habitat or other sensitive natural communities would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site does not contain federally protected wetlands or other features regulated under Section 404 of the Clean Water Act. The site also does not support any wetlands or waters regulated by other agencies. Therefore, no impact on wetlands would occur during construction or operation of the proposed project, and this issue is not discussed further.

The project site does not contain any aquatic habitats, including any waterways supporting fish populations. In addition, runoff from the project site drains into the City's combined stormwater/sewer system and is treated before discharge. Therefore, the project would not have a direct or indirect effect on fisheries habitat or cause fish species to drop below self-sustaining levels. Impacts related to fishery resources are not discussed further.

The project site and surrounding downtown Sacramento area are characterized by urban development with limited vegetation, which consists primarily of ornamental trees and shrubs. There are no areas of native habitats or vegetation in the project vicinity. The project site neither connects nor separates any significant wildlife habitat areas. Therefore, redevelopment of the site would not substantially reduce the habitat of a wildlife species; cause a wildlife species to drop below self-sustaining levels; threaten to eliminate a plant or animal community; interfere substantially with the movement of any resident or migratory wildlife species, or with established resident or migratory wildlife corridors; or impede the use of wildlife nursery sites (other than potentially bat maternity roosts, which is addressed in the discussion of Impact 4.13-2 below). Impacts related to these significance criteria are not discussed further.

No adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan applies to the project site. Therefore, this impact is not discussed further.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.13-1: Potential Disturbance to Swainson's Hawk, White-Tailed Kite, Other Nesting Raptors, and Other Native Nesting Birds

Project implementation involves removal of several trees from the project footprint. Tree removal could result in direct loss of nests and mortality of adults, chicks, or eggs if they are present when tree removal occurs. Additionally, loud noises and visual disturbance from the presence of construction equipment, trucks, and construction crews associated with project implementation, including demolition of the existing Capitol Annex and construction of the new Capitol Annex and associated features (e.g., visitor/welcome center, parking garage), could result in indirect disturbance to nesting Swainson's hawks, white-tailed kites, other nesting raptors, and other native nesting birds if they are present in trees adjacent to the project site. Indirect disturbance to nesting birds could result in nest abandonment. This impact would be **potentially significant**.

Swainson's hawk is listed as threatened under CESA and white-tailed kite is fully protected under California Fish and Game Code. There are no known active or historic nests of either of these species within the trees in the project footprint. The nearest known occurrences of Swainson's hawk are approximately 0.4 mile southeast and 0.8 mile northeast of the project site (CNDDDB 2019). These two occurrences are located in downtown Sacramento, in areas with characteristics similar to those at the project site (e.g., an urban setting with development, roads, and noise associated with urban activity). Although downtown Sacramento does not have suitable foraging habitat for Swainson's hawk, it is presumed that these nesting birds forage in nearby agricultural areas of Sacramento and Yolo Counties. The nearest known occurrences of white-tailed kite are approximately 1.6 miles northeast and 2.6 miles

northeast of the project site (CNDDDB 2019). Both of these occurrences are associated with the American River Parkway.

The project site contains large trees, including those associated with Capitol Park and street trees (e.g., palms), some of which may provide suitable nesting habitat for these species. Although active raptor nests were not observed during the reconnaissance surveys, as described above, a raptor nest was observed within a large tulip tree east of the project site. The nest was not active at the time; however, two red-tailed hawks were observed flying in the vicinity of the tree. There is potential for Swainson's hawks, white-tailed kite, or other raptors (e.g., red-tailed hawk, Cooper's hawk) to nest in the trees in Capitol Park. Additionally, common native nesting birds, which are protected under the California Fish and Game Code, could nest in these trees. Project implementation may involve removal of street trees and trees in Capitol Park. Therefore, direct impacts on nesting Swainson's hawks, white-tailed kites, other raptors, or other native birds is possible.

Project implementation would involve demolition of the existing Capitol Annex and construction of a new Annex and several associated features, including a visitor/welcome center on the west side of the Capitol and a parking garage on the south side of the Capitol. Demolition and construction activities would involve the use of equipment such as bulldozers, excavators, bobcats, trucks, cranes, and compressors. Although these activities may not be substantially different from the existing urban conditions in the vicinity of the project site (e.g., vehicle traffic, pedestrian traffic, buses, trains, nearby construction activities), the noise and activity associated with demolition and construction could result in indirect disturbance to a nearby nesting Swainson's hawk, white-tailed kite, other raptor, or other native bird, if they occur in the project vicinity. Indirect disturbance could potentially result in nest abandonment. This impact would be **potentially significant**.

Mitigation Measure 4.13-1: Protect Nesting Swainson's Hawks, White-Tailed Kites, Other Raptors, and Other Native Birds

DGS and JRC shall require that the following measures are implemented before and during construction:

- ▶ To minimize the potential for loss of nesting raptors and other native nesting birds, tree removal and other construction activities, to the maximum extent feasible, will be conducted during the nonbreeding season (September 1 through January 31). If tree removal and other construction activities are completed during the nonbreeding season, no further mitigation will be required.
- ▶ If tree removal and other construction activities must occur during the breeding season (February 1 through August 31), a qualified biologist will conduct a survey of the trees in the project footprint to assess whether any trees contain nesting Swainson's hawk, white-tailed kite, other nesting raptors, or other nesting native bird species. If construction activities that could result in disturbance to nesting raptors lapse for greater than 14 days during the breeding season, then an additional survey will be required prior to restart of construction.
- ▶ If no active Swainson's hawk, other raptor, or other native bird nests are present, tree removal and other construction activities may commence, and no further mitigation is required.
- ▶ If an active Swainson's hawk, white-tailed kite, other raptor, or other native bird nest is present in a tree planned for removal, the nest tree will not be removed until the young have fledged, as confirmed by the qualified biologist.
- ▶ If an active raptor nest is present in the project footprint, in a tree that is not planned for removal, the qualified biologist, in coordination with CDFW, will determine whether excavation, demolition, or other construction activities are likely to result in disturbance to the nest. A no-disturbance buffer may be established around the nest. The size of the no-disturbance buffer will be determined by the qualified biologist in coordination with CDFW. Buffer size may be adjusted if the qualified biologist, in coordination with CDFW, determines that reducing the size of the buffer would not result in adverse effects on the nesting raptors. The no-disturbance buffer will be implemented until the young have fledged, as confirmed by the qualified biologist.
- ▶ DGS will coordinate with CDFW regarding the best approach for compliance with Section 3503 of the Fish and Game Code. For example, common species in urban environments, such as house finch, may tolerate some increase in noise or other construction activities close to the nest, and presence of these nests may have no effect on nearby construction activity.

Significance after Mitigation

Implementation of Mitigation Measure 4.13-1 would reduce impacts on Swainson's hawk, white-tailed kites, other nesting raptors, and other native nesting birds to a **less-than-significant** level because active nests would be identified during preconstruction surveys, active nest trees would not be removed until the young have fledged, and no-disturbance buffers would be implemented to avoid indirect disturbance to active nests.

Impact 4.13-2: Disturbance to Common Bat Roosts and Maternal Colonies

Project implementation could result in inadvertent disturbance to maternal colonies of common bat species or inadvertent exclusion of these bats if they are present in the exterior or interior of the Capitol Annex. This impact would be **potentially significant**.

Occupied roosts and maternity roosts for common bat species are present in downtown Sacramento, including bridges, freeway overpasses, parking structures, trees, vacant buildings, and cavities (e.g., in human-made structures). The Capitol Annex has been continuously occupied and will continue to be occupied until initiation of remediation and demolition; thus, it is not likely that large maternity roosts have been established in the building unnoticed. However, common cavity-nesting bat species could roost in exterior features, including cracks, crevices, and small spaces. If an occupied maternity roost is removed this would impede the use of native wildlife nursery sites

Project implementation would include demolition of the existing Capitol Annex, which could result in disturbance or removal of a common bat maternal colony if one is present in the building. This impact would be **potentially significant**.

Mitigation Measure 4.13-2: Conduct Preconstruction Surveys for Bats and Exclude Bats from Roosting Site

DGS and JRC shall require that the following measures are implemented before and during construction:

- ▶ Before demolition activities begin, a qualified biologist will conduct a survey of the exterior and interior of the Capitol Annex for roosting bats. If evidence of bat use is observed, the species and 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 and no further mitigation will be required.
- ▶ If bat roosts or a confirmed maternity colony are found, bats will be excluded from the roosting site before demolition begins. Exclusion efforts may be restricted during periods of sensitive activity (e.g., during hibernation or while females in maternity colonies are nursing young). After it is confirmed that bats are not present in the original roost site, demolition activities may commence.

Significance after Mitigation

Implementation of Mitigation Measure 4.13-2 would reduce impacts on common bat roosts and maternity colonies to a **less-than-significant** level because roosts and maternity colonies would be identified, and bats would be excluded during demolition activities.

Impact 4.13-3: Conflict with Any Local Policies or Ordinance Protecting Biological Resources

Implementation of the project could result in the direct loss or temporary disturbance of trees protected under the City of Sacramento Tree Preservation Ordinance. This impact would be **potentially significant**.

Project implementation may involve removal of a limited number of trees that may qualify as "City street trees" (see the discussion of the City of Sacramento Tree Preservation Ordinance in Section 4.13.1, "Regulatory Setting"). It is not anticipated at this time that any of these trees along the perimeter of the project site would be removed; however, it is possible that as final site plans, underground utility work requirements, and construction access and operations requirements are developed, one or more City street trees may need to be pruned, roots may need to be cut during excavations, or a tree may need to be completely removed. Loss or disturbance of City street trees, would conflict with tree protection requirements in the City of Sacramento Tree Preservation Ordinance. This impact would be **potentially significant**.

Trees on State-owned land are generally not subject to the City of Sacramento Tree Preservation Ordinance. Removal and disturbance of some trees on State owned land in Capitol Park will be unavoidable during project implementation. Removal of trees will be minimized to the extent practical. As described in Chapter 3, "Project Description," prior to project implementation, a plan will be completed addressing tree preservation and replacement for all trees on state-owned land that could be removed or disturbed during demolition and construction activities. The plan will include direction from arborists selected by the state for the preservation and care of trees to be retained within the project site following, at a minimum, tree protection standards established by the California Department of Parks and Recreation. The plan will also include various measures for tree replacement, including but not limited to planting replacement trees propagated from seeds, cuttings or other propagules from the removed tree and replanting trees of the same species from purchased nursery stock. Because trees on State-owned land would not be subject to the City of Sacramento Tree Preservation Ordinance, the process outlined here does not have a direct nexus to the impact discussion above assessing potential conflicts with local policies or ordinances protecting biological resources. However, this information is provided to reflect the State's efforts to retain, protect, and replace trees in Capitol Park as part of the project.

Mitigation Measure 4.13-3: Remove and Replace City Street Trees Consistent with the City of Sacramento Tree Preservation Ordinance

Before construction begins, DGS will complete a survey of City street trees at the project site and prepare and submit a detailed tree removal, protection, replanting, and replacement plan to the City arborist. The tree removal plan will be developed by a certified arborist. Separate plans may be prepared for different phases of project construction; however, each construction phase cannot be initiated until a completed plan addressing that construction phase is provided to the City. The plan shall include the following elements:

- ▶ The number, location, species, health, and sizes of all City street trees to be removed, relocated, or replaced will be identified. This information will also be provided on a map/design drawing to be included in the project plans.
- ▶ Planting techniques, the necessary maintenance regime, success criteria, and a monitoring program for all City street trees planted on or, disturbed but retained on the project site, will be described.

DGS and JRC will ensure implementation of the tree removal, protection, replanting, and replacement plan during project construction and operation.

Significance after Mitigation

Implementation of Mitigation Measure 4.13-3 would reduce potentially significant impacts associated with City street tree removal to a **less-than-significant** level by providing replacement trees and complying with the City's Tree Preservation Ordinance.

4.14 PUBLIC SERVICES AND RECREATION

This section provides an overview of existing public services within the city of Sacramento and evaluates the potential for implementation of the Capitol Annex Project to affect availability, service level, and/or capacity of public services, including fire protection services, police protection services, and parks and recreation, and, if such an effect is determined to occur, whether new or expanded facilities would be required that could result in a potentially significant impact on the environment. The project would not result in a net increase in population within the local school districts serving the project area, nor would the project generate demographic changes such that the proportion of school-aged children within the applicable school catchment areas would be affected. Therefore, the project would have no impact on schools, and this topic is not evaluated further in this EIR. Other publicly provided utility services, such as water supply, water and wastewater conveyance and treatment, stormwater management, electricity and natural gas services, and solid waste disposal, are addressed in Section 4.4, "Utilities and Service Systems."

4.14.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws are applicable to the provision of public services and recreation for the Capitol Annex Project.

STATE

California Fire Code

The 2016 California Fire Code, which incorporates by adoption the 2015 International Fire Code, contains regulations related to construction, maintenance, and use of buildings. Topics addressed in the California Fire 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 California Fire Code 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 and smoke alarms; high-rise building standards; and fire-suppression training.

California Building Standards Code (Title 24)

Energy consumption of new buildings in California is regulated by State Building Energy Efficiency Standards contained in CCR, Title 24, Part 2, Chapter 2-53. Title 24 applies to all new construction of both residential and nonresidential buildings, and it regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The 2016 Building Energy Efficiency Standards have improved efficiency requirements from previous codes, and the updated standards are expected to result in a statewide energy consumption reduction.

Effective January 1, 2011, CALGreen became California's first green building standards code. It is formally known as the California Green Building Standards Code, Title 24, Part 11, of the CCR. CALGreen establishes mandatory minimum green building standards and requirements for construction and demolition (C&D) material diversion. Under Section 5.408 of CALGreen, projects involving C&D activities are required to recycle and/or salvage for reuse a minimum of 65 percent of their nonhazardous C&D material. Applicable projects, such as the Capitol Annex Project, are required to prepare and implement a construction waste management plan.

Capitol Area Plan

The Capitol Area Plan (CAP), originally adopted in 1977 and updated in 1997, is the statutory master plan for development on State-owned land surrounding the State Capitol building (DGS 1997), in accordance with Government Code Section 8160 et seq. The CAP envisions State offices, housing, neighborhood commercial, parking, and multimodal streets creating a vibrant urban district in the heart of Sacramento. DGS developed the CAP and is responsible for its administration. Chapter 6 of the CAP discusses opportunities and improvements for open space and public amenities; specifically, it aims to achieve a network of attractive and convenient open spaces and access routes to improve the environment for workers, residents, and visitors. The CAP seeks to protect the historic value and role of Capitol Park as an arboretum and a public gathering space.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The following goals and policies in the General Plan Public Health and Safety Element are relevant to the analysis of effects on law enforcement, fire, and emergency services. The goals and policies listed below from the Education, Recreation, and Culture Element are relevant to the analysis of effects on parks and recreation.

Public Health and Safety Element

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 1.1.2: Response Time Standards.** The City shall strive to achieve and maintain optimal 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 police facilities and services will keep pace with all development and growth in the city.
- ▶ **Policy PHS 1.1.12: Cooperative Delivery of Services.** The City shall work with local, State, and Federal criminal justice agencies to promote regional cooperation in the delivery of services.

GOAL PHS 2.1: Fire Protection and Emergency Medical Services. Provide coordinated fire protection and emergency medical services that address the needs of Sacramento residents and businesses and maintains a safe and healthy community.

- ▶ **Policy PHS 2.1.2: Response Time Standards.** The City shall strive to maintain emergency response times that provide optimal 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 fire 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.

GOAL Policy 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.** 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 in new commercial and residential development, and shall encourage the installation of sprinklers in existing structures when it is reasonable and not cost prohibitive.
- ▶ **Policy PHS 2.2.4: Water Supply 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.
- ▶ **Policy PHS 2.2.5: High-Rise Development.** The City shall require that high rise structures include sprinkler systems and on-site fire suppression equipment and materials, and be served by fire stations containing truck companies with specialized equipment for high-rise fire and/or emergency incidents.

Education, Recreation, and Culture Element

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 Radius.** The City shall strive to provide accessible public park or recreational open space within one-half mile of all residences.
- ▶ **Policy ERC 2.2.4: Park Acreage Service Level.** The City shall strive to develop and maintain 5 acres of neighborhood and community parks and recreational facilities per 1,000 population.

Sacramento Parks and Recreation Master Plan

The Sacramento Parks and Recreation Master Plan is a policy document that addresses recreation and human services, children's and teen programs, community centers, park planning and development, partnerships, maintenance and tree planting, park operations and maintenance, marketing and special events, sustainability and department-wide administrative services. Some of the Parks and Recreation Master Plan policies that are relevant to the project are listed here:

- ▶ **Policy 3.5:** Encourage integration of park and recreational amenities into the design of commercial, infill, employment, redevelopment, and transit-oriented development.
- ▶ **Policy 12.1:** Achieve Park Acreage Service Level Goals to provide public recreational opportunities within a reasonable distance of all residences and workplaces as follows:
 - a) 5.0 acres per 1,000 population consisting of two park categories:
 - (1) Neighborhood Serving: 2.5 acres per 1,000 population with a service area guideline of ½ mile.

- (2) Community Serving: 2.5 acres per 1,000 population with a service area guideline of three miles, portions of which may also serve neighborhood needs.
 - b) Citywide/Regionally Serving: 8.0 acres per 1,000 population, portions of which may also serve either neighborhood or community needs.
 - c) Linear Parks/Parkways and Trails/Bikeways: 0.5 linear miles/1,000 population of trails/bikeways implemented per adopted City Bikeway and Pedestrian Master Plans.
- ▶ **Policy 12.9:** Take an active role in ensuring sufficient parks, open space, parkways, and trails by participation in the land use planning and development processes of the City and other agencies.
 - ▶ **Policy 12.10:** Through the development conditioning process, encourage provision of private open space and recreation facilities in high density residential projects, mixed use projects, and employment centers in the vicinity of transit corridors to meet a portion of the open space and recreational needs of residents, employees, and visitors that will be generated by that development.

4.14.2 Environmental Setting

FIRE PROTECTION

Sacramento Fire Department

The Sacramento Fire Department (SFD) provides fire prevention and protection services to the entire city, including Capitol Park and the State Capitol building, and some small areas outside the city boundaries within Sacramento County. Contracted areas within SFD's jurisdiction include the Fruitridge, Natomas, and Pacific Fire Protection Districts (SFD n.d.:5).

Under the direction of the fire chief, SFD is divided into three divisions: Office of Emergency Operations, Office of Resource Management, and Office of Community Risk Reduction. In addition to fire prevention and protection services, SFD manages emergency medical services, a hazardous materials program, a domestic preparedness program, an urban search and rescue task force, and a swift water rescue program. SFD also maintains automatic aid agreements with all its neighboring agencies and participates in the State mutual aid response system in coordination with the California Office of Emergency Services.

Twenty-four fire stations and engine companies are strategically located throughout the city to provide assistance to area residents. Each fire station operates within a specific district that encompasses the immediate geographical area around the station. Seven stations are located in the downtown and eastern sections of the city (SFD n.d.:16). SFD also operates nine truck companies, one rescue company, and 15 medic units (SFD n.d.:11). During 2017, SFD responded to a record 91,205 service calls (SFD n.d.:8).

The fire stations closest to the project site are:

- ▶ Station 2 at 1229 I Street,
- ▶ Station 1 at 624 Q Street,
- ▶ Station 5 at 731 Broadway, and
- ▶ Station 14 at 3145 Granada Way.

Suppression companies (engines and trucks) are staffed with four personnel consisting of a company officer (captain), engineer, and two firefighters. Ambulances are staffed with two firefighter paramedics or one firefighter paramedic and one firefighter emergency medical technician (SFD n.d.:11).

Station 2 would provide first responder service to the project site. This station is equipped with one engine, one truck, one medic transport, and one boat. In 2017, Station 2 responded to approximately 5,686 incidents (SFD n.d.:15).

The recommended standard for the first-due fire unit is to arrive within 7 minutes after fire dispatch receives the 911 call (for 90 percent of the calls) and to arrive within 8 minutes of travel time or within 11 minutes of total response time after fire dispatch receives the call for an ambulance. Actual response times are based on the closest available station and can vary (Tunson, pers. comm., 2019).

Fire Flow Requirements

An important requirement for fire suppression is adequate fire flow. Fire flow is the amount of water, expressed in gallons per minute (gpm), available to control a given fire and the length of time this flow is available. The total fire flow needed to extinguish a structural fire is based on a variety of factors, including building design, internal square footage, construction materials, dominant use, height, number of floors, and distance to adjacent buildings. Minimum requirements for available fire flow at a given building are dependent on standards set in the California Fire Code.

LAW ENFORCEMENT

California Highway Patrol

Police protection to State-owned property is provided by the California Highway Patrol (CHP) Capitol Protection Section (CPS). CPS is located at 1801 Ninth Street in Sacramento. This specific CHP office is responsible for providing police and safety services to the occupants of and visitors to the State Capitol building, Capitol Park, and hundreds of State-owned facilities in downtown Sacramento. CPS personnel are on duty all day and every day of the year (CHP 2017).

City of Sacramento Police Department

Police protection services are provided by the Sacramento Police Department (SPD) for areas within the city. Patrol units for downtown Sacramento originate at the Richards Station (300 Richards Boulevard) (Leong, pers. comm., 2019). Police headquarters are located at the Public Safety Center, Chief John P. Kearns Administration Facility (5770 Freepoint Boulevard). The Central Command, providing services to the downtown area, includes mounted, bike, marine, and foot beat units (SPD n.d.:14). The department uses a variety of data that include geographic information system-based data, call and crime frequency information, and available personnel on an annual basis to meet the changing law enforcement demands of the city.

SPD maintains an unofficial goal of 2.0 to 2.5 sworn police officers per 1,000 residents. In 2016, SPD had 697 sworn employees and 269 civilian employees. The 2016/2017 budget provided funding for 751 sworn and 282 civilian full-time equivalent positions (SPD n.d.:10). Therefore, at the end of 2016, SPD had a shortfall of 54 officers below their budgeted staffing. In 2016, SPD responded to Priority 2 calls (those classified as emergency situations requiring immediate police response) in approximately 10 minutes (SPD n.d.:24). SPD does not have an adopted response time standard.

RECREATION

Recreational facilities in the vicinity of the project site include numerous parks serving the Capitol Area, including the 37-acre Capitol Park, which is also the site of the Capitol Annex Project; the approximately 3-acre Roosevelt Park; the approximately 3-acre Fremont Park; and other parks more distant from the project site. Each of these parks is within less than 0.4 mile of the project site.

Capitol Park

Capitol Park, which encompasses 37 acres and 10 square blocks, is bounded on the north by L Street, on the south by N Street, on the west by 10th Street, and on the east by 15th Street. It is maintained by DGS. The dominant features are the Historic Capitol and Capitol Annex building (Capitol Annex, Annex), but the park also includes numerous memorials, rose gardens, shaded paved paths, and a wide variety of trees and shrubs. There are approximately 1,140 trees in the park (not including shrubs), representing more than 200 types of trees. The park includes approximately 155 memorials to significant events and people involving California and other points of interest. Table 4.14-1 lists memorials that are located within the project site.

Table 4.14-1 Memorials, Points of Interest, and Plaques in Capitol Park within the Project Site

California Registered Historical Landmark No. 872	Apollo 14 Moon Tree
Heritage '76 Plaque	Gilbert Murray Marker
September 11, 2001 Memorial	Native American Commemorative Seal
Assemblyman Frank P. Belotti Memorial	Arthur A. Ohnimus Marker
California Civil War Veterans Memorial	John Alec Pursell Marker (removed)
Capitol Christmas Tree	Franklin D. Roosevelt Anniversary Memorial
Capitol Cornerstone	Governor Arnold Schwarzenegger Oak Tree
Capitol Menorah	Security Barriers
Civilian Conservation Corps Anniversary Marker	Senator Capitol Kitty Memorial
Clay, Nicole, and Ben Deodar Cedar Tree	Senator Byron D. Sher Marker
Crew, Angela, and Charmette Bonpua Marker	Sisters of Mercy Memorial
Marie Kiene Dunphy Marker	Spanish-Mexican Commemorative Seal
Martha C. Gorman Marker	Tierra Del Oro Girl Scout Council 80th Anniversary Memorial
The Great Seal of the State of California	United States Coast and Geodetic Survey Marker
Denny Greene Marker (removed)	Water Wise Gardening Demonstration Project
Reverend Wilbur A. Korfhage Marker	Arlyn E. Webster
Senator J.E. McAteer Marker	Assemblyman Edwin L. Z'berg Marker
Mayron "Mac" (The "Rose Man") McKeown Marker	

Source: California State Parks 2016

The Capitol Park is an area of 10 undivided city blocks of park space, which attracts many tourists and visitors. Each year, numerous events, demonstrations, and activities take place at Capitol Park and the Capitol building, and the Capitol steps are the central site for many of them. These events require that organizers obtain a permit from CHP. Noteworthy events at Capitol Park include the California International Marathon (CIM), which covers a route starting in Folsom and ending in Sacramento with its finish line on Capitol Mall at 9th Street in front of the Historic Capitol. The CIM route has been unchanged for 37 years and the event is a Boston Marathon and U.S. Olympic Trials qualifier. Other events include the Kaiser Permanente Women's Fitness Festival 5K/10K, the start and finish of which are located at the State Capitol. Rallies, demonstrations, and protests are also regularly staged along Capitol Mall and normally culminate at the Capitol building. In 2018, the total number of permits issued by CHP for events located between L, N, 10th, and 12th Streets was approximately 750; permits issued for the rest of Capitol Park was approximately 350. Therefore, there were approximately 1,100 permitted events in Capitol Park in 2018 (Moos, pers. comm., 2019).

City of Sacramento Parks and Recreation Department

The City of Sacramento Parks and Recreation Department provides recreation and leisure opportunities to the city with its park facilities and recreation programming. As of 2014, the City operated and maintained approximately 3,178 acres of developed parkland in 222 parks (City of Sacramento 2015:5-31). Within the Central City, 30 parks cover a total of 297 acres. These types of park facilities include neighborhood parks, community parks, city regional parks, city parkways, open space, and school parks.

The city owns and maintains Roosevelt Park and Fremont Park. Roosevelt Park is located at 1615 Ninth Street, between Ninth and 10th Streets and P and Q Streets. This approximately 3-acre park includes picnic areas, a lighted baseball field, and a full-size soccer field. Fremont Park is located at 1515 Q Street, between 15th and 16th Streets and P and Q Streets. This approximately 3-acre park includes a playground, central seating area, individual picnic tables, and walkways.

The city's desired service area goal, identified in the policies listed above, is to provide public recreational opportunities within a reasonable walking or driving distance of all residences and concentrations of worker

populations. The Parks and Recreation Master Plan provides a mechanism for acquiring parkland dedications and providing long-range planning for accommodating the future recreational needs of the city. As of 2014, the following service levels of parks were provided throughout the city:

- ▶ Neighborhood-serving: 1.6 acres per 1,000 residents of city-owned or -controlled and 2.5 acres per 1,000 residents with school sites included in the park acreage total
- ▶ Community-serving: 1.8 acres per 1,000 residents of city-owned or -controlled and 2.4 acres per 1,000 residents with school sites included in the park acreage total
- ▶ Citywide/regionally serving: 3.3 acres per 1,000 residents of city-owned or -controlled and 3.3 acres per 1,000 residents with school sites included in the park acreage total

The total service levels for neighborhood and community parks and recreational facilities are not meeting the 5 acres per 1,000 population target identified in 2035 General Plan Policy 2.2.4.

4.14.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

Evaluation of potential public service impacts was based on a review of documents pertaining to the proposed project, including the City of Sacramento General Plan and the Capitol Area Plan; consultation with appropriate public service providers, such as SFD, CHP, SPD, and SCUSD; and field review of the project area and surroundings. Impacts on public services and recreation that would result from implementing the Capitol Annex Project were identified by comparing existing service capacity and facilities against future demand associated with project implementation.

THRESHOLDS OF SIGNIFICANCE

A public services and recreation impact would be significant if implementation of the Capital Annex Project would:

- ▶ result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - fire,
 - law enforcement,
 - schools,
 - parks, and
 - other public facilities;
- ▶ increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- ▶ include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.14-1: Increased Demand for Fire Protection Services, Facilities, and Equipment

The existing Capitol Annex is aging and requires replacement for several reasons, among which is the need to upgrade and improve fire safety features and infrastructure within the building. Through demolition and replacement, the new Annex would meet current fire protection and safety requirements identified in applicable codes and regulations, as would the visitor/welcome center and underground parking facility. DGS would invite participation by SFD in the project design review process and would consider SFD-recommend fire prevention measures. Because the project would not result in an increase in the number of State employees nor other individuals within the project area (e.g., visitors), it would not increase the need for SFD facilities or services. This impact would be **less than significant**.

The Capitol Annex Project includes demolition of the existing, approximately 325,000-square-foot Capitol Annex building and replacement with a larger building approximately 556,000 gross square feet in size. The project would also include development of a new underground visitor/welcome center and underground parking facility in two areas of Capitol Park adjacent to the Historic Capitol and Annex.

Fire protection features for the project would comply with the California code for high-rise buildings and the City of Sacramento High-Rise Ordinance (as determined to be applicable by the State Fire Marshall). Adherence to these provisions would include the following features, as appropriate: fire pumps connected to a fire water storage tank, an automatic sprinkler system, a breathing air system, an emergency and standby power system, and a smoke control system. An approved fire safety and evacuation plan would also be prepared and maintained.

The Capitol Annex Project area is located within the service area of SFD, whose Fire Station No. 2 would provide first responder service to the project. SFD has equipment designed to fight fires in multistory and underground buildings, like those associated with the proposed project. The average emergency response time for SFD is 8 minutes and 24 seconds for 90 percent of fire/Emergency Medical Services incidents (Tunson, pers. comm., 2019), which does not meet the 7-minute recommended standard for emergency response. There are no standard criteria for nonemergency response by SFD.

Although SFD has the primary responsibility for fire prevention and fire suppression in the city, firefighting agencies generally work together under mutual aid agreements during emergencies. These teaming arrangements are handled through the California Office of Emergency Services (described above under "Fire Protection" in Section 4.14.2, "Environmental Setting"). Because the project site is located in downtown Sacramento, a highly urbanized area currently served by SFD, replacement of the existing Annex with the same number of occupants would not affect the current demand for fire protection service from SFD or other mutual aid responders at the site and would not affect response times.

The State fire marshal would defer to the local fire authority, SFD, for water and fire access (Tunson, pers. comm., 2019). As part of the project, SFD would participate in the project design review process by reviewing design plans for the structures and recommending additional design features or other fire safety prevention measures as necessary. SFD conducts regular inspections to enforce fire protection and building code and safety standards in existing structures and new construction. In addition, fire-safe construction activities are encouraged through inspection and plan checks of site access for emergency equipment, and through the confirmation of the availability of water supplies for new construction. The project would replace an aging building with a new structure that would be constructed according to minimum necessary fire protection and safety requirements identified in the California Fire Code, California Building Code, and other applicable regulations such as the portions of the State of California Building Code applicable to high-rise and underground buildings; therefore, impacts on fire protection facilities, equipment, and services would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.14-2: Increased Demand for Fire Flow

The Capitol Annex Project would involve the development of a new, approximately 525,000-square-foot Annex, an approximately 40,000-square-foot underground visitor/welcome center, and a single-level underground parking garage, which would require adequate available water flow for fire suppression (fire flow). Fire flow quantities have been established and would be available to meet project requirements, and the project would incorporate the necessary fire protection infrastructure (see the discussion of Impact 4.14-1, above). Therefore, this impact would be **less than significant**.

As described above, the Capitol Annex Project is located within the SFD service area and would involve demolition of the existing Capitol Annex and replacement with a new building that is approximately 200,000 gross square feet larger. The project would also include development of a new, approximately 40,000-square-foot underground visitor/welcome center and underground parking garage.

The State Fire Marshall is the authority having jurisdiction to ensure that adequate water pressure and volume are available for fixtures in the department's service area (Tunson, pers. comm., 2019). Methods to calculate minimum fire flow involve design-specific calculations, including the density of structures, height, number of stories, square footage, building materials, and structural design. In accordance with 2016 California Fire Code, fire flow requirements are 6,000 gpm (measured at 20 pounds per square inch [psi]) for the project with a minimum 4-hour duration. The State Fire Marshall would require fire flow test results to be submitted with design plans prior to construction, and would not authorize occupancy of any structures until the provision of appropriate fire flows has been confirmed (Tunson, pers. comm., 2019).

As described above in the discussion of Impact 4.14-1, the project would include fire protection infrastructure and elements consistent with the California code for high-rise buildings and the City of Sacramento High-Rise Ordinance (as determined to be applicable by the State Fire Marshall), including fire pumps connected to a fire water storage tank, an automatic sprinkler system, a breathing air system, an emergency and standby power system, and a smoke control system.

The project would have dedicated water supply sufficient for identified fire flow quantities before building occupation and would include the necessary fire control and suppression infrastructure, as required by the California Fire Code. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.14-3: Increased Demand for Law Enforcement Services, Facilities, and Equipment

Implementation of the Capitol Annex Project would result in a reconfiguration of security and law enforcement services at the project site during project construction. Specifically, private security would be provided by the construction contractor at the construction site and in the area of the Capitol Park closure, and public entry to the Capitol building would be consolidated from the existing three public entrances to two entrances: one at the new visitor/welcome center and the other at a temporary north entry point to the Capitol building. Additionally, during construction of the Annex, displaced employees would be relocated to the 10th and O Street Office Building, where CHP would provide security services for the duration of their tenure at that location. These changes to the configuration of security and law enforcement for the project area are designed such that they would have a **less-than-significant** impact on police protection services, facilities, and equipment during construction. The project would not result in an increase in the number of staff or visitors within the project area after project implementation, and public access to the State Capitol building would be centralized through the new visitor/welcome center access point established before the Annex is constructed. Because of these factors, existing law enforcement services, facilities, and equipment would be adequate to serve the Capitol Annex Project during long-term operation of the proposed project, and this impact would be **less than significant**.

The Capitol Annex Project includes demolition and replacement of existing Capitol Annex. The new Annex would serve the same purpose as the existing Annex, providing office space, hearing rooms, conference rooms, and supporting facilities for the legislature and executive branch. Approximately 1,700 personnel (i.e., combined elected officials, their staff, and other employees in the Capitol building) work in the Annex. The number of employees would not change as a result of development of the new Annex. The project would also include construction of two underground facilities: a visitor/welcome center, through which public access to the Capitol would be allowed, and an underground parking facility.

CHP CPS has jurisdictional responsibility for State property, including the project area, and provides patrol services in the project vicinity. CHP also provides security for the California Legislature and executive branch at the Capitol Annex. Law enforcement services for other areas within the city are provided by SPD. CHP and SPD share a concurrent jurisdictional relationship within the area surrounding the Capitol building, including the project site. Therefore, although CHP provides primary law enforcement services within the project area, SPD responds to incidents as they arise, if necessary, on State-owned property.

During construction, CHP would continue to provide security for executive and legislative branch employees. In addition, the construction contractor would provide primary security for construction areas and areas of park closure, with CHP CPS and SPD providing public law enforcement services in the event of an incident at these locations. These dual layers of law enforcement and security services in the areas of construction, park closure, and in the vicinity of the project site would increase security during construction but would not result in increased demand for CHP CPS or SPD staff or facilities.

As described in Section 3.4.2, "Project Phasing," in Chapter 3, "Project Description," implementation of the Capitol Annex Project would be sequenced. Before demolition of the existing Annex would be initiated, the legislature and executive branch offices and related facilities would be temporarily relocated to the new 10th and O Street Office Building, currently under construction between 10th Street and 11th Street, north of O Street. During that occupancy, CHP would provide the same security services as currently provided at the Annex. In addition, private security would be provided through the construction contractor to secure the construction site and promote safe access between the Historic Capitol and the 10th and O Street Office Building. After the new Annex is complete, the legislative and executive branch staff would return to the Annex, and the 10th and O Street Office Building would be used as general State office space; CHP would provide ongoing police services to the Annex and 10th and O Street Office Building.

Existing public entry/security checkpoints at the Annex are provided at the north, south, and east sides of the building. These entries/security checkpoints would be closed during demolition and construction of the new Annex. To provide continued safe and efficient public entry to the Historic Capitol during construction, and to provide new permanent secure entry points, the project includes a new underground visitor/welcome center on the west side of the Capitol that would be complete and operational before demolition of the existing Annex begins, and a publicly accessible entry on the north side of the Historic Capitol would be added to facilitate entry during Annex construction. The two new security checkpoints would provide the same level of visitor security as currently provided by the entry points at the existing Annex, including passing through metal detectors, x-ray and visual examination of all packages, and presentation of positive identification.

After the new Annex is complete and operational, the security configuration would see all public traffic to the Capitol enter through the visitor/welcome center, which would be streamlined relative to the current three-entrance configuration. As described in Chapter 3, "Project Description," the project would not result in additional visitors to the Historic Capitol or Capitol Park, and the new Annex would serve the same number of occupants as it currently serves. Therefore, project operations would not result in the need for additional law enforcement services or facilities. Because additional private security would be provided during construction, because operation of the new Annex would not result in the need for police services beyond what is already provided by CHP and SPD, and because the project would not reduce emergency response times for law enforcement services or require additional law enforcement facilities, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

Impact 4.14-4: Increased Demand for Recreational Facilities

The Capitol Annex Project would involve demolition and replacement of the Capitol Annex and construction of a new underground visitor/welcome center and an underground parking garage. The new Annex would serve the same number of staff and visitors as it currently serves, and the function of the Annex would not change; therefore, it would not increase demand for recreational facilities within the project area. However, during construction, the extent of recreation facilities would be reduced compared to existing availability because access to the Historic Capitol would be restricted and the west end of Capitol Park would be closed. Events and activities currently held on the project site would need to be relocated to the open portions of Capitol Park or to other public or private venues. Events within the open portions of Capitol Park and along Capitol Mall would continue under the existing CHP permitting process and after project construction is complete full access to Capitol Park would be restored. Any statues, memorials, plaques, and similar items that must be temporarily or permanently moved as a result of the project would be catalogued and stored in a secure location during construction. When construction is complete, all statues would be returned to Capitol Park in a setting similar to their original location and all plaques and memorials would be replaced and attributed to the same type of feature they were originally attributed to. Therefore, this impact would be **less than significant**.

The Capitol Annex Project would not change the long-term demand for recreational facilities because the number of occupants in the Annex would remain the same and the number of annual visitors to the State Capitol and Capitol Park would not be affected by the project. After construction is complete and the Annex is operational, events at the State Capitol and surrounding area of Capitol Park would continue, and Capitol Park would remain accessible to visitors, workers, and residents. Therefore, operation of the new Annex would not increase demand for recreational facilities and would not require new or expanded parks facilities.

During construction, various portions of approximately one-third of Capitol Park would be closed to public access, including the Capitol steps and areas immediately surrounding the Historic Capitol building. As stated above, each year, numerous events, demonstrations, and activities take place at Capitol Park and the Capitol building, and the Capitol steps are the central site for many of them. CHP permits events within Capitol Park through a public permitting process whereby applicants can apply to hold an event within various designated areas of the park, as identified in Figure 4.14-1. In 2018, the number of permits issued for areas west of 12th street (near the Capitol building), where project construction closures would occur (Figure 4.14-1), was approximately 750. The number of permits issued for all other areas of the park was approximately 350 (Moos, pers. comm., 2019).

Events west of 12th Street and others would be disrupted during the 4-year closure of the project site for construction. Figure 4.14-1 identifies the entire area of construction closure required for project implementation; however, not all areas would be closed during the entire construction period. The visitor/welcome center construction is anticipated to take place from August 2020 through December 2021; during this time, the west steps of the State Capitol and the western portion of the park extending roughly from the west side of the State Capitol to the western edge of Capitol Park would be closed. There would also be restricted parking and lane closures along 10th Street adjacent to the closed portion of Capitol Park. During Capitol Annex demolition and construction, anticipated from February 2022 through November 2025, areas of Capitol Park south, north, and immediately east of the State Capitol would be closed to public access. During this time, there would be restricted parking and lane closures along N Street adjacent to the closed portion of Capitol Park (specifically, from 10th Street to 12th Street). The underground parking facility would be constructed from May 2024 through July 2025 and would result in Capitol Park closures in the area immediately south and southwest of the Capitol building.

During project construction, closed portions of the park would not be available for events, but CHP would continue the regular permitting process for events within the open portions of Capitol Park in the manner in which they are currently processed. As a result, during construction, events could still be hosted in the open portion of Capitol Park, farther away from the Historic Capitol. For very large events that Capitol Park would not be able to accommodate

during the closure, other public or private facilities within the Sacramento region would be necessary. Such facilities could include the California Exposition and State Fair (Cal Expo) grounds, Sleep Train Arena, the Golden 1 Center in downtown Sacramento, or other parks and facilities.

After construction, the Capitol steps and surrounding Capitol Park lands in the project site would be completely reopened to the public. Although the project would increase the square footage of the Annex, the number of staff occupants and visitors would remain the same. Visitors, workers, and residents in the area would be expected to use the same parks that they currently use, particularly Capitol Park, maintained by DGS, and Roosevelt Park and Fremont Park, maintained by the City, which are within walking distance of the project site. Events at and near the State Capitol could continue as they did before construction. DGS is not required to pay city park-development fees for nonresidential development, and ongoing maintenance of Capitol Park is and would continue to be funded through bonds, grants, and visitor fees collected from museums and concessions. Therefore, operation of the new Annex would not increase demand for recreational facilities and would not require new or expanded parks facilities.

Construction activities associated with the demolition and replacement of the Capitol Annex and construction of the visitor/welcome center and underground parking structure would require removal of an estimated 20-30 trees as well as statues, memorials, plaques, etc. located within the construction activity area. Any statues, memorials, plaques, and similar items that must be temporarily or permanently moved as a result of the project would be catalogued and stored in a secure location during construction. For trees, statues, memorials, plaques, markers, or other features that have been dedicated to, recognize, or honor a particular individual or group, the State would send a letter to that person, or representative of that person or group, notifying them that the feature would be temporarily removed during project construction, then returned to Capitol Park when construction is complete. All statues would be returned to Capitol Park in a setting similar to their original location. All plaques, memorials, and markers would be replaced and attributed to the same type of feature it was originally attributed to. For example, a plaque attributed to a redwood tree would then be returned to a redwood tree included in the post construction landscaping plan. Trees to be removed would be evaluated for the potential to relocate them, but due to the size and logistics of moving mature redwoods, in most cases new trees would likely need to be planted. Seedlings or nursery stock from the same tree or tree species would be used to grow the replacement tree. Cloning would also be evaluated as a potential mechanism for tree replacement.

Although recreation space, events, and memorials at Capitol Park would be disrupted during the approximately 4-year construction period, events could be accommodated at other locations in Capitol Park or at other event sites in Sacramento and would resume on the Capitol grounds after completion of the project. In addition, recreation space, memorials, and points of interest would be reestablished after project construction is complete. Because the project would not affect numbers of residents, visitors, or employees in the region, it would not result in increased demand or use of parks or require new or expanded park facilities. Therefore, the project's impact on recreation facilities would be temporary and this impact would be **less than significant**.

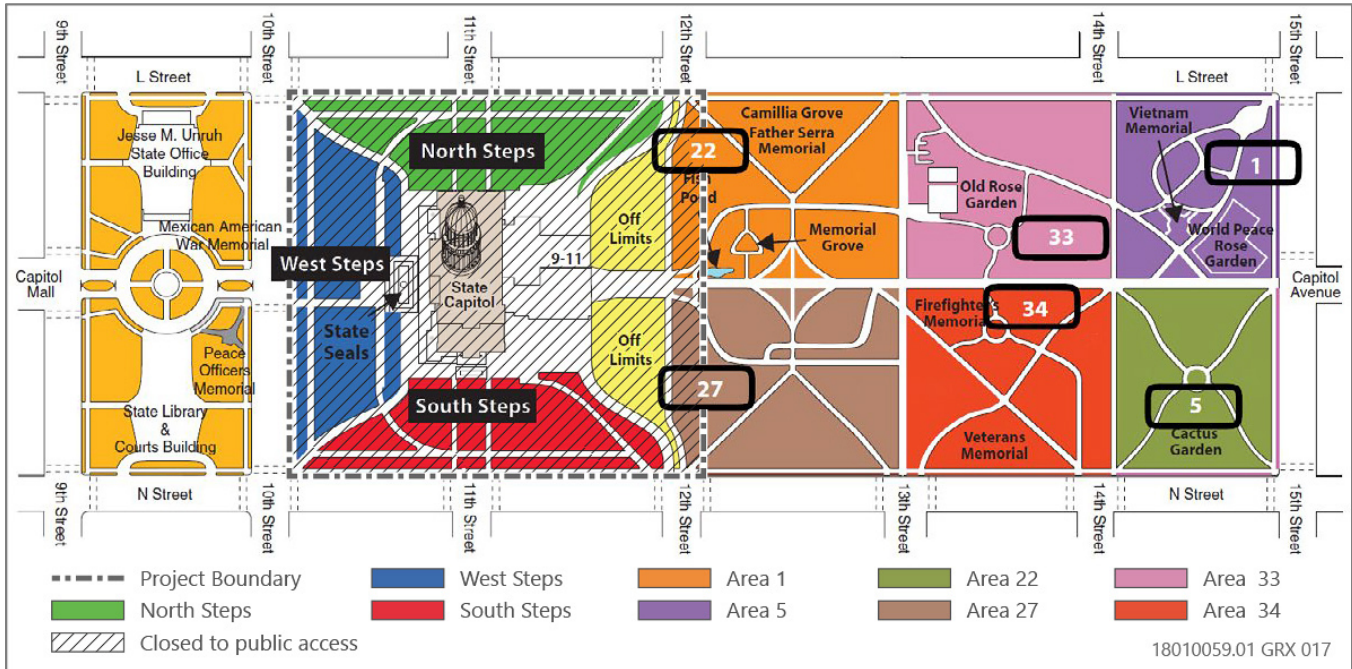
Mitigation Measures

No mitigation is required for this impact.

Degradation of the Recreational Experience

The State Capitol building and the surrounding Capitol Park are singular, iconic venues. This fact makes them enduring and appealing locations for many recreational and political events. Such activities range from those as small as a single visiting family enjoying the steps of the State Capitol building to large events such as the world-renowned annual CIM, the finish of which, as described above, is located in front of the Historic Capitol. As described above for Impact 4.14-4, for a period of approximately 4 years, that connection to a cherished resource would be lost or diminished. For many people, the partial closure of Capitol Park and the Capitol building steps would be viewed as a disappointment, and would alter their experience of these events and Capitol Park generally. However, such events would still take place, either at the same location in a modified format or at another location. Although visitors would not have direct access to the State Capitol building or closed portions of the park during construction, the building could still be viewed from a distance, and other nearby park spaces would be available for recreational enjoyment.

These effects on public enjoyment and the symbolic nature of the State Capitol building relate to cultural experiences. However, the purpose of CEQA is to determine whether a project would have a significant adverse effect on the environment. "Significant effect on the environment" is defined as a substantial adverse change in the *physical* conditions that exist in the area affected by the proposed project (14 CCR Section 15002[g])(emphasis added). "Environment," as defined by CEQA, refers to "the *physical* conditions that exist within the area which will be affected by a proposed project, including land, air, water, minerals, flora, fauna, noise, or objects of historic or aesthetic significance" (PRC Section 21060.5) (emphasis added). For these reasons, these cultural elements are not evaluated in terms of their physical environmental significance in this EIR but are nonetheless described and disclosed for their social significance and importance to the region, its residents, and visitors.



Note: Areas shown as "Off Limits" are areas that are off limits to events; no events are permitted in those areas.

Source: Prepared by Ascent Environmental in 2019

Figure 4.14-1 Event Areas

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4.15 AESTHETICS, LIGHT, AND GLARE

This section provides a description of existing visual conditions, meaning the physical features that make up the visible landscape, near the Capitol Annex Project site and an assessment of changes to those conditions that would occur from project implementation. The effects of the project on the visual environment are generally defined in terms of the project's physical characteristics and potential visibility, the extent to which the project would change the perceived visual character and quality of the environment, and the expected level of sensitivity that the viewing public may have where the project would alter existing views. The methodology discussion below provides further detail on the approach used in this evaluation.

4.15.1 Regulatory Setting

FEDERAL

No federal plans, policies, regulations, or laws related to aesthetics, light, or glare are applicable to the Capitol Annex Project.

STATE

Capitol Area Plan

The 1997 Capitol Area Plan (CAP) serves as the master plan for development of State-owned land within the Capitol Area. A few of the statutory objectives and related principles that form the basis of the CAP both directly and indirectly address design objectives and aesthetic issues, as follows:

- ▶ **Land Use.** To establish patterns of land use in the Capitol Area which are responsive to the goals of the Capitol Area Plan, which provide for flexibility in meeting future State needs, and which protect the State's long-term interest without inhibiting the development process.
 - **Principle 3:** Consider transit accessibility, protection of the State Capitol Building's prominence, and linkage to surrounding neighborhoods in the location, intensity, and design of development.
- ▶ **State Offices.** To provide offices and related services to meet present and future space requirements for the State of California near the State Capitol and in the context of metropolitan Sacramento, in the most effective manner.
 - **Principle 3:** Ensure that building massing for office development enhances the Capitol Area's urban character, respects and maintains the State Capitol Building and Capitol Park as the focus of the Capitol Area, and provides adequate transition to the surrounding neighborhoods.
 - **Principle 5:** Intensify office space use on underutilized sites or in aging State facilities through renovation of existing buildings or through redevelopment.
- ▶ **Open Space and Public Amenities.** To develop within the Capitol Area a network of attractive and convenient open spaces and access routes to improve the environment for workers, residents and visitors, and to encourage a favorable response to alternatives for moving within and using the resources of the Capitol Area.
 - **Principle 2:** Incorporate open space features into new office facilities and housing developments.
 - **Principle 4:** Ensure a streetscape that enhances the Capitol Area's identity and sense of place, is responsive to the needs of pedestrians and the requirements of adjacent activities, and orients visitors to destinations and services within the Capitol Area. Chapter 11 of the 1997 Capitol Area Plan includes a set of "Urban Design Guidelines," which are broadly intended to...promote the Capitol Area's identity, vitality, and sense of place, and foster an environment that is conducive to living, working, and visiting. The relationship between

buildings and streets, pedestrian shade and comfort, visitor orientation, and safety are all important components of neighborhood building.

The following Urban Design Guidelines included in the CAP do not represent commitments to specific design solutions, nor are they implementing actions. These guidelines outline an advisory framework to guide the character and quality of the urban environment. They are intended as suggestions to be used by architects, site planners, and developers for development of specific sites (DGS 1997). The Urban Design Guidelines are as follows:

- ▶ **Guideline 1:** Maintain the State Capitol Building as the focus of the Capitol Area.
- ▶ **Guideline 2:** Ensure that all development complies with the stipulations of the Capitol View Protection Act.
- ▶ **Guideline 3:** Promote mixed-use development.
- ▶ **Guideline 4:** Maintain building intensities that are appropriate to the role of the Capitol Area and its setting.
- ▶ **Guideline 5:** Promote harmony between the old and the new.
- ▶ **Guideline 6:** Promote development that is pedestrian-friendly and has a neighborhood orientation.
- ▶ **Guideline 7:** Facilitate building identification and visitor orientation through a comprehensive signage program.
- ▶ **Guideline 8:** Promote streetscapes that further the Capitol Area's identity, and promote pedestrian comfort and safety.

Capitol View Protection Act

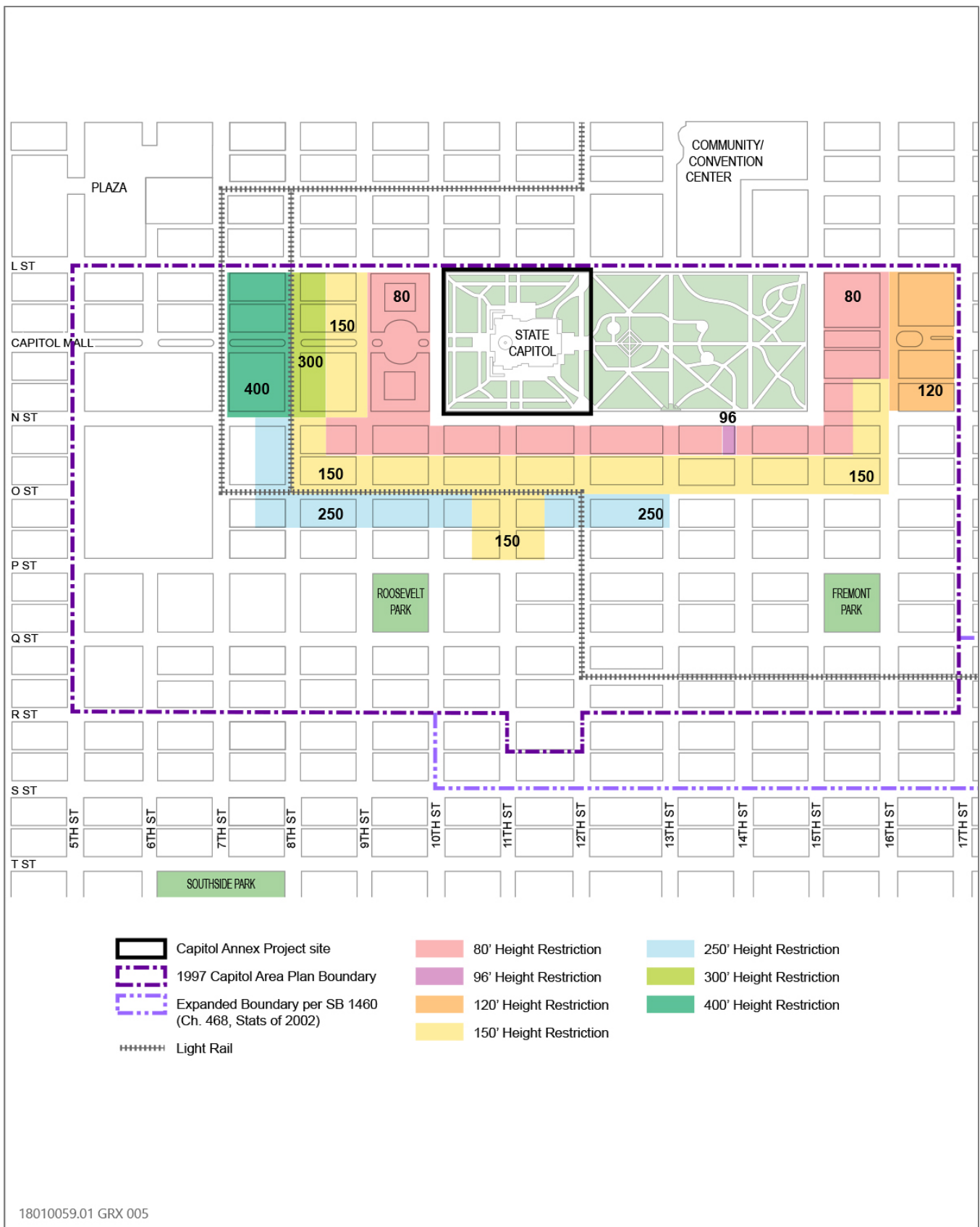
The Capitol View Protection Act (Government Code Section 8162 et seq.) was enacted to maintain the visual prominence of the State Capitol by setting height restrictions in zones surrounding the Capitol building (Figure 4.15-1), and to maintain the existing urban edge of surrounding streets by requiring certain building setbacks (California Office of Historic Preservation 2005). The Capitol View Protection Act does not individually address the State Capitol building because the purpose of the act is to protect State Capitol views as development occurs within the vicinity of the Capitol property. For this reason, the project would not be required to comply with the Capitol View Protection Act.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen) is Part 11 of the California Buildings Standards Code and is the first statewide green building code in the United States. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings using building concepts that have a positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to State-owned buildings, among others. The 2016 version of CALGreen includes mandatory standards to reduce light pollution for subject properties (CBSC 2017a, 2017b). The provisions of the code include maximum allowable backlight, uplight, and glare ratings intended to minimize light pollution in order to maintain dark skies and to ensure that newly constructed projects reduce the amount of backlight, uplight, light, and glare from exterior sources.

California Scenic Highway Program

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the highways. The highway closest to the Capitol Annex Project site that is designated scenic is State Route (SR) 160. SR 160 parallels the Sacramento River and is designated scenic between the Contra Costa/Sacramento County line and the south city-limit line for the city of Sacramento. The north terminus of the segment of the highway that is designated scenic is more than 7 miles from the Capitol Annex Project site, and the site is not visible from this location. No other State-designated scenic highways are near the project site (Caltrans 2017).



Sources: Adapted by Ascent Environmental; DGS 1997, DGS 2005

Figure 4.15-1 Capitol View Protection Act Height Restrictions

Senate Bill 743

The California Legislature adopted a CEQA streamlining bill, SB 743, for residential, mixed-use residential, or employment center projects on infill sites within transit priority areas (PRC Section 21099[d]). As explained in Section 4.3, "Transportation and Circulation," of this Draft EIR, the Capitol Annex Project is within a transit priority area and it qualifies for CEQA streamlining benefits provided by SB 743. As a qualifying project, SB 743 provides that neither the project's aesthetic impacts nor parking impacts shall be considered significant impacts on the environment (PRC Section 21099[d][1]).

Assembly Bill 2667

AB 2667 adds Section 9105.5 to the Government Code and requires that any work of construction, restoration, rehabilitation, renovation, or reconstruction pursuant to Article 5.2 (State Capitol Building Annex Act of 2016) shall do all of the following:

- ▶ Incorporate elements complementary to the historic State Capitol, elements to make the newly constructed state capitol building annex or the restored, rehabilitated, renovated, or reconstructed State Capitol Building Annex efficient and sustainable, and historic elements from the existing State Capitol Building Annex.
- ▶ Integrate within its design elements that educate and impress upon visitors the rich heritage of symbolism that earlier generations of Californians made a vital part of the palette of the historic State Capitol design so as to convey the meaning of California's self-governance and the state's unique and ever-distinctive heritage.
- ▶ Incorporate symbolic treasures, as is befitting the heritage of symbols left by California's founders for current and future generations to enjoy and explore, so as to ensure that the legislative and executive branch working spaces in the newly constructed state capitol building annex or the restored, rehabilitated, renovated, or reconstructed State Capitol Building Annex are no longer barren and devoid of the enriching presence of those symbols of self-governance.
- ▶ It is the intent of the Legislature that any newly constructed State Capitol Building Annex or the restored, rehabilitated, renovated, or reconstructed State Capitol Building Annex be designed to welcome all visitors to a safe, healthful, accessible, and working State Capitol, including historic chambers supported by needed caucusing spaces, offices for the Chief Clerk of the Assembly, the Secretary of the Senate, and the Legislative Counsel; hearing spaces to facilitate the convenient conduct of hearings during sessions, and space for the Sergeants at Arms so that all Californians may effectively engage with their elected representatives and their state government in meaningful, participatory, and deliberative democracy.

LOCAL

The Capitol Annex Project site is located in downtown Sacramento on the State-owned Capitol grounds. The project, authorized by legislation, would be implemented by the Joint Rules Committee (JRC) under a memorandum of understanding (MOU) with DGS, with DGS providing specific services at the direction of JRC. As explained in Section 4.2, "Land Use and Planning," of this Draft EIR, in Section 4.2.1 "Regulatory Setting," the legislature is exempt from complying with local plans, policies, or zoning regulations. Nevertheless, in the exercise of its discretion, the JRC references, describes, and addresses in this EIR local plans, policies and regulations that are applicable to the project. DGS, working with JRC pursuant to the MOU, will determine the content of the EIR. This evaluation is also intended to be used by local agencies for determining, as part of their permit processes, the project's consistency with local plans, policies, and regulations.

City of Sacramento 2035 General Plan

The following goals and policies from the Land Use and Environmental Resources Elements of the City of Sacramento 2035 General Plan (2035 General Plan) are relevant to the analysis of aesthetics, light, and glare effects:

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 where feasible, responsiveness to Sacramento's climate, and consideration of cultural and historic context of Sacramento's neighborhoods and centers.

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 2.7.3: 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 2.7.6: Walkable Blocks.** The City shall require new development and reuse and reinvestment 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 5.6.5: Capital View Protection.** The City shall ensure development conforms to the Capital View Protection Act.
- ▶ **Policy ER 7.1.1: Protect Scenic Views.** The city shall avoid or reduce substantial adverse effects of new development on views from public places to the Sacramento and American Rivers and adjacent greenways, landmarks, and the State Capitol along Capitol Mall.
- ▶ **Policy ER 7.1.3: Lighting.** The city shall minimize obtrusive light by limiting outdoor lighting that is misdirected, excessive, or unnecessary, and requiring light for development to be directed downward to minimize spill-over onto adjacent properties and reduce vertical glare.
- ▶ **Policy ER 7.1.4: Reflective Glass.** The city shall prohibit new development from (1) using reflective glass that exceeds 50 percent of any building surface and on the bottom three floors, (2) using mirrored glass, (3) using black glass that exceeds 25 percent of any surface of a building, (4) using metal building materials that exceed 50 percent of any street-facing surface of a primarily residential building, and (5) using exposed concrete that exceeds 50 percent of any building.

The Capitol Annex Project site is located within the Central Business District as designated in the 2035 General Plan. The 2035 General Plan includes Urban Form Guidelines that apply to this area. The Central Business District is Sacramento's most developed area, and the vision for this area includes a vibrant downtown core that will continue to serve as the business, governmental, retail, and entertainment center for the city and the region. A significant element envisioned for the future is to include new residential uses intended to add vitality to this area. The Urban Form Guidelines identify a mixture of mid- and high-rise buildings creating a varied and dramatic skyline and mixed-use development as key urban form characteristics.

Central City Community Plan

The Central City Community Plan, which is intended to supplement the citywide policies above, includes the following relevant policies:

- ▶ **Policy CC.LU 1.4: Office Development.** The city shall encourage public and private office development, where compatible with the adjacent land uses and circulation system, in the Central Business District, Southern Pacific Railyards, and Richards Boulevard area.
- ▶ **Policy CC.LU 1.5: Central Business District.** The city shall improve the physical and social conditions, urban aesthetics, and general safety of the Central Business District.

Sacramento Central City Urban Design Guidelines

The City has design guidelines for each design review district within the city. The guidelines are used by the City's Design Review and Preservation Board to integrate projects with the appearance, scale, capacity, and character of various neighborhoods or districts in the city. The Capitol Annex Project is located in the Central Business District and the Central Core Design Guidelines Area (City of Sacramento 2009). These guidelines convey the City's expectations for design excellence in the Central City (City of Sacramento 2009:1.1-1 through 1.1-6).

The intent is to ensure that all development in the Central City contributes to making downtown Sacramento a unique and special place that includes a residential component integrated into the commercial center. To advance the vision set forth in the 2030 General Plan to be "the most livable city in America," the new Central Core Design Guidelines (Section 3 of the Urban Design Guidelines) are intended to ensure that proposed higher-density development also provides the qualities and amenities that will create an attractive, livable downtown with a lively mix of uses, walkable streets, an open and interesting skyline, and a high level of design expression (City of Sacramento 2009:1.1-1 through 1.1-6).

4.15.2 Environmental Setting

VISUAL CHARACTER OF THE PROJECT SITE AND VINICITY

Project Site

The project site includes the Historic Capitol and Capitol Annex building; an existing parking garage under the Annex; and associated landscaping, trees, and hardscape surrounding the property. The CAP Land Use Diagram currently designates landscaped portions of Capitol Park as Parks and Open Space but designates walkways and hardscape, including the State Capitol and the Annex, as Other Existing Use (DGS 1997).

Because of its cultural and governmental importance, the State Capitol is a scenic landmark within the City of Sacramento. Capitol Mall, which extends west from the Capitol building, includes a wide, open boulevard between the Sacramento River and the Capitol building. This corridor offers a unique view of the building by providing an uninterrupted view from Tower Bridge, located at the western end of Capitol Mall. The Sacramento Urban Design Plan lists Capitol Mall as one of the "Protected Views and Vistas." This view is primarily characterized by the tree-lined roadway, which includes two lanes of both westbound and eastbound traffic, divided with a landscaped median strip (City of Sacramento 2015).

The approximately 325,000-square-foot Annex accommodates members of the California Executive Branch, Assembly, and Senate in addition to serving as the entrance for the general public. The Annex has six stories, most of which contain office and meeting space for legislature members and staff. As shown in the images of project area conditions below [4.15-5 (Photo 6)], the exterior of the Annex, which was designed in the Mid Century Moderne architectural style, is constructed of painted white concrete-on-steel (Dreyfuss & Blackford Architects and Page & Turnbull 2006). Beneath the Annex is an underground parking garage that serves members of legislature and State Capitol building employees. Westbound vehicles access the garage from L Street, north of the Capitol, and eastbound vehicles from N Street, to its south. Both entrances also serve as exits. The existing garage has approximately 150 parking spaces.

Vicinity

The project site is bounded on the north by L Street, on the east by Capitol Park and 15th Street, on the south by N Street, and on the west by 10th Street. The site is surrounded by cement sidewalk along the northern, western, and southern boundaries and by paved walking paths on the east. Trees and other landscaping are present within the site and along the paved sidewalks and walking paths. The area east of the project site includes additional portions of Capitol Park. Capitol Park encompasses 37 acres and includes a variety of memorials, gardens, paved pathways, and trees from around the world. The park includes over 200 trees, varying in size, species, and importance. For more

information related to the historic and cultural elements, and events at Capitol Park, please refer to Section 4.12, "Cultural and Tribal Cultural Resources," and Section 4.14, "Public Services and Recreation."

Land uses surrounding the project site include the Legislative Office Building and Lewis Apartments on the south across N Street; Caltrans headquarters on the southeast; the Jesse M. Unruh Office Building, Stanley Mosk Library and Courts Building, and Capitol fountain on the west; and business and commercial buildings on the north. Buildings surrounding the project site range in size and height. Many of the surrounding buildings feature concrete façades, flat roofs, and multilight windows. Streets are generally framed by buildings and mature ornamental trees, and most buildings have requirements for minimum setbacks from the street. In addition to the buildings surrounding the project site, other uses in the vicinity include surface parking lots, parking garages, and infrastructure for light rail transportation.

The buildings in the vicinity of the project site consist of a mix of low-rise, mid-rise, and high-rise structures. For the purposes of this analysis, low-rise buildings are considered to include those that stand from one to four stories above ground level, mid-rise buildings are those that stand five to 12 stories above ground level, and high-rise buildings are those that stand 13 or more stories above ground level. The tallest nearby building—the California Natural Resources Agency Building—is 14 stories tall with unscreened rooftop appurtenances (such as individual satellite discs). This building is about two blocks southwest from the project site and is bounded by Neighbors Alley, 9th Street, O Street, and 8th Street.

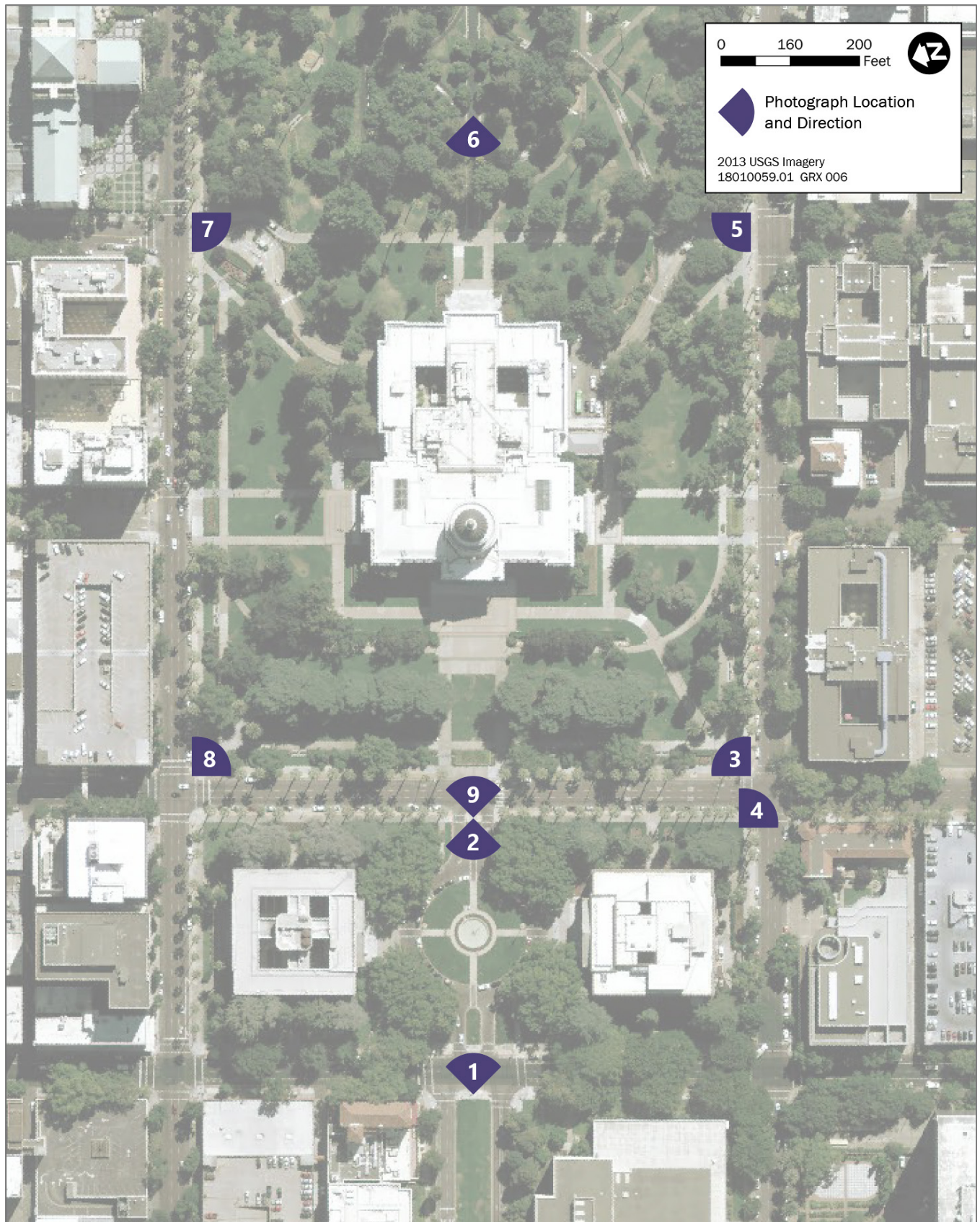
Representative views of the project site and vicinity, which correspond to the viewpoints illustrated in Figure 4.15-2, are depicted in Figures 4.15-3 through 4.15-7 and are described in detail below.

Photo 1 (Figure 4.15-3) shows a view of the western (primary) façade of the Capitol building, looking east, from Capitol Mall. This viewpoint also shows the Capitol fountain. To the north and south of Capitol fountain are the Jesse M. Unruh Office Building and Stanley Mosk Library and Courts Building, respectively. Together, these two buildings and the Capitol fountain are identified as a historic district, referred to as the Capitol Extension Group. Photo 2 (Figure 4.15-3) shows a view looking west of the Historic Capitol and Annex down the Capitol Mall corridor. Long-distance and undisturbed views along Capitol Mall are recognized as a scenic vista. At the western end of Capitol Mall is Tower Bridge, which is a Sacramento landmark.

Photo 3 (Figure 4.15-4) shows views from the southwest corner of the project site and of the southern façade of the Capitol and Annex. This viewpoint provides a glimpse of the many paved walking paths, landscaped areas, and variety of on-site mature trees. From this viewpoint, portions of the Historic Capitol's primary façade are shielded by existing trees. Photo 4 (Figure 4.15-4) provides a view of the Legislative Office Building at the northwest corner of 10th and N Streets looking southeast. The Legislative Office Building is located directly south of the project site, across N Street. The building is five stories in height and bordered by pedestrian sidewalk and city street trees.

Photo 5 (Figure 4.15-5) shows views of the southeast portion of the project site. From this viewpoint, the eastern façade of the Annex can be seen, although it is largely shielded by existing trees. In addition to showing more paved walking paths, this photo includes the southern (N Street) entrance to the existing parking garage, located underneath the Annex. Photo 6 (Figure 4.15-5) shows a western view of the eastern façade of the Annex, looking west. As previously described, the approximately 325,000-square-foot building is six stories in height and provides office space for the executive branch, assembly, and senate. The eastern façade has six cement columns, leading up to the ground level by way of entry steps. From this view, the top of the rotunda can be seen from its position atop the Historic Capitol.

Photo 7 (Figure 4.15-6) provides views from the northeast portion of the project site looking southwest. From this viewpoint, portions of the northern façade of the Annex can be seen; however, it is largely shielded by existing trees. This photo also includes the northern (L Street) entrance to the existing underground parking garage. Photo 8 (Figure 4.15-6) provides a view of the project site from the northwest corner looking southeast. Portions of the western (primary) façade of the Historic Capitol can be seen behind the existing trees. This photo also provides an additional view of the many on-site paved walking paths and landscaping.



Source: Figure created by Ascent Environmental in 2019

Figure 4.15-2 Viewpoint Locations



Source: Photograph taken by Ascent Environmental in 2019

Photo 1: View of State Capitol looking east from 9th Street



Source: Photograph taken by Ascent Environmental in 2019

Photo 2: View of Capitol Mall corridor looking west from 10th Street

Figure 4.15-3 Existing Visual Conditions of the Project Site - Representative Photographs



Source: Photograph taken by Ascent Environmental in 2019

Photo 3: View of southwest portion of State Capitol looking northeast from 10th and N Streets



Source: Photograph taken by Ascent Environmental in 2019

Photo 4: View of Legislative Office Building looking southeast from 10th and N Streets

Figure 4.15-4 Existing Visual Conditions of the Project Site - Representative Photographs



Source: Photograph taken by Ascent Environmental in 2019

Photo 5: View of southeast portion of Capitol Annex looking northwest from N Street



Source: Photograph taken by Ascent Environmental in 2019

Photo 6: View of Capitol Annex eastern façade looking west

Figure 4.15-5 Existing Visual Conditions of the Project Site - Representative Photographs



Source: Photograph taken by Ascent Environmental in 2019

Photo 7: View of northeast portion of Capitol Annex looking southwest from L Street



Source: Photograph taken by Ascent Environmental in 2019

Photo 8: View of northwest portion of State Capitol looking southeast from 10th and L Streets

Figure 4.15-6 Existing Visual Conditions of the Project Site - Representative Photographs



Source: Photograph taken by Ascent Environmental in 2019

Photo 9: View of State Capitol primary façade looking east from 10th Street

Figure 4.15-7 Existing Visual Conditions of the Project Site - Representative Photographs

Photo 9 (Figure 4.15-7) shows the primary façade of the Historic Capitol. The Historic Capitol, constructed between 1860 and 1874, was built to house the executive branch, assembly, senate, state supreme court, and state library and archives (Joint Committee on Rules 2017). The four-story white-painted building is constructed of plaster-clad brick, granite, and painted cast iron. Atop the building is a rotunda and tall dome that rest on a drum. The primary façade of the Historic Capitol also includes a set of steps (commonly referred to as the “west steps”) and terraces. Sets of pillars and columns, as well as replicated balustrade sculptures, can also be viewed along the primary façade of the Historic Capitol (Dreyfuss & Blackford Architects and Page & Turnbull 2006). For further discussion of the historic features of the Historic Capitol, refer to Section 4.12, “Archaeological, Historical, and Tribal Cultural Resources.” In front of the Historic Capitol is a set of parallel, paved walking paths, landscaping, and several historic and ornamental trees. City sidewalk is featured along 10th Street because large groups (e.g., students and tours) often use this portion of the street for drop-off and pickup services.

LIGHT AND GLARE CONDITIONS

Existing sources of light and glare are uniformly present in the project vicinity. Sources of light include streetlights along project roadways; lights in parking lots, along walkways, and on the exteriors of buildings; lights associated with the light rail system; and interior lights in buildings.

Natural and artificial light reflects off various surfaces and can create localized occurrences of daytime and nighttime glare. Buildings and structures made with glass, metal, and polished exterior roofing materials exist throughout the Capitol Area; however, there are no reported occurrences of excessive daytime or nighttime glare in the project vicinity.

SHADOWS

The evaluation of shading and shadows in this Draft EIR is limited to daytime shadows cast by objects blocking sunlight. The angle of the sun, and hence the character of shadows, varies depending on the time of year and the time of day; however, in the Northern Hemisphere, the sun always arcs across the southern portion of the sky. During winter, the sun is lower in the southern sky, casting longer shadows compared to other times of year. During the summer months, the sun is higher in the southern sky, resulting in shorter shadows. During summer, the sun can be almost directly overhead at midday, resulting in almost no shadow being cast. During all seasons, as the sun rises in the east in the morning, shadows are cast to the west; at midday, the sun is at its highest point, and shadows are their shortest, and cast to the north; and as the sun sets in the west in the afternoon/evening, shadows are cast to the east. Because of the climate in the Sacramento area, midday and afternoon shade in summer can be beneficial. In the winter, however, access to sunlight can be beneficial.

Tall buildings are common in downtown Sacramento and frequently cast substantial shadows for a portion of the day. The numerous street trees and interior trees in the area also provide a substantial source of shade and shadow, which is considered an amenity during the Sacramento area's hot summers. Few areas in downtown Sacramento are not shaded during at least part of the day.

4.15.3 Environmental Impacts and Mitigation Measures

METHODOLOGY

The method used for this assessment of impacts on aesthetics, light, and glare is adapted from guidelines prepared by the Federal Highway Administration (2015) for assessing visual impacts associated with transportation projects; these guidelines are easily transferred to other types of projects that could alter existing landscapes. The process of describing and evaluating visual resources near the Capitol Annex Project site and the surrounding areas involves the following steps:

- ▶ Identify the visual features or resources that make up and define the visual character of the viewsheds. (A viewshed is a physiographic area composed of land, water, biotic, and cultural elements that may be viewed and mapped from one or more viewpoints. It has inherent scenic qualities and/or aesthetic values as determined by those who view it.)
- ▶ Assess the quality of the identified visual resources relative to overall regional visual character
- ▶ Identify major viewer groups and describe viewer exposure.
- ▶ Identify viewer sensitivity, or the relative importance of views to people who are members of the viewing public.

The area of potential visual impacts for the Capitol Annex Project is limited to downtown areas immediately surrounding the State Capitol. Elements considered when evaluating the general visual quality and character of the downtown Sacramento area include commercial buildings, office buildings, residences, parking lots, streets, and other structures; trees and landscaping; public outdoor spaces, such as parks and plazas; and views of the State Capitol and Capitol Park.

"Viewer exposure" refers to the location of viewer groups, the number of viewers, and the frequency and duration of views. Viewer sensitivity varies depending on the characteristics and preferences of the viewer group. An assessment of viewer sensitivity can be made based on the extent of the public's concern for a particular landscape or for scenic quality in general. Viewer sensitivity differs among various groups of people in the project vicinity. For this analysis, the visual sensitivity of viewers is considered high due to the State Capitol being a scenic landmark and the visual importance of Capitol Park, as well as the intensive use of Capitol Park by visitors, workers, and residents. Given the mix of office, commercial, and residential uses in downtown, the viewer groups considered in this Draft EIR are pedestrians (tourists), office workers, commuters, and residents/homeowners.

THRESHOLDS OF SIGNIFICANCE

An impact on aesthetics, light, and glare would be significant if implementation of the Capitol Annex Project would:

- ▶ have a substantial adverse effect on a scenic vista;
- ▶ substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings, within a state scenic highway;
- ▶ in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings;
- ▶ create a new source of substantial light or glare that would adversely affect day or nighttime views in the area; or
- ▶ create additional shadowing on shadow-sensitive uses (e.g., residences or parks) during a substantial portion of the day.

ISSUES NOT DISCUSSED FURTHER

The project site is not located near a designated scenic highway corridor. A portion of SR 160 between the Contra Costa/Sacramento County line and the Sacramento city limit line is a designated scenic route. The north terminus of the highway segment that is designated scenic is more than 7 miles from the project site, and the project site cannot be seen from this location. At this distance, the upper floors of taller buildings in the downtown Sacramento area may be visible from limited vantage points and would indicate the center of urban development in the region. However, an alteration of the skyline at this distance would be unremarkable.

Implementation of the Capitol Annex Project would result in demolition and reconstruction of the Annex at a greater size. Specifically, the existing 325,000-square-foot building would be reconstructed to a 525,000-square-foot building. While the size of the building would increase by 200,000 square feet, the new Annex would remain approximately the same in height. Any shadowing on shadow-sensitive uses resulting from reconstruction of the Annex would be essentially the same as existing conditions and would occur within the boundaries of the Capitol Annex Project site. The minor increase, if any, would not represent any adverse effects on shadow-sensitive uses during a substantial portion of the day. In addition, the new visitor/welcome center and parking garage would be constructed underground, which would not result in the creation of new shadows. For these reasons, shadow impacts are not discussed further in this Draft EIR.

ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Impact 4.15-1: Adverse Effect on a Scenic Vista

The Capitol Mall corridor is considered a scenic vista. Implementation of the Capitol Annex Project would require substantial construction activities, which would temporarily alter views of the primary façade of the Historic Capitol, located at the eastern end of Capitol Mall. Additionally, if any entrance features of the proposed visitor/welcome center are centrally located above ground and at the foreground of the Historic Capitol, scenic views of the State Capitol's primary façade would be permanently impaired. Because construction activities would be temporary, these activities would not result in a permanent adverse effect. However, any visitor/welcome center entry features located in front of the building would adversely affect views of the Historic Capitol, resulting in a permanent visual impact on an identified scenic vista. This impact would be **potentially significant**.

The east-facing view of Capitol Mall toward the State Capitol is considered a "protected view and vista" (City of Sacramento 2015). Implementation of the project would require the temporary use of large construction equipment, materials, and personnel. As described in Chapter 3, "Project Description," temporary fencing and other security measures such as cameras and lighting would be installed to prevent unauthorized access and promote site safety surrounding the construction area. Construction associated with the new visitor/welcome center and parking garage would occur near the west and southwestern portion of the project site, including portions of 10th Street (sidewalk

and street parking) and could impede views of the Historic Capitol. Construction associated with demolition and reconstruction of the Annex would include the sidewalk along N Street between 10th Street and 12th Street and the parking lane along the north side of N Street. The sidewalk along L Street between 11th Street and 12th Street would also be closed; however, the temporary construction exclusion area would not encroach onto L Street. Construction of the Annex would not extend beyond the eastern edge of 12th Street. Construction of each of the project elements would occur within four phases between 2020 and 2025. Additionally, once construction is complete, exclusion fencing and security measures would be removed and 10th Street would be restored to pre-project conditions. Therefore, construction activities would be temporary, would occur in individual project phases, and would not result in permanent impacts on the long-distance easterly views of the Historic Capitol and Capitol Mall.

As described above, the eastern views of the State Capitol from Capitol Mall are considered a scenic vista. Construction of any above-ground visitor/welcome center entrance structures (e.g., elevator shafts, stairwell(s)) at the foreground of the primary (western) façade of the Historic Capitol could result in permanent visual changes that could affect long-distance views and the protected view and vista from the Capitol Mall toward the Historic Capitol. The State Capitol is a scenic landmark within the city of Sacramento, and the Capitol Mall corridor offers a unique view of the building by providing an uninterrupted view from Tower Bridge. Conceptual sketches (Figure 3-4) have been drafted to indicate an above-ground Visitor/Welcome Center entrance that includes open stairs and two clear glass, enclosed elevators located on each side of the entrance, outside the viewshed of the Capitol Mall corridor. An aboveground entrance (or associated features) to the visitor/welcome center could—depending on its nature, scale, and location—substantially alter the long-distance views of the Historic Capitol from Capitol Mall. Such an entrance would specifically block views of the west steps, portions of the building’s prominent architecture, and existing landscaping that supports the overall visual integrity of the Historic Capitol’s primary façade.

Operation of the new visitor/welcome center and parking garage would not impair long-distance, scenic views because both structures would be located underground, below street level. Therefore, these structures would not be visible along the Capitol Mall corridor. Additionally, operation of the new Annex would not adversely affect the Capitol Mall scenic vista because views would be considerably shielded by the Historic Capitol.

Because architectural drawings have not yet been drafted and/or approved to determine the nature, scale, and location of the visitor/welcome center entrance, the potential construction of the entrance, or associated entry features, at the foreground of the Historic Capitol would substantially alter long-distance views of the Capitol Mall scenic vista. This impact would be **potentially significant**.

Mitigation Measures

Mitigation Measure 4.15-1: Establish and Implement Performance Criteria for Construction of the Visitor/Welcome Center Entrance

All aboveground visitor/welcome center entry structures (e.g., elevator shafts, stairwell shelters) shall be located outside the Capitol Mall scenic vista corridor.

Significance after Mitigation

Implementation of this mitigation measure would reduce Impact 4.15-1 to a **less-than-significant** level by precluding installation of any project features that would obstruct views from the Capitol Mall corridor and long-distance, scenic views of the State Capitol.

Impact 4.15-2: Substantial Degradation of Existing Visual Character or Quality

The Capitol Annex Project would result in demolition and reconstruction of the Annex, as well as construction of a new underground visitor/welcome center and parking garage. The project would involve temporary (i.e., construction-related) and permanent (reconstructed Annex building) visual changes in the project area. The Annex is located directly adjacent to the Historic Capitol, is surrounded by Capitol Park, and is within downtown Sacramento, an urban setting surrounded by office buildings, commercial buildings, residential buildings and roadways. The site design, building construction materials, finishes and landscaping would be consistent with the existing State Capitol and its prominent setting in Capitol Park. Although the project would result in temporary visual changes associated with construction of the new Annex, visitor/welcome center, and parking garage, the completed Capitol Annex Project would be similar to the existing visual setting and would not substantially degrade the visual character or quality of the site and its surroundings. Therefore, this impact would be **less than significant**.

As a result of growth in downtown Sacramento over the last 10 years, the Capitol no longer has the most prominent position on the skyline. Since June 1990, State officials have been working with the City of Sacramento to develop a plan that would guide future development in downtown in a way that would preserve and enhance the visual prominence of the Capitol and the character and scale of Capitol Park (California Office of Historic Preservation 2005).

The project area viewshed includes a wide mix of architectural styles from different eras. The project is being designed such that demolition and reconstruction of the Annex would retain the general character and integrity of the Historic Capitol. Although construction equipment, materials, and activities associated with project implementation (i.e., equipment, fencing, security measures, and construction workers) would degrade the visual character or quality of the project site, construction activities and personnel presence would be temporary. As described above, construction of each of the project elements would occur within four phases between 2020 and 2025. Therefore, any visual changes associated with such activities would be temporary and phased and would not permanently degrade visual character or quality.

High-sensitivity viewers in the project vicinity include pedestrians, such as tourists, residents, and office workers who regularly walk the area; commuters along L Street, 10th Street, and N Street; as well as employees that work in neighboring buildings adjacent to the project site or along Capitol Mall. Because these viewers are most familiar with the visual character of the Capitol and vicinity through regular exposure, these viewers could be most sensitive to visual changes of the State Capitol, Capitol Park, and Capitol Mall.

The site design and building construction materials used for the Annex would be consistent with those of the Historic Capitol. Similarly, materials used for construction of the underground visitor/welcome center and parking garage would also be consistent with existing similar uses in the project vicinity. Materials would be stable, durable, and timeless in quality; would not be prone to weathering or deterioration; and would require minimal maintenance and little or no replacement or refurbishment during the target 50-year lifespan of the project.

The landscape design would maintain existing trees and vegetation to the degree possible. If State-owned or City street trees need to be removed, or if new or substantially broader gaps were created in the canopy, new trees would be planted, if necessary. While construction activities would result in the damage or removal of some existing trees, it is the intent of the JRC to relocate, replant, and/or clone and replant, as many affected trees as possible to reduce impacts to the existing Capitol Park setting. Any new City street trees would include species consistent with downtown Sacramento's existing street tree canopy. New trees planted on the project site would include species similar to or consistent with existing trees in Capitol Park and surrounding the State Capitol. Deciduous shade trees would be used to provide summer shade and winter sun, would be able to thrive in urban conditions, would have low water requirements and be able to thrive without a permanent irrigation system, and would provide a large shade canopy at maturity.

Because the visitor/welcome center and parking garage would be constructed underground and ground surface landscaping and hardscape would be restored, they would be visually consistent with the project site after construction and surface restoration and landscaping.

The project would comply with applicable design guidelines and construction and operation of new Annex would be compatible with the existing Historic Capitol. The architectural treatment of the new Annex would be integrated with the Historic Capitol as well as surrounding State buildings. After construction is complete and the project is operational, the aesthetic character of the project site, as experienced by viewer groups in the area, would not be substantially altered. The Capitol Annex Project would not result in the long-term degradation of the visual character or quality of the site or its surroundings. Therefore, this impact would be **less than significant**. Furthermore, as stated in Section 4.15.1, "Regulatory Setting," above, of the Capitol Annex Project is located in a transit priority area per SB 743. As a qualifying project, the aesthetic impacts of the project would not be considered significant impacts even if the conclusion based on the characteristics of the project had been significant (PRC Section 21099[d][1]).

Mitigation Measures

No mitigation is required for this impact.

Impact 4.15-3: Introduction of New Sources of Light and Glare that Adversely Affect Day or Nighttime Views

The Capitol Annex Project would involve new lighting associated with construction and operation of the Annex, visitor/welcome center, and parking garage. Construction lighting would be temporary and would be utilized primarily as a security measure for the construction site. The proposed exterior finishes of the Annex, visitor/welcome center, and parking garage would not include materials that are highly reflective or that would produce substantial glare. Operational project-related light sources would be similar to the current lighting in downtown Sacramento in amount and intensity of light. In addition, lighting plans would be consistent with the U.S. Green Building Council's Leadership in Energy and Environmental Design version 4 (LEED v4) Green Building Rating System, which would reduce both the generation of exterior light and the potential for light trespass to affect off-site areas. The project would also be required to meet CALGreen standards that limit light and glare generated by State-owned buildings. For these reasons, project implementation would not create a new source of substantial light that would adversely affect day or nighttime views in the area. This impact would be **less than significant**.

Downtown Sacramento has a large amount of widespread, ambient light from urban uses. Existing sources of light associated with the project site include exterior building lighting, street and parking lighting, and spillover of internal lights to the exterior. During construction, security measures such as cameras and lighting would be installed to prevent unauthorized access and promote site safety. Security lighting would be similar to that used for residential security and would meet the California Energy Commission's Building Energy Efficiency Standards for Outdoor Lighting. Further, all security lighting would be shielded and angled downwards (into the construction area), to prevent excess spillover light from entering outside of the project site. Once operational, the Capitol Annex Project would not include additional light sources beyond the types of lighting that are found in the current urban environment. All interior and exterior lighting and fixtures would be selected based on architectural aesthetic, efficiency, maintenance, and glare control. Because the amount and intensity of light emitted would be similar to the current Annex and surrounding urban setting, the nighttime views from sensitive (residential) land uses would not be significantly affected. Furthermore, the project would not contribute substantially to sky glow effects generated by the community at large.

Daytime glare could be produced by the increased amount of surface area resulting from the new Annex, which could reflect or concentrate light. However, appropriate building materials, such as natural stone, precast concrete panels, clear or lightly tinted glass, stainless steel, anodized aluminum, factory-coated metal, and composite panels, would be used. The project would avoid using materials such as dark-tinted or highly reflective glass; materials that can generate substantial glare; painted wood, stucco, and other lightweight commercial materials; or field-painted ferrous steel or sheet metal. Although energy performance criteria encourage the use of reflective glass in architectural design to reduce penetration of solar radiation into the building interior, it would be avoided to prevent exterior reflections.

The project would include a lighting plan that is consistent with the U.S. Green Building Council's LEED Green Building Rating System requirements. The new building would achieve at least the U.S. Green Building Council's LEED v4 Silver certification. Consistency with LEED requirements would reduce both the generation of exterior light and the potential for light trespass to affect off-site areas. The project would also be required to meet CALGreen standards that limit light and glare for State-owned buildings. Compliance with LEED and CALGreen requirements are generally consistent with Policies ER 7.1.3 and ER 7.1.4 of the Sacramento 2035 General Plan that pertain to lighting and reflective glass. The project would comply with LEED criteria and standards contained in CALGreen for reducing light pollution and would avoid the use of highly reflective architectural materials for building design. For these reasons, project implementation would not create a new source of substantial light and/or glare that would adversely affect day or nighttime views in the area. Therefore, this impact would be **less than significant**.

Mitigation Measures

No mitigation is required for this impact.

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5 CUMULATIVE IMPACTS

5.1 INTRODUCTION TO THE CUMULATIVE ANALYSIS

This Draft EIR provides an analysis of cumulative impacts of the Capitol Annex Project taken together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the State CEQA Guidelines. The goal of such an exercise is twofold: first, to determine whether the overall long-term impacts of all such projects would be cumulatively significant; and second, to determine whether the incremental contribution to any such cumulatively significant impacts by the project would be “cumulatively considerable” (and thus significant). (See State CEQA Guidelines Sections 15130[a]–[b], Section 15355[b], Section 15064[h], and Section 15065[c]; and *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal. App. 4th 98, 120.) In other words, the required analysis intends first to create a broad context in which to assess cumulative impacts, viewed on a geographic scale beyond the project site itself, and then to determine whether the project’s incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., “cumulatively considerable”).

Cumulative impacts are defined in State CEQA Guidelines Section 15355 as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” A cumulative impact occurs from “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” (State CEQA Guidelines Section 15355[b]).

Consistent with State CEQA Guidelines Section 15130, the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. Section 15130(b) of the State CEQA Guidelines provides, in part, the following:

[t]he discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.

A proposed project is considered to have a significant cumulative effect if:

- ▶ the cumulative effects of development without the project are not significant and the project’s additional impact is substantial enough, when added to the cumulative effects, to result in a significant impact; or
- ▶ the cumulative effects of development without the project are already significant and the project contributes measurably to the effect.

The term “measurably” is subject to interpretation. The standards used herein to determine measurability are that the impact must be noticeable to a reasonable person, or must exceed an established threshold of significance (defined throughout the resource sections in Chapter 4 of this Draft EIR).

5.2 CUMULATIVE SETTING

5.2.1 Geographic Scope

The geographic area that could be affected by the project and is appropriate for a cumulative impact analysis varies depending on the environmental resource topic, as presented in Table 5-1.

Table 5-1 Geographic Scope of Cumulative Impacts

Resource Topic	Geographic Area
Land Use	State's Capitol Area, as defined in the Capitol Area Plan, Central City of the City of Sacramento, as defined by the 2035 General Plan and Central City Community Plan
Transportation and Circulation	City of Sacramento and Sacramento region
Utilities and Infrastructure	City of Sacramento
Air Quality	Sacramento Valley Air Basin (regional) and immediate project vicinity for highly localized pollutant emissions
Greenhouse Gas Emissions and Climate Change	Global, statewide
Energy	City of Sacramento and Sacramento region
Noise	Immediate project vicinity where project-generated noise could be heard concurrently with noise from other sources
Geology and Soils	City of Sacramento, Central City
Hydrology and Water Quality	Sacramento River watershed
Hazardous Materials and Public Health	City of Sacramento, Central City
Archaeological, Historical, and Tribal Cultural Resources	City of Sacramento (historic period resources) Portions of Central Valley identified as the territory of the local Native American community (prehistoric archaeological resources and tribal cultural resources)
Biological Resources	Can be defined differently for each species, based on species distribution, habitat requirements, and scope of impact from proposed activities
Public Services and Recreation	City of Sacramento
Aesthetics, Light, and Glare	City of Sacramento, Central City, within the viewshed of the project

Source: Compiled by Ascent Environmental in 2019

5.2.2 Cumulative Context

The City of Sacramento was founded in 1849 along the Sacramento River waterfront and extended east along J Street toward Sutter's Fort. The city's current charter was adopted by voters in 1920, establishing a city council-and-manager form of government, still used today. The city expanded continuously over the years in the first half of the 1900s and in 1964 merged with the city of North Sacramento, just north of the American River. Large annexations were made of the Pocket area on the south and Natomas area on the north. Sacramento currently covers a total area of approximately 99 square miles (City of Sacramento 2015a).

Even with the City's annexations and population growth, there remain substantial areas of land in North Natomas, North Sacramento, South Sacramento, and the Airport Meadowview planning areas that are undeveloped or lightly developed. In addition to these outlying areas, there are significant redevelopment areas in the City core, such as the Railyards, Richards Boulevard, and Docks areas, that are targeted for new higher density development (City of Sacramento 2015b).

Population in the City of Sacramento has increased substantially since 2000, from about 407,000 in 2000 (U.S. Census Bureau 2001) to an estimated 508,172 in 2019 (California Department of Finance 2019). Population growth in the city is projected to continue between 2020 and 2035, and most growth is expected to occur in the Central City (City of Sacramento 2013:H 3-6). City of Sacramento population projections indicate that the city may have about 640,000 residents by 2035, an increase of approximately 131,800 residents, representing approximately 21 percent of the region's total population (City of Sacramento 2013:H 3-6).

On a broad geographic basis, the Sacramento metropolitan area as a whole is facing numerous regional issues pertaining to degradation of air quality, traffic generation, loss of biological habitat, loss of farmland, and other environmental changes related to urban expansion. In response to these concerns, the City's 2035 General Plan

favors developing inward, in and near existing developed areas, rather than outward into greenfields on the edge of the city. The General Plan growth pattern focuses on infilling and reusing underutilized properties, intensifying development near transit and mixed-use activity centers, and locating jobs closer to housing. The General Plan includes policies to reduce carbon emissions, including encouraging mixed-use development that supports walking, biking, and use of public transit; “green building” practices; and use of solar energy systems, architectural design to reduce heat gain, recycled construction materials, and water conservation measures (City of Sacramento 2015b).

The project site is located within the Central Business District (CBD) of the Central City Community Plan area, which is the core of the City of Sacramento (City of Sacramento 2014). The CBD is identified in the City’s 2035 General Plan as a Priority Investment Area (PIA). PIAs are areas of the city that are the highest priority for investment and development through infill, reuse, or redevelopment. The CBD is an urban downtown area that includes the State Capitol, State government buildings, corporate offices and businesses, high-rise condominiums, historic neighborhoods, parks and recreational areas, restaurants and shops, schools, and industrial and manufacturing complexes all within a tree-lined street grid. The City’s Housing Element estimated that the Central City Community Plan area had 32,367 residents in 2010 and projected that by 2035, the area will have a total of 109,312 residents (City of Sacramento 2013:H 3-5 and H 3-6).

The State’s Capitol Area Plan (CAP), the statutory master plan for development on State-owned land surrounding the State Capitol (within the City’s Central City Community Plan area), also encourages moving offices within and using the existing resources of the Capitol Area (DGS 1997). The CAP boundary is shown in Figure 4.2-1. The CAP speaks to increased energy conservation and use of the transit system in the Capitol Area, and suggests examination of underutilized State properties. As described under “Land Use” in Section 4.2 of this EIR, the project site is designated as “Parks and Open Space” and “Other Existing Use” in the State’s CAP (DGS 1997).

5.2.3 Regional Planning Environment

The Capitol Annex Project involves renovation of a State-owned site within the Capitol Area (addressed by the State’s CAP) and within the CBD PIA (addressed by the City’s 2035 General Plan and Central City Community Plan). For this reason, the area most relevant to cumulative impacts is the Central City area of Sacramento. The following plans establish and assess the land use pattern and goals for development and growth in the Central City:

- ▶ 1997 Capitol Area Plan (DGS 1997);
- ▶ Capitol Area Plan EIR, certified in 1997;
- ▶ Capitol Area Plan Progress Report (DGS 2015);
- ▶ Sacramento Central City Community Plan, adopted March 3, 2015;
- ▶ Master EIR: City of Sacramento 2035 General Plan Update, certified 2015 (SCH No. 2012122006); and
- ▶ Sacramento Area Council of Governments (SACOG) Metropolitan Transportation Plan/Sustainable Communities Strategy (MTP/SCS) EIR, certified 2016 (SCH No. 2014062060) (SACOG 2016).

These documents were relied upon in preparing the cumulative impact analysis and are available for review at the California Department of General Services, Real Estate Services Division, Environmental Services Section, 707 Third Street, Third Floor, West Sacramento, CA 95605.

5.2.4 Related Projects

The following analysis of cumulative impacts relies primarily on the plans for land use and growth in downtown Sacramento, as listed in above in Section 5.2.3. This is consistent with Section 15130(d) of the State CEQA Guidelines, which states, “Previously approved land use documents, including, but not limited to, general plans, specific plans, regional transportation plans, plans for the reduction of greenhouse gas emissions, and local coastal plans may be used in cumulative impact analysis.”

This analysis also considers related projects, or those large past, present, and probable future projects located in downtown Sacramento that could relate to the project. This approach is consistent with Section 15130(b)(1)(A) of the State CEQA Guidelines, which states that a discussion of significant cumulative impacts may include “[a] list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency...” Past projects are those already constructed and operational that are considered as part of the existing baseline conditions, such as the Golden 1 Center (at 5th Street between J and L Streets), the State’s Central Heating and Cooling Plant (between 6th and 7th Streets and P and Q Streets), and others. The probable future projects considered herein are those in the project vicinity that are reasonably foreseeable, meaning known projects that are planned, proposed, or approved. The analysis of cumulative environmental impacts associated with the project addresses the potential incremental impacts of the proposed project in combination with the related projects. This is not an all-inclusive list of projects in the region. Rather, it identifies projects approved or planned in downtown Sacramento that, based on the nature of environmental resources being examined, location, and project type, have the potential to interact on a cumulative basis with the proposed project. Each of the following projects is of substantial size, could generate or exacerbate many of the environmental effects being examined for the Capitol Annex Project, and are located in the general vicinity of the project.

Section 15130(b) of the State CEQA Guidelines provides that a cumulative impact analysis consider either a list of projects (the list approach) or relevant plans and planning documents (the plan approach). The following cumulative impact analysis exceeds the requirements of Section 15130(b) by implementing a plan approach and supplementing the analysis with a modified list approach. This combined approach ensures that the projects likely to have the greatest cumulative interaction with the proposed project are considered.

STATE OF CALIFORNIA

10th and O Street Office Building

The 10th and O Street Office Building Project, currently under construction, involves demolition and removal of the existing asphalt parking lots and some ornamental trees (including City street trees) and construction of a new office building. The building will consist of up to 490,000 gross square feet (GSF) of office space, plus some limited parking. It will have a maximum height of 150 feet and a proposed occupancy of up to 2,200 staff. It is anticipated that staff occupying the 10th and O Street office building will be the State legislature and executive branch, and staff, staff from other leased space in the region, and/or from one or more other State-owned buildings slated for eventual renovation and upgrade. In accordance with State policy, the building will be zero net energy facility. Electricity will be provided by Sacramento Municipal Utility District (SMUD), pursuant to a contract between SMUD and the State requiring that electricity provided to State buildings be from 100 percent renewable sources.

1215 O Street Office Building Project - Clifford L. Allenby Building

The Clifford L. Allenby Building at 1215 O Street, currently under construction, involves demolition of the existing vacant California Department of Food and Agriculture Annex building located on the southwestern portion of the block bounded by O and N Streets and 12th and 13th Streets and construction of a new approximately 300,000 to 350,000 GSF office building. The new building will be up to 11 stories tall, not exceeding 150 feet in height. In addition, the surface parking lot across O Street from the office building site is being used as a temporary construction staging area during construction of the new office building. Once construction of the new office building is complete, this parking lot will be repaved, parking spaces painted. The purpose of the new 1215 O Street Office Building is to consolidate and upgrade State office space in the region, specifically to vacate the existing Gregory Bateson building located at 1600 9th Street. Vacating the existing at Bateson Building will allow the eventual renovation and re-occupation of that building (see below). This project will also include ground-level commercial space and would be connected to the State-owned Central Plant for heating and cooling. In accordance with State policy, the building will be zero net energy facility; electricity will be provided by SMUD from 100 percent renewable sources.

Renovation and Reoccupation of the Gregory Bateson Building

Construction of the 1215 O Street Office Building Project will allow the existing Gregory Bateson Building (Bateson Building) to be vacated, facilitating its restoration and reoccupation. The Gregory Bateson Building Renovation Project, proposed by DGS and under environmental review as of September 2019, would address building-wide deficiencies, including: fire and life safety improvements; hazardous materials removal; repairs and water intrusion prevention detailing of exterior facades and their components; updates and repairs for disabled accessibility compliance; applicable reinstatement of energy systems and enhancements; addition of high-tech heating, ventilation, and air conditioning (HVAC) and lighting controls; addition of security systems and procedures controlling movement within the building and between spaces; security officer station, physical barriers at west entrance; and improvement of interior spaces by replacement of finishes, etc. that are at the end of their useful life. The building is in need of a major renovation to ensure the safety and comfort of the tenants, and to avoid falling into an irreversible state of disrepair. Because of the building's historic designation, the proposed renovations would be designed to be consistent with the building's historic character while correcting the critical fire and life safety issues and other code deficiencies. The project goal is to achieve Zero Net Energy and Leadership in Energy and Environmental Design (LEED) Silver certification.

The current occupants, the Health and Human Services Agency, Department of Developmental Services, and Department of State Hospitals, would be relocated to the new Clifford L. Allenby Building at 1215 O Street (currently under construction, as described above) in March 2021. Proposed tenants of the renovated Gregory Bateson Building include California Natural Resources Agency departments from downtown leased space that are not consolidating into the New Natural Resources Agency Headquarters Building (see P Street Office Building Project, below, also currently under construction). The new tenants would move into the building in the spring of 2024.

Resources Building Replacement Project (P Street Office Building Project)

The Resources Building Replacement Project (also referred to as the P Street Office Building Project), currently under construction, involves demolition of an existing surface parking lot and construction of a new office building on the block bounded by O and P Streets and 7th and 8th Streets to accommodate approximately 800,000 gross square feet of office space, plus limited parking. The purpose of the new construction is to consolidate and upgrade State office space in the region, specifically to vacate the existing Resources Building, located at 1416 9th Street (on the southern half of the block between 8th and 9th Streets and N and O Streets). Vacating the existing Resources Building will allow the eventual renovation and reoccupation of that building (see below). Development of the new office building maintains the historic Heilbron House in its current location. This project includes ground-level commercial space and will be connected to the State-owned Central Plant for heating and cooling. The project goal is to achieve Zero Net Energy and LEED Silver certification.

Renovation and Reoccupation of the Resources Building

Construction of the Resources Building Replacement Project, which is underway, will allow the existing Resources Building to be vacated, facilitating its restoration and eventual reoccupation. It is reasonably foreseeable that the building at this location would continue to serve as a State office building with similar massing and occupancy. Therefore, for purposes of this cumulative analysis, it is assumed that in the future, the Resources Building site would undergo some of renovation, resulting in a similar sized office building able to accommodate approximately 2,300 employees.

Renovation and Reoccupation of the Jesse M. Unruh Building

Renovation of the Jesse M. Unruh Building, proposed by DGS and under environmental review as of September 2019, would renovate and restore the approximately 164,600 GSF building located at 915 Capitol Mall in downtown Sacramento. The building is in need of a major renovation to ensure the safety and comfort of the tenants, and to avoid falling into an irreversible state of disrepair. Because the building is a contributor to the Capitol Extension Historic District, the proposed renovations would be designed to be consistent with the building's historic character, as well as correct the critical fire and life safety issues and other code deficiencies. The project would include removal of hazardous materials; upgrades to fire and life safety; renovations to meet current Americans with Disabilities Act codes and requirements; replacement of mechanical, electrical, and plumbing systems; replacement of non-historic

walls and architectural finishes; replacement and restoration of windows and skylights; replacement of elevators; installation of a new stairwell; removal of the Capitol Fountain; and other site work. The building would be vacant during construction and employees in the building would return after construction is complete. The project goal is to achieve Zero Net Energy and LEED Silver certification.

Richards Boulevard State Office Complex

The Richards Boulevard State Office Complex project proposes construction of a new office campus on a 17-acre state-owned site at Richards Boulevard and North 7th Street in the River District Specific Plan area of the City of Sacramento. The site currently supports the State Printing Plant, Textbook Warehouse, and associated facilities which are slated for demolition. The project would include 1.3 million square feet of office space in three five-story, mid-rise office buildings, and a 24-story, high-rise office building consisting of a five-floor podium and 24-story office tower. The project would also include a five-level parking garage and additional surface parking, off-site utility improvements, and space for a cafeteria, an auditorium, and childcare facilities. The project goal is to achieve Zero Net Energy and LEED Silver certification.

CITY OF SACRAMENTO

Sacramento Commons Phase I

Phase I of the Sacramento Commons, which has been approved and is under construction, will involve construction of two seven-story midrise buildings with apartments, live-work units, open space terraces, retail spaces, and enclosed parking. The project is within the approved Sacramento Commons Planned Unit Development, with Phase I at the intersection of 5th and O Streets. The entire Sacramento Commons Planned Unit Development site totals approximately 11.17 acres and is bounded by 5th and 7th Streets and N and P Streets.

The Railyards Project

The Railyards property is located just north of downtown and south of the River District. Once serving as the western terminus of the 1860s Transcontinental Railroad, today the Railyards continue to house a major transportation hub. The 244-acre Railyards site will be a mixed-use hub for entertainment, retail, housing, office, theaters, parks, hotels, and museums

The original Sacramento Railyards project was approved by the City Council on December 11, 2007. The project involved the development of a maximum of 12,100 dwelling units, 1.4 million square feet of retail uses, 1,100 hotel rooms, 2.4 million square feet of office uses, 485,390 square feet of historic/cultural space, and 491,000 square feet of mixed use. A subdivision modification for minor changes was approved by the Planning and Design Commission in 2012. The changes included revising sections of 5th Street and 7th Streets to slow two-way traffic; changing the alignment of 5th and 6th Streets; and revising the tentative map to reflect the realignment and to accommodate a parking garage. In 2016, the City Council approved planning entitlement for:

- ▶ 6,000–10,000 dwelling units,
- ▶ 514,270 square feet of retail,
- ▶ 2,757,027–3,857,027 square feet of office use,
- ▶ 771,405 square feet of flexible mixed use,
- ▶ 1,228,000 square feet of medical campus,
- ▶ 1,100 hotel rooms,
- ▶ 485,390 square feet of historic and cultural uses,
- ▶ 33 acres of open space, and
- ▶ a soccer stadium with 19,621 seats and potential to expand to approximately 25,000 seats

West Broadway Park Specific Plan

The West Broadway Park Specific Plan area is generally bounded by the Sacramento River on the west, Broadway on the north; Muir Way and 5th Street on the east; and 4th Avenue on the south. The 279-acre project area includes the Northwest Land Park Planned Unit Development area, an infill project (under construction) known as The Mill at Broadway; Alder Grove Public Housing Community and Marina Vista Public Housing community; William Land Woods Affordable Housing Community; Leataata Floyd Elementary School; Health Professionals High School; approximately 32 acres of existing industrial land uses; Miller Regional Park and the Sacramento Marina. The West Broadway Park Specific Plan will include land use regulations and policies, and will identify necessary public improvements to support new urban development. The anticipated development will be consistent with the framework of the General Plan which anticipates a mix of traditional and urban scale housing with neighborhood commercial uses.

I Street Bridge Replacement over the Sacramento River

In 2011, the Cities of Sacramento and West Sacramento identified the need for new bridge crossings and replacement of the existing I Street Bridge. The existing I Street Bridge is 100 years old. Because of this, the lanes are too narrow to serve buses, there are no bicycle lanes, and sidewalks are too narrow to meet accessibility standards. The I Street Bridge Replacement project will include construction of a new bridge upstream of the existing structure. The new bridge will cross the Sacramento River between the Sacramento Railyards and the West Sacramento Washington planned developments and provide a new bicycle, pedestrian, and automobile crossing. The existing I Street Bridge would continue to be used by the railroad. The approach viaducts to the existing I Street Bridge will be demolished, which should result in better access to the waterfront in both cities.

City of Sacramento Central City Specific Plan

The City of Sacramento's Central City Specific Plan integrates a number of planned transportation improvements and programs to further enhance the downtown grid. The future infrastructure improvements include but are not limited to:

- ▶ 10th Street, 15th Street, and L Street lane reduction from 3 lanes to 2 lanes;
- ▶ N Street conversion from an eastbound 1-Way vehicle travel to 2-Way vehicle travel;
- ▶ Pedestrian network improvements within the vicinity of the project site;
- ▶ Class II Enhanced Buffered Bike Lane along 10 Street and 15th Street, Class II Bike Lane along N Street, the existing Class II Bike Lane bisecting Capitol Park; and
- ▶ Bus Stop enhancements on 15th Street.

5.3 ANALYSIS OF CUMULATIVE IMPACTS

The following sections describe the cumulative effects anticipated from implementation of the Capitol Annex Project, together with related projects and planned development downtown, for each of the environmental issue areas evaluated in this Draft EIR. The analysis conforms with Section 15130(b) of the State CEQA Guidelines, which specifies that the "discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

When considered in relation to other reasonable foreseeable projects, cumulative impacts to some resources would be significant and more severe than those caused by the proposed project alone.

For purposes of this EIR, the project would result in a significant cumulative effect if:

- ▶ the cumulative effects of related projects (past, current, and probable future projects) are not significant and the incremental impact of implementing the Capitol Annex Project is substantial enough, when added to the cumulative effects of related projects, to result in a new cumulatively significant impact; or

- ▶ the cumulative effects of related projects (past, current, and probable future projects) are already significant and implementation of the Capitol Annex Project makes a considerable contribution to the effect. The standards used herein to determine a considerable contribution are that either the impact must be substantial or must exceed an established threshold of significance.

This cumulative analysis assumes that all mitigation measures identified in Chapter 4 to mitigate project impacts are adopted and implemented, and all elements of the design-build performance criteria that would minimize environmental effects are implemented. The analysis herein analyzes whether, after implementation of project-specific mitigation and performance criteria that minimize environmental effects, the residual impacts of the project would cause a cumulatively significant impact or would contribute considerably to existing/anticipated (without the project) cumulatively significant effects.

5.3.1 Land Use

The State's CAP establishes land uses for State-owned land, and the City of Sacramento 2035 General Plan and Central City Community Plan establish those for the city. Consistency with applicable land use plans or policies adopted for the purpose of reducing or avoiding environmental impacts are site specific and addressed on a project-by-project basis. Several of the related projects described in Section 5.2.4, above, are proposed on infill sites within the Central City Community Plan area; the State projects are also within the CAP boundaries. The related projects are, to the extent that proposed land uses have been identified, apparently consistent with land use plans and policies. Implementing the related projects would not disrupt or divide established communities in the project vicinity; rather, it would involve developing sites or improving existing buildings within the Central City Community Plan area consistent with the State's CAP and the City's 2035 General Plan. In particular, the State's Resources Building Replacement Project and the 10th and O Office Building Project are consistent with the CAP by developing underutilized space, existing surface parking lots, within downtown. Therefore, there is not an adverse cumulative land use condition.

No part of the Capitol Annex Project would extend beyond the existing urban boundaries of the CAP or the CBD, located within the Central City Community Plan Area, in downtown Sacramento, and no element of the project would create a barrier within the established downtown community. The project would be compatible with surrounding land uses and would neither result in nor contribute to a cumulative impact regarding the potential division of an established community. In addition, the project would be consistent with the CAP, the CAP Implementation Plan, the 2015 CAP Progress Report, and local plans and policies. Because no land use impacts would occur on a project-specific basis, the project would not contribute to any potential cumulative land use impacts.

5.3.2 Transportation and Circulation

This cumulative transportation and circulation impact analysis relies on existing and future development accommodated under the City's 2035 General Plan and Central City Specific Plan, which is included in regional travel demand modeling. The geographic focus of this cumulative analysis is the study area and intersections previously identified in Section 4.3, "Transportation and Circulation," and identified in Figure 4.3-1 of this Draft EIR.

TRAFFIC FORECASTS

The most recent version of the SACMET regional travel demand model developed and maintained by SACOG was used to forecast cumulative (year 2036) traffic volumes within the study area. The cumulative version of this model accounts for planned land use growth within the City of Sacramento according to the City's 2035 General Plan, as well as within the surrounding region. The SACMET model also accounts for planned improvements to the surrounding transportation system, including improvements identified in the City's "Grid 3.0" plan for the Central City (also included in the Central City Specific Plan), and incorporates the current MTP/SCS for the Sacramento region. The version of the model used to develop the forecasts was modified to include the most recent planned land uses

and transportation projects within the City of Sacramento. Modifications to the model included additional transportation network and land use detail within the study area to improve accuracy.

A forecasting procedure known as the "difference method" was used to develop the Cumulative-No-Project and Cumulative-Plus-Project forecasts. This method accounts for potential differences between the base year model and existing traffic counts that could otherwise transfer to the future year model and traffic forecast.

This forecasting procedure is calculated as follows:

$$\text{Cumulative Traffic Forecast} = \text{Existing Count Volume} + (\text{Cumulative Model Forecast} - \text{Base Year Model Forecast})$$

INTERSECTION OPERATIONS

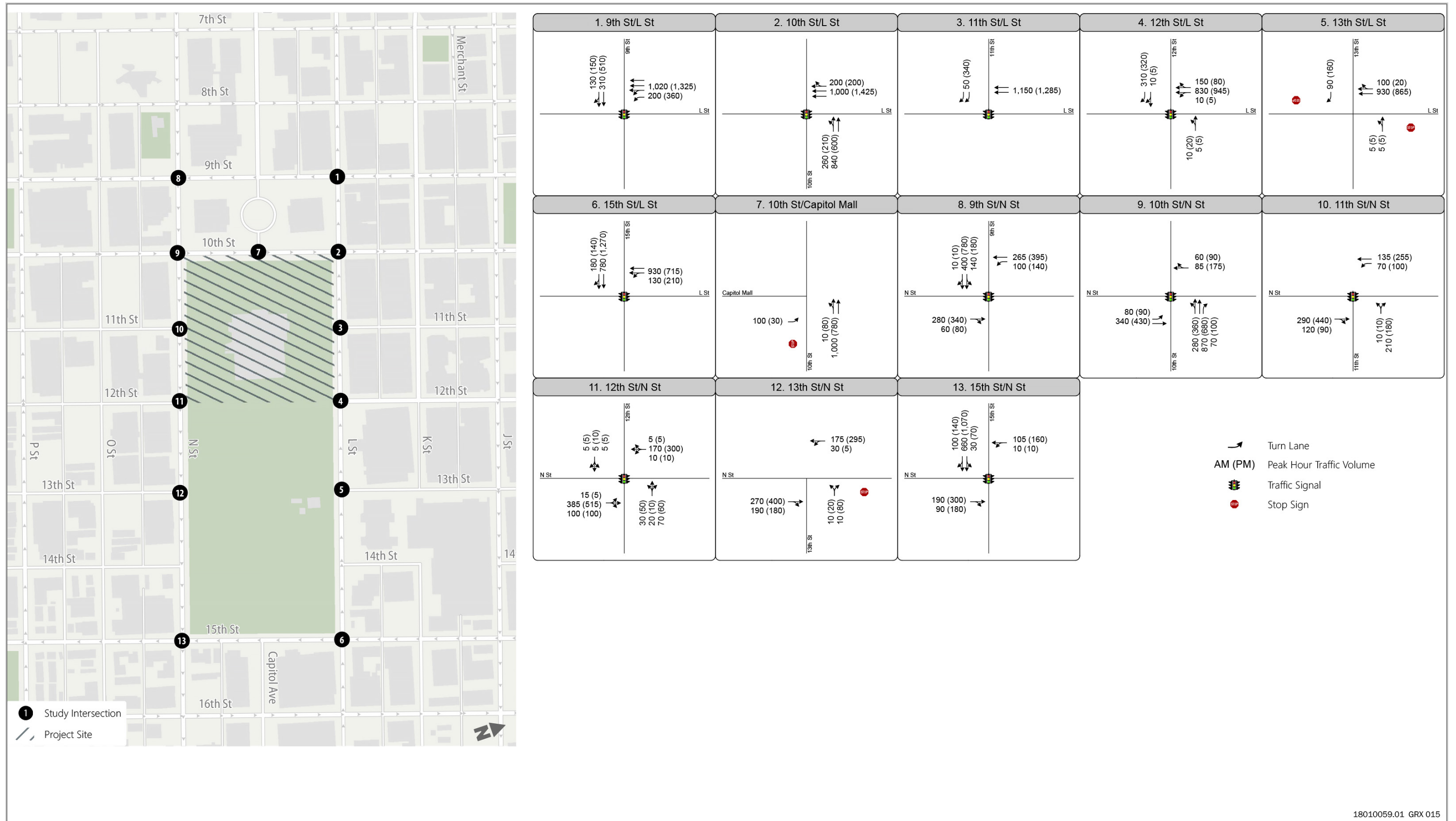
Cumulative-No-Project traffic volumes were determined following the traffic forecasting methodology previously presented. Cumulative-Plus-Project traffic volumes were estimated by adding the project trips to the Cumulative-No-Project volumes. Figure 5-1 displays the a.m. and p.m. peak hour intersection traffic volumes under Cumulative-No-Project conditions, and Figure 5-2 displays the a.m. and p.m. peak hour intersection traffic volumes under Cumulative-Plus-Project conditions.

Table 5-2 shows the peak-hour intersection operations at the study intersections (refer to Appendix C for technical calculations) under Cumulative-No-Project and Cumulative-Plus-Project conditions.

Under both Cumulative-No-Project and Cumulative-Plus-Project conditions study intersections on L Street experience the most congestion. LOS ranges from C to F during the p.m. peak hour. The remaining study intersections operate at LOS C or better.

When measured against the significance criteria for effects to intersections, the Capitol Annex Project would not substantially degrade peak period roadway system operation, nor would cumulative traffic create conditions inconsistent with General Plan Policy M 1.2.2. As discussed in Section 4.3, "Transportation and Circulation," the City's policy was adopted to allow decreased levels of service (i.e., LOS F) in the urbanized Core Area of the City that supports more transportation alternatives and places residents proximate to employment, entertainment, retail and neighborhood centers and thus reduces overall vehicle miles traveled and results in environmental benefits (e.g., improved air quality and reduced GHG emissions). Based on this evaluation, the City determined that LOS F is considered acceptable during peak hours within the Core Area. Because cumulative traffic would not substantially degrade roadway operations nor conflict with City General Plan policy, cumulative impacts would be less than significant, and therefore the project would not contribute considerably to a significant cumulative impact.

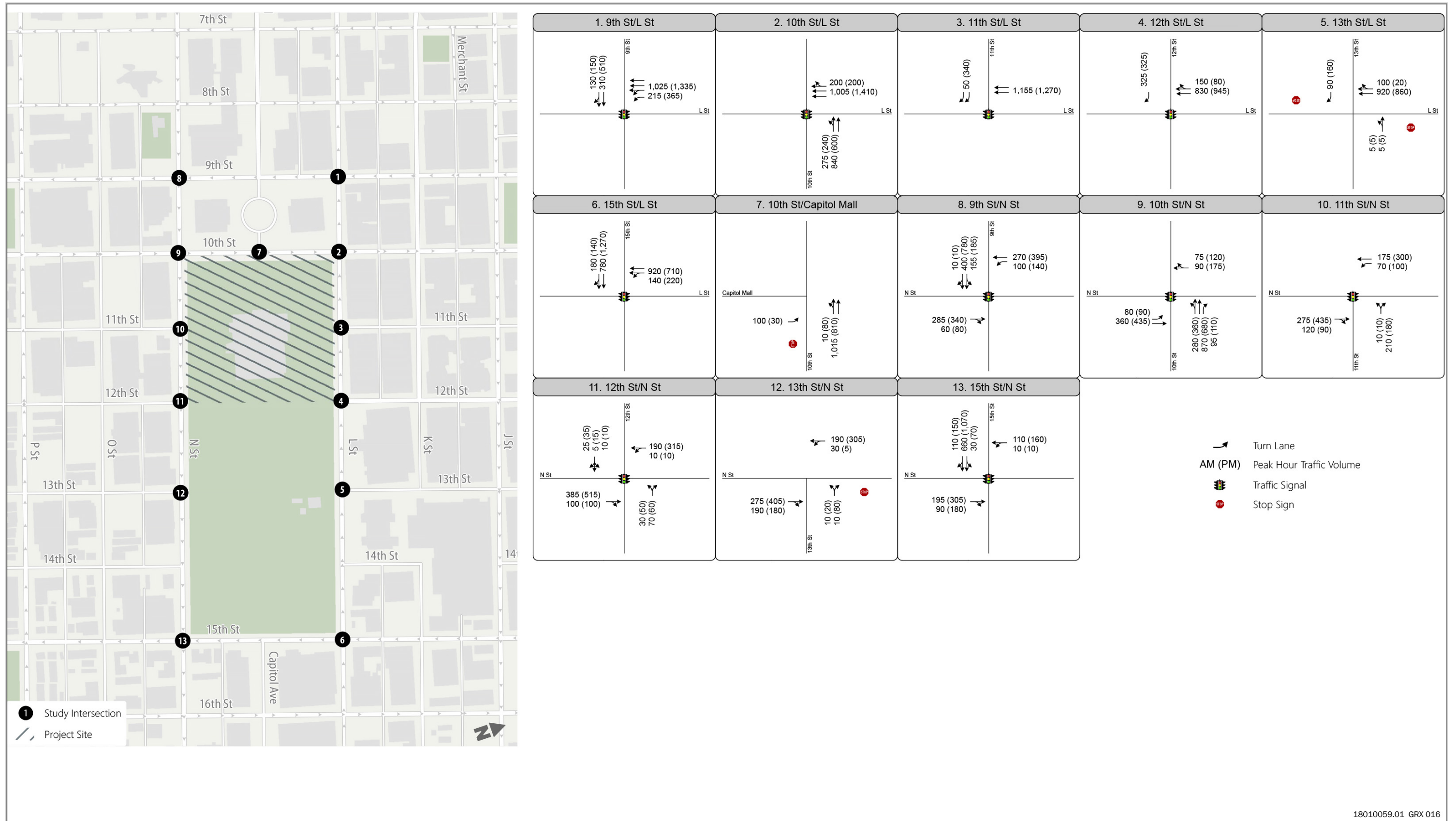
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18010059.01 GRX 015

Source: Figure provided by Fehr & Peers in 2019

Figure 5-1 Peak-Hour Traffic Volumes and Lane Configurations – Cumulative-No-Project



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Source: Figure provided by Fehr & Peers in 2019

Figure 5-2 Peak Hour Traffic Volumes and Lane Configurations – Cumulative-Plus-Project

Table 5-2 Intersection Operations – Cumulative-No-Project and Cumulative-Plus-Project Conditions

Intersection	Traffic Control	Peak Hour	Cumulative-No-Project Conditions Delay ¹	Cumulative-No-Project Conditions LOS	Cumulative-Plus-Project Conditions Delay ¹	Cumulative-Plus-Project Conditions LOS
1. 9th St/L St	Signal	a.m. p.m.	12 65	B E	12 67	B E
2. 10th St/L St	Signal	a.m. p.m.	14 52	B D	13 50	B D
3. 11th St/L St	Signal	a.m. p.m.	23 64	C E	26 61	C E
4. 12th St/L St	Signal	a.m. p.m.	20 100	B F	15 100	B F
5. 13th St/L St	SSSC	a.m. p.m.	7 (16) 61 (64)	A (C) F (F)	6 (15) 58 (110)	A (C) F (F)
6. 15th St/L St	Signal	a.m. p.m.	9 24	A C	9 24	A C
7. 10th St/Capitol Mall	SSSC	a.m. p.m.	3 (12) 2 (10)	A (B) A (B)	2 (10) 2 (8)	A (B) A (A)
8. 9th St/N St	Signal	a.m. p.m.	13 15	B B	13 15	B B
9. 10th St/N St	Signal	a.m. p.m.	15 15	B B	15 15	B B
10. 11th St/N St	Signal	a.m. p.m.	13 17	B B	12 13	B B
11. 12th St/N St	Signal	a.m. p.m.	9 11	A B	9 12	A B
12. 13th St/N St	SSSC	a.m. p.m.	2 (8) 5 (14)	A (A) A (B)	2 (7) 5 (22)	A (A) A (C)
13. 15th St/N St	Signal	a.m. p.m.	14 35	B D	15 31	B C

Notes: LOS = Level of Service. SSSC = Side-Street Stop-Controlled

¹ For signalized intersections, average intersection delay is reported in seconds per vehicle for all approaches. For SSSC intersections, the LOS and control delay for the worst movement is shown in parentheses next to the average intersection LOS and delay. Impacts to intersections are determined based on the overall LOS and average delay. Intersection LOS and delay is calculated based on the procedures and methodology contained in the Highway Capacity Manual, 6th Edition (Transportation Research Board 2016). All intersections were analyzed in SimTraffic.

Source: Data provided by Fehr & Peers in 2019

VEHICLE MILES TRAVELED

Per SB 743 and more specifically, Public Resource Code Section 21155.4, the Capitol Annex Project is exempt from vehicle miles travelled (VMT) analysis based on the following:

- 1) The Capitol Annex is located within a Transit Priority Area, as defined in subdivision (a) of Public Resource Code Section 21099, as it is located within one-half mile of an existing major transit stop.
- 2) The project is undertaken to implement and is consistent with the intent of the Central City Specific Plan and the Central City Specific Plan Environmental Impact Report, which was certified on April 19, 2018.
- 3) The project is consistent with the general use designation, density, building intensity, and applicable policies specific for the project area identified in the 2016 SACOG MTP/SCS, which identifies the project area as a higher density major employment center.

Additionally, the project does not require further project-specific analysis of VMT for the purposes of CEQA compliance per the Central City Specific Plan. With implementation of the Central City Specific Plan, the study area average VMT per employee is 77 percent of the existing countywide average, which is below the 85 percent threshold used to identify significant impacts (City of Sacramento 2018). Since the average VMT per employee does not exceed 85 percent of the existing countywide average calculated by SACOG, the impact would not be cumulatively considerable. Implementation of the Central City Specific Plan, including all consistent land use development and transportation improvements, would have no significant impact on per-employee VMT in the Central City Specific Plan area, and would not require further project-specific analysis of VMT for the purposes of CEQA compliance. No significant VMT impact would result and, therefore, the project would not result in a cumulatively considerable contribution to such an impact.

TRANSIT, BICYCLE, AND PEDESTRIAN FACILITIES

The State's CAP and the City of Sacramento General Plan growth pattern focuses on infill and reuse of underutilized properties, intensifying development near transit and mixed-use activity centers, and locating jobs closer to housing. The General Plan includes policies to reduce carbon emissions that contribute to climate change, including encouraging mixed-use development that supports walking, biking, and use of public transit. The downtown area provides sidewalks for pedestrian access, bicycle routes, and transit services that include Regional Transit light rail and numerous bus lines. Grid 3.0 and the Central City Specific Plan identifies additional planned improvements to the downtown Sacramento transit, bicycle, and pedestrian facilities to increase the use of non-motorized transportation modes for downtown residents, employees, and visitors, including new employees working at the project site.

As described under Existing-Plus-Project conditions (Section 4.3.1), the project would not generate additional transit, bicycle, or pedestrian trips. Therefore, the project would not contribute additional trips to the cumulative condition and the project would have a less than significant cumulative impact on transit, bicycle, and pedestrian facilities.

CONSTRUCTION TRAFFIC

The reasonably foreseeable projects in downtown Sacramento would result in construction vehicle trips that could overlap with construction of the Capitol Annex Project as well as roadway disruptions in downtown. Although temporary, because of the magnitude of the projects, duration of construction, and the number of roadways affected, the cumulative construction-related traffic increases and potential roadway impacts would be cumulatively significant.

Construction traffic impacts for the Capitol Annex would be localized, affecting N Street, L Street, and 10th Street in downtown Sacramento, and temporary. However, project construction activity would necessitate restriction or redirection of pedestrian, bicycle, and vehicular movements and loss of street parking around the site to accommodate construction staging, material hauling, material staging, modifications to utility connections, and movement of State personnel between the Historic Capitol and the 10th and O Street Office Building. In accordance with Section 12.20.20 of the Sacramento City Code, JRC and DGS or their contractor would prepare and implement a Construction Traffic Management Plan that meets with the approval of the City Traffic Engineer. The Traffic Management Plan would be designed to ensure acceptable operating conditions on local roadways and would reduce the project's temporary impact to the degree feasible. Therefore, the project would result in a less than considerable contribution to the cumulative construction traffic impacts.

5.3.3 Utilities and Infrastructure

As indicated in Section 4.4, "Utilities and Service Systems," the project would generate less-than-significant impacts associated with all utility and infrastructure issues, including demands for water supply and delivery infrastructure, stormwater flows, increased demand for wastewater treatment and conveyance infrastructure, and increased demands for electricity and natural gas. In terms of cumulative impacts, the City of Sacramento is responsible for ensuring that water, wastewater, and stormwater conveyance are adequately provided within its jurisdictional boundaries and that development within the city limits can be adequately served by electrical and natural gas

providers. The Sacramento 2035 General Plan identifies goals and policies associated with providing water, wastewater, and stormwater conveyance; electricity; and natural gas to new development.

WATER

The City of Sacramento 2015 Urban Water Management Plan was prepared using information about planned growth included in the Sacramento 2035 General Plan. As shown in Table 4.4-3 of this EIR, there are sufficient water supplies to meet existing and future demand associated with population and development growth in the city through 2040, including during normal, single-dry, and multiple-dry years. The cumulative water supply condition is therefore less than significant. In addition, there is sufficient water supply for the project and for buildout of the city through 2040; therefore, the project would have a less-than significant cumulative impact on water supply.

It is assumed that the development of related projects served by the City's water system, and development of additional utility systems required to serve them, would be preceded by the required CEQA review. Additionally, in consultation with the City, individual projects are required to provide adequate facilities or pay their fair share of the cost for facilities needed to provide services to accommodate growth without adversely affecting current service levels. Development of the project could require construction of water delivery infrastructure improvements. However, as described in Section 4.4, "Utilities and Service Systems," although the Capitol Annex Project would implement water conservation features for the building and landscaping, it is conservatively assumed that the project's water demand would not change from current conditions. The continued combined average water demand at the project site (for commercial and irrigation water) of 40.02 acre-feet per year would represent 0.05 percent of the City's existing available water supply and 0.01 percent of the projected water supply. The City would continue to have adequate water supply to serve commercial and irrigation water to the Capitol Annex Project. Therefore, significant cumulative utilities impacts related to adequacy of water supplies and water delivery infrastructure would not occur and implementing the project would not result in a considerable contribution to cumulative water supply or delivery infrastructure impacts.

WASTEWATER

Stormwater/Wastewater Conveyance Facilities

Although stormwater runoff and wastewater flows would not increase over existing conditions, the City's combined sewer system (CSS) does not have sufficient capacity to treat wastewater and stormwater during storm events. The City has identified flooding during large storm events in the project vicinity (City of Sacramento 2018), which represents an existing adverse cumulative condition. It is assumed that the development of related projects served by the CSS, and that development of additional utility systems required to serve them, would be preceded by the required CEQA review. There is capacity for the project's wastewater flows during dry weather, and the project would include water conservation measures that exceed 2016 Title 24 water efficiency requirements and meet LEED v4 Silver standards (all plumbing fixtures in the building would be low-flow/high-efficiency fixtures), which would further reduce wastewater flows. Furthermore, the City is implementing the Combined Sewer System Improvement Plan (CSSIP) to make improvements throughout the system, and JRC and DGS would coordinate with the City to determine appropriate Combined Sewer Development Fees for replacement of wastewater and stormwater infrastructure. Therefore, the project would not result in a considerable incremental contribution to the adverse cumulative impact.

Wastewater Treatment Facilities

Wastewater generated by the Capitol Annex Project would not increase over existing conditions and would continue to be treated at the Sacramento Regional Wastewater Treatment Plant (Regional San WWTP). The City of Sacramento and the Sacramento Regional County Sanitation District have an operating agreement that allows the City to convey up to 60 million gallons per day (mgd) to the Regional San WWTP. When flows exceed 60 mgd, wastewater in the CSS is conveyed to the Combined Wastewater Treatment Plant (CWTP) and Pioneer Reservoir for treatment and storage, if needed, before being discharged to the Sacramento River. Currently, the City conveys about 18 mgd to the

Regional San WWTP, so there would be sufficient capacity to treat wastewater from the proposed project in addition to other similar projects during dry weather. However, there is currently insufficient capacity in the CSS wastewater treatment plants to treat wastewater during peak storm events. This is considered a cumulatively adverse condition. It is assumed that the development of related projects served by the Regional San WWTP, CWTP, and Pioneer Reservoir, and that development of additional utility systems required to serve them, would be preceded by the required CEQA review. Additionally, individual projects are required to provide adequate facilities or pay their fair share of the cost for facilities needed to provide services to accommodate growth without adversely affecting current service levels. Furthermore, exceedance of treatment capacity at the CWTP and Pioneer Reservoir is a rare event (once in every 10 years), the City is implementing the CSSIP to make improvements throughout the system, and the project would pay the Combined Sewer Development Fee for its wastewater contributions to the CSS. For these reasons, and because there is sufficient capacity to treat wastewater flows from the proposed project during dry weather, implementation of the project would not result in a considerable incremental contribution to this cumulative adverse condition.

The related projects considered in this cumulative analysis would be located downtown and could result in increases in stormwater runoff to the CSS. Similar to the proposed project, these related projects would be required to comply with the City's requirements for demonstrating that stormwater runoff would not contribute to a cumulative impact on the CSS. In addition, the related projects would undergo separate environmental review to ensure that adequate surface drainage facilities are included as part of those projects. For these reasons, significant cumulative utilities impacts related to stormwater conveyance facilities would not occur. Because the proposed project would not result in an increase in stormwater that flows to the CSS, the project would not result in a cumulatively considerable incremental contribution to this cumulatively significant impact.

Electricity and Natural Gas

The geographic area considered for cumulative impacts related to energy use includes the service areas for the SMUD and Pacific Gas and Electric Company (PG&E). These providers employ various programs and mechanisms to support provision of these services to new development; various utilities charge connection fees and recoup costs of new infrastructure through standard billings for services. The project would include reconnection to existing electrical infrastructure. Natural gas service is not provided to the Capitol building (Griffith, pers. comm., 2019) and would not be utilized for the project, which would be 100 percent electric, including heating for the building. Although the Capitol building's cooling is, and would continue to be, provided by chilled water from the State's Central Utility Plant, the water chillers are run on electricity.

Cumulative development would increase the demand for electrical and natural gas supply. However, both SMUD and PG&E are establishing or gaining access to new energy sources to serve existing and future customers. Based on existing available energy supplies, new sources, and because the project site is already served by SMUD and PG&E, it is expected that sufficient electricity and natural gas supplies are available to support cumulative development. In addition, electricity and natural gas impacts of related projects would undergo separate environmental review to ensure that adequate electricity and natural gas supplies and infrastructure would be available. For these reasons, significant cumulative impacts related to electricity and natural gas would not occur from implementation of the related projects. In addition, although the new Capitol Annex would have a larger building footprint than the existing Annex, the project would be designed with energy-efficient features and would be powered with 100-percent renewable electricity through an agreement with SMUD. The project would have a less-than-significant cumulative impact related to demand for electricity and natural gas.

5.3.4 Air Quality

Construction and operation of the Capitol Annex Project would result in emissions of criteria air pollutants (e.g., particulate matter with an aerodynamic diameter of 10 microns or less [PM₁₀] and with an aerodynamic diameter of 2.5 microns or less [PM_{2.5}]) and precursors (e.g., oxides of nitrogen [NO_x] and reactive organic gases [ROG]) in Sacramento County, within the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Sacramento County is currently in nonattainment with respect to the California Ambient Air Quality

Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) for ozone, CAAQS for PM₁₀, and NAAQS for PM_{2.5}.

Ozone impacts are the result of cumulative emissions from numerous sources in the region and transport from outside the region. Ozone is formed in chemical reactions involving NO_x, ROG, and sunlight. Only the largest individual sources emit NO_x and ROG in amounts that could have a measurable effect on ambient ozone concentrations by themselves. However, when all sources throughout the region are combined, they can result in severe ozone problems. Because the region is in nonattainment for either CAAQS or NAAQS for ozone precursors (i.e., NO_x and ROG), and criteria air pollutants (PM₁₀ and PM_{2.5}), emissions from cumulative development are considered to be cumulatively considerable.

Air districts in California in nonattainment for ozone precursors develop air quality attainment plans designed to reduce emissions of ozone precursors enough to attain the federal ozone standard by the earliest practicable date. Air quality attainment plans include a multitude of air pollution control strategies. When developing air quality attainment plans, air districts account for the emissions from all present and future development in the region by relying on city and county general plans. Because the proposed project would be consistent with the land use designation in the City of Sacramento 2035 General Plan, emissions associated with the development of the project are accounted for in SMAQMD's air quality attainment plan.

Project-related construction emissions would not exceed the applicable mass emission thresholds for any of the criteria air pollutants or precursors established by SMAQMD that would interfere with the region's health-based standards. Therefore, the short-term contribution of criteria air pollutants and precursors from project construction, combined with other cumulative sources of ozone precursors in the region would not be cumulatively significant and would not contribute to adverse health impacts.

The only project-related increase in long-term air emissions would be associated with building maintenance and reapplication of architectural coatings based on the net increase in building size. However, long-term operational emissions of ROG, PM₁₀, and PM_{2.5} from reapplication of architectural coatings would not exceed SMAQMD's thresholds, which are intended to maintain or achieve attainment designations in the SVAB with respect to the CAAQS and NAAQS. Because the project does not exceed SMAQMD's thresholds, it does not contribute to nonattainment designations; therefore, it would not exacerbate or interfere with the region's ability to attain the health-based standards (SMAQMD 2019). Furthermore, the lack of exposure of criteria air pollutants that may exceed the NAAQS and CAAQS would avoid health impacts. Because the project's operational emissions would be below SMAQMD's recommended thresholds, they would not violate any air quality standard or contribute substantially to an existing or project air quality violation. Because the ambient air quality standards are established to be protective of public health, adverse health impacts to receptors are not anticipated to due to the project's emissions being below SMAQMD's thresholds. Consequently, this impact would not be cumulatively considerable.

The project would not generate significant health risks associated with toxic air contaminants (TACs). TACs associated with the proposed project are focused on diesel PM that could be emitted during project construction. Although other TACs exist (e.g., benzene, 1,3-butadiene, hexavalent chromium, formaldehyde, methylene chloride), they are primarily associated with industrial operations and the project site would not include any industrial sources of other TACs. Operation of the new Annex would not result in new sources of TACs, therefore, operation of the project would have no cumulative impact. Construction-related activities that would result in temporary, intermittent emissions of diesel PM would be from the exhaust of off-road equipment used during demolition and construction of all project components and the use of heavy-duty haul trucks. Based on the construction-related emissions modeling conducted and presented in Table 4.5-4 of this Draft EIR, maximum daily emissions of diesel exhaust PM₁₀, considered a surrogate for diesel PM, would not exceed 2 pounds per day (lb/day) during the Annex demolition phase and 1 lb/day during the Annex building phase, which are considered the most intensive and would last for approximately 239 and 804 days, respectively. This is below the SMAQMD-recommended threshold of 80 lb/day. In addition, all construction activities would occur during daytime hours, which is when many residents who are employed or are students typically are not home, thus limiting exposure from construction-related emissions to these receptors. Considering the relatively low mass of diesel PM emissions that would be generated by construction activity on the project site, the relatively short duration of diesel PM-emitting construction activity at the project site,

and the highly dispersive properties of diesel PM, construction-related TAC emissions would not expose off-site sensitive receptors to an incremental increase in cancer risk greater than 10 in one million or a hazard index greater than 1.0. Therefore, construction and operation of the project would have less-than-significant cumulative impact with regard to TACs.

Beyond use of diesel fuel during construction, the project would not involve materials, elements, or facilities that would be sources of nuisance or otherwise offensive odors. The nature of the project (i.e., office and public uses, as opposed to a landfill expansion, sewage treatment plant, dairy, or the like) is such that no generation of offensive odors would occur and no contribution to existing odors would result.

5.3.5 Greenhouse Gas Emissions and Climate Change

Greenhouse gas (GHG) emissions generated by project construction and operation, discussed under Impact 4.6-1 of this EIR, are inherently cumulative. GHG emissions from one project cannot, on their own, result in changes in climatic conditions; therefore, the emissions from one project must be considered in the context of their contribution to cumulative global emissions. Both construction and operation of the project would include GHG efficiency measures consistent with all applicable State and local polices and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide reduction targets. The project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Thus, the project would not result in a considerable contribution to a significant cumulative GHG impact.

5.3.6 Energy

Implementation of the Capitol Annex Project would include energy efficient design features consistent with green building requirements for State-owned buildings in Executive Order B-18-12. This performance criteria requires that the building consume 15 percent less energy than the mandatory requirements of the 2019 California Green Building Code. Measures addressing energy use reduction, energy-efficient design strategies, and renewable energy sources would be implemented to meet the Silver rating of the U.S. Green Building Council's Leadership in Energy and Environmental Design Version (LEED v4) Green Building Rating System. Additionally, the building would have no use of natural gas and all electricity use would be offset by 100 percent offsite renewable energy through a contract with the SMUD. Construction energy use associated with the project would also not be considered inefficient, wasteful, or unnecessary, because the energy needs for the project would be temporary and are not anticipated to require additional capacity or substantially increase peak or base period demands for electricity and other forms of energy. Furthermore, construction equipment use and associated energy consumption would be typical of those associated with an office, parking, and public use project in an urban setting. Transportation energy use associated with operation of the proposed project would also not be considered inefficient, wasteful, or unnecessary, because the project involves reconstructing an existing building located in a Transit Priority Area, adjacent to an accessible Regional Transit light rail station and additional transit services.

Similar to the proposed project, the cumulative projects would be required to comply with code and state policy design measures to reduce energy consumption. In addition, the related projects would undergo separate environmental review to ensure that their energy use would not be inefficient, wasteful, or unnecessary. For these reasons, significant cumulative impacts related to energy efficiency would not occur from implementation of the related projects, and the project would not result in a cumulatively significant impact related to inefficient use of energy.

5.3.7 Noise and Vibration

Noise and vibration are localized issues in that noise levels attenuate with distance from the source. Therefore, only reasonably foreseeable future development projects in the direct vicinity of the Capitol Annex project site would have the potential to add to anticipated project-generated noise and vibration and thus result in a cumulative noise or

vibration impact. As discussed in Section 4.8, "Noise and Vibration," construction noise would be less than significant and vibration impacts would be reduced to less than significant with incorporated mitigation.

The project would not result in any long-term increases in operational noise (i.e., traffic) or new stationary sources, so this discussion focuses on short-term construction and vibration levels only. Considering the cumulative projects evaluated in this EIR, the 10th and O Street Office Building and the Renovation and Reoccupation of the Jesse M. Unruh Building projects are the only two projects close enough to the proposed project that could result in construction-related activities that could potentially occur simultaneously with construction associated with the project to result in cumulative impacts. However, the 10th and O Street project is located approximately 450 feet south of the proposed project and existing office buildings (i.e., the Legislative Office Building, Caltrans Headquarters) are located between the 10th and O Street Office Building and Capitol Park, which would act as a sound barrier between the two project sites. Also, the 10th and O Street Office Building must be complete and occupied by the Legislature and Executive before work on the Annex begins. Therefore, construction of the 10th and O Street Office Building could only potentially overlap with construction of the visitor/welcome center, and the 10th and O Street Office Building would be near completion at the time that construction of the visitor/welcome center begins. Regarding the Renovation and Reoccupation of the Jesse M. Unruh Building, primary construction activities for this project would be related to interior building renovations. However, the Unruh Project would also include removal of the Capitol Fountain, minor utility improvements, and construction staging around the building. Noise from the exterior construction activities for the Unruh Project could occur from late 2020 through 2023, which would overlap with construction of the Capitol Annex Project. The majority of work on the Unruh Building would be interior building renovation. However, exterior construction activities would generate limited temporary day-time exterior noise and vibration that could combine with noise from construction of the Capitol Annex Project. Because the Unruh Project is focused on renovations to the existing building, involving primarily interior building work, and because the neighboring land uses to the Unruh Building and west end of the Historic Capitol are office and retail uses, they are not considered sensitive receptors. Furthermore, the Unruh Project construction activities would occur during the construction-noise exempt daytime hours.

There is no existing adverse cumulative condition with regard to short-term construction noise and although the project's noise may combine with noise from the Unruh Building Renovation Project and 10th and O Street Office Building construction, such overlap would be temporary, limited, during daytime hours, and would not occur adjacent to sensitive receptors. Therefore, implementation of the Capitol Annex Project would not result in a cumulatively considerable incremental contribution to any significant cumulative noise impact.

5.3.8 Geology and Soils

The Capitol Annex Project site is not located on any known faults or traces of active faults. Construction of the office building would conform to the current California Building Code, which contains specifications to minimize adverse effects on structures caused by ground shaking from earthquakes and to minimize secondary seismic hazards (e.g., liquefaction). Through conformance with the California Building Code and implementation of site-specific engineering measures developed in compliance with the code, development of the Capitol Annex Project would not result in exposure of people or structures to substantial adverse effects related to seismic hazards. In the project would be constructed in conformance with the California Building Code and implementation of applicable measures, which would reduce any potential impacts associated with liquefaction, subsidence, or dynamic compaction. Therefore, the Capitol Annex Project would not create substantial risks to persons or structures associated with these soil conditions.

Implementation of the various related projects and other projects in the region could expose additional structures and people to seismic and soil hazards. The potential seismic and soil hazards, therefore, could represent a significant cumulative impact if projects are not developed to the latest building standards and do not incorporate recommendations from site-specific geotechnical reports and grading/erosion plans prepared for these projects. However, each project considered in this cumulative analysis must individually meet building code requirements, a number of the projects are specifically intended to renovate buildings to meet fire and life safety requirements, and

no additive effect would result from the combination of the projects considered in this cumulative analysis and the Capitol Annex Project. Therefore, no significant cumulative effect related to seismic or soil hazards would occur.

Implementation of the Capitol Annex Project would not create additional facilities under increased risk of seismic or soil hazards and would not result in any cumulatively considerable incremental contributions to any significant cumulative geology impacts

5.3.9 Hydrology and Water Quality

FLOOD PROTECTION

Both the Sacramento River and the American River flow through the project region. Flood control levees in the cities of Sacramento and West Sacramento and in other jurisdictions along these rivers protect development in the floodplain, with the level of flood protection varying depending on the size, configuration, and quality of the levees. Much of downtown Sacramento, as well as other portions of the American River floodplain within the city, have been removed from the 100-year flood hazard area as a result of various flood protection improvements. The Capitol Annex project site is located in an area that is protected from the 1-in-100 Annual Exceedance Probability event (i.e., the 100-year flood) (see Figure 4.10-2 of this Draft EIR).

The project site, as well as the related projects and a vast majority of past, present, and probable future development in the project region, is located outside the 100-year floodplain. Therefore, there would not be a cumulative decrease in available flood storage or increase in flood elevations through the removal of areas from the 100-year floodplain. A significant cumulative flood protection impact would not occur through this mechanism.

Local and regional development could lead to an incremental increase in discharges of stormwater into the Sacramento River and the American River during storm events. In theory, this could lead to an incremental increase in peak stormwater runoff to these rivers and potential increases in downstream flood elevations. However, local jurisdictions implement various regulations and guidelines regarding stormwater detention, runoff rates, and discharge rates. These regulations and guidelines are in place, in part, to minimize runoff discharges during flood events. Therefore, there would not be a significant cumulative increase in downstream flood elevations because of increased generation of stormwater runoff associated with cumulative development. A significant cumulative flood protection impact would not occur through this mechanism.

Overall, the Capitol Annex Project would not result in a cumulatively considerable incremental contribution to any significant cumulative flood control impact or stormwater runoff-related impact because the project involves connections to existing stormwater infrastructure and/or construction of new stormwater infrastructure where new impervious surfaces would result from project implementation. The project would not adversely change the flood control system or create additional impermeable surface that would not be accommodated by new or existing stormwater infrastructure.

GROUNDWATER QUALITY

Construction activities resulting from the Capitol Annex Project, specifically excavation, could intersect with shallow groundwater and require dewatering. Sediments and construction-related contaminants (e.g., fuels, lubricants, oil, grease, paint) could enter the groundwater directly from construction activities where the groundwater table is breached. However, as part of project implementation, the State would be required to obtain and comply with the National Pollutant Discharge Elimination System (NPDES) general permit for construction activity, including preparation of a storm water pollution prevention plan (SWPPP). The NPDES permit would be required to include provisions for dewatering, and the SWPPP would be required to include a dewatering plan, measures to prevent/minimize sediment and contaminant releases into groundwater during excavation, and methods to clean up releases if they do occur. The related projects would be developed at multiple locations with varying depths to groundwater, would generate varying degrees of construction and urban runoff, and would likely implement varying

levels of best management practices that would protect groundwater. Although there would likely be considerable variation among the related projects, and thus potentially varying levels of possible groundwater impacts, a considerable number of regulatory safeguards are in place to ensure that groundwater contamination does not occur. These include, but are not limited to, the NPDES permit system, treated wastewater-discharge requirements, separation-distance requirements between wastewater-storage ponds and groundwater, and hazardous-materials handling requirements. Therefore, impacts of related projects on groundwater quality would be less than significant. The Capitol Annex Project would not make a cumulatively considerable incremental contribution to any significant cumulative groundwater impacts.

SURFACE-WATER QUALITY

As with any project in the downtown area, there is the potential for implementation of the Capitol Annex Project to result in the release of contaminants during construction that could enter the City's CSS and to contribute to long-term discharges of urban contaminants (e.g., oil and grease, fuel, trash, pesticides, fertilizer) into the CSS. Stormwater from the project site that enters the City's CSS would be treated at the Sacramento Regional Wastewater Treatment Plant before it is discharged to the Sacramento River and therefore would not contribute to surface water quality effects. In addition, because the proposed project site is currently developed, project implementation would result in little change to the type or volume of urban contaminants that might be released. In addition, implementation of the NPDES stormwater general permit, which would include best management practices as described in Section 4.10, "Hydrology and Water Quality," would reduce construction- and operation-related water quality effects to less-than-significant levels. The City's municipal NPDES stormwater permit and associated City Stormwater Quality Improvement Plan/Stormwater Management Program require new development and redevelopment projects to implement postconstruction stormwater contaminant source control and treatment controls. Consequently, the SWPPP and approval plans for the project would include site-specific postconstruction stormwater runoff control plans and measures to demonstrate how implementing the project would reduce the potential for contaminants to enter receiving waters.

While there are no assurances that the related projects would incorporate the same degree or methods of treatment as those that would be incorporated for the Capitol Annex Project, each related project that would discharge stormwater runoff would be required to comply with NPDES discharge permits from the Central Valley Regional Water Quality Control Board. Related projects in the city of Sacramento would be required to comply with the City's municipal NPDES stormwater permit and associated City Stormwater Quality Improvement Plan/Stormwater Management Program. Therefore, impacts of related projects on surface water quality would be less than significant. The Capitol Annex Project would not make a cumulatively considerable incremental contribution to any significant cumulative surface water quality impact.

5.3.10 Hazardous Materials and Public Health

The Capitol Annex Project and related projects would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts related to these activities would be less than significant under the Capitol Annex Project because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local agencies, and because it is assumed that those involved with the projects would implement and comply with existing hazardous materials regulations. Therefore, a significant impact related to a significant impact related to hazards and/or hazardous materials would not occur. Because these laws and regulations would also apply to each related project, this impact would be less than significant on both an individual project and cumulative basis.

5.3.11 Archaeological, Historical, and Tribal Cultural Resources

Cultural resources in the project region generally consist of prehistoric sites, historic sites, historic structures, and isolated artifacts. During the 19th and 20th centuries, localized urbanization and intensive agricultural use in the region resulted in the destruction or disturbance of numerous prehistoric sites while many structures now considered to be historic were erected. From the latter half of the 20th century to the present, prehistoric and historic structures have been disturbed and destroyed. During this period, the creation and enforcement of various regulations protecting cultural resources have substantially reduced the rate and intensity of these impacts; however, even with these regulations, cultural resources are still degraded or destroyed as cumulative development in the region proceeds.

ARCHAEOLOGICAL AND TRIBAL CULTURAL RESOURCES

As-yet-undiscovered subsurface historic and prehistoric archaeological resources might underlie the project site. Mitigation measures are identified for Impacts 4.12-1, 4.12-2, and 4.12-3 of this Draft EIR to reduce potential impacts on significant historic and prehistoric archaeological resources, tribal cultural resources, and human burials to a less-than-significant level. Implementing these mitigation measures would minimize the potential for the proposed project to incrementally contribute to any significant cumulative impacts on important archaeological and tribal cultural resources in the project region.

Mitigation measures applied to the project comply with State CEQA Guidelines Section 15064.5 and related provisions to the Public Resources Code. It is assumed that similar measures would be applied to other development projects in the region, as appropriate. Where federal agency approvals are required to implement projects, additional protection would be required under the National Historic Preservation Act.

Because significant historic and prehistoric archaeological resources in the project area are protected, and implementation of Mitigation Measures 4.12-1, 4.12-2, and 4.12-3 would reduce any potentially significant project impacts, significant cumulative impacts are not anticipated. Implementation of the project would not incrementally contribute to a significant cumulative effect on archaeological and tribal cultural resources.

HISTORIC STRUCTURES

Although there are various laws and regulations directed at the protection of historic structures, significant historic structures have been and will continue to be damaged or removed over time. Even with implementation of Mitigation Measure 4.12-4 and compliance with existing policies and regulations, the proposed project, and presumably some reasonably foreseeable future projects, would contribute to an ongoing significant cumulative loss and degradation of historic structures. The project's combination of the complete physical demolition of the Capitol Annex, the changes to the historical integrity of setting and association caused by the introduction of the new visitor/welcome center, the potential for vibration damage during construction activities, the introduction of a new modern building, and physical changes to Capitol Park including introduction of the visitor/welcome center, removal of or damage to memorials, and reconfiguration of pedestrian and vehicular circulation systems together would result in a substantial adverse change per State CEQA Guidelines Section 15064.5(b)(2)(A) because they would materially impair physical characteristics of the State Capitol Complex that help convey its historical significance and qualify it for listing in the NRHP. Therefore, the project would result in a significant impact on the State Capitol Complex historical resource. Mitigation Measure 4.12-4a requires that preservation treatment objectives meet all Secretary of the Interior's Standards (SOIS) for character-defining features having primary significance status and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status, and require adherence to the California State Historical Building Code to the extent feasible in instances when DGS and the JRC must address human safety issues not compatible with the SOIS. Mitigation Measures 4.12-4b and 4.12-4c require DGS and the JRC to seek feasible means for salvaging the Annex's character-defining architectural features and incorporating them into either the design of the new Annex or the interpretive program, which should, at minimum, result in the installation of a permanent exhibit, located on-site, in a public space, which is viewable and accessible to

the public. Although the project implementation of Mitigation Measures 4.12-4a, b, and c would help preserve historic architectural features of the project site, the demolition of the Annex and project site disturbance would remain significant and unavoidable and the project would make a cumulatively considerable incremental contribution to the significant cumulative impact of the loss and degradation of historic structures.

5.3.12 Biological Resources

Sensitive habitats for biological resources in the vicinity of the project site and in the region have been modified over time as land has been developed and converted to urban uses. Future projects in the region could continue to result in losses of sensitive habitats and sensitive species; however, the related plans and projects consist of infill development in the Central City consistent with the State's CAP and the City's 2035 General Plan for development in this urbanized area. Although individual projects would be required to mitigate for significant impacts on a project-by-project basis, they may result in residual impacts that combine with the existing adverse condition to create a significant cumulative condition related to special-status species and sensitive habitats.

The project site and vicinity are located in highly urbanized downtown Sacramento. No special-status plants occur on the project site. In addition, most of the special-status wildlife species identified as having potential to occur in the vicinity of the project site (see Table 4.13-2) either do not occur on the project site or have a low potential for occurrence. However, project impacts include potentially significant impacts on nesting Swainson's hawks, other nesting raptors, other nesting native birds, and bat roosts. Identified mitigation measures would prevent all potential adverse effects on these nests and potential bat roosts and would reduce impacts to a less-than-significant level (Mitigation Measures 4.13-1 and 4.13-2 in Section 4.13, "Biological Resources").

Implementation of the proposed project would result in a potentially significant impact related to removal or disturbance of protected "City street trees." This impact would be reduced to a less-than-significant level with implementation of Mitigation Measure 4.13-3. As discussed in Section 4.13, "Biological Resources," the project site neither connects nor separates any significant wildlife habitat areas, so implementation of the project would not disrupt wildlife movement or use of migratory corridors.

Because the project would either have no impact or a very limited impact on biological resources after mitigation, it would not make a considerable contribution to an adverse cumulative condition with respect to biological resources.

5.3.13 Public Services and Recreation

The Capitol Annex Project would generate a less-than-significant increase in demand for fire, police, and parks and recreation services and facilities. There would be no impact on school facilities because the project would not facilitate population growth or demographic changes within the service area of local schools. In terms of cumulative impacts, public services for related projects in Sacramento would be provided by the City and the appropriate service providers. The following analysis focuses on public services provided in Sacramento because, other than mutual aid agreements for fire protection, there is little interaction with the neighboring jurisdictions in terms of demand for and provision of public services. The City and the appropriate service providers are responsible for ensuring adequate provision of public services within their jurisdictional boundaries.

Buildout of the Sacramento 2035 General Plan would generate an increase in demand for public services. With respect to fire and police protection services, the Sacramento 2035 General Plan states that additional fire and police protection staff would be needed to accommodate growth contemplated in the city and that the Sacramento Police Department and Sacramento Fire Department would need to both remodel existing facilities and construct new facilities to maintain appropriate service levels (City of Sacramento 2014:4.10-3 and 4.10-4, 4.10-7). Cumulative demand for California Highway Patrol services by State facilities would be planned for through the Capitol Protection Section unit of the California Highway Patrol, participating on the Capitol Area Committee. Participation by the Capitol Protection Section unit on this committee helps it determine when additional staff, equipment, or facilities are needed as additional State facilities are planned. The 2035 General Plan includes measures to accommodate growth and increased service demands, including specific policies to ensure that service goals are met and that several new

fire and police stations and associated facilities are identified that would accommodate the additional staff (Policies PHS 1.1.2 through PHS 1.1.4, PHS 1.1.7, PHS 1.1.12, and PHS 2.1.2 through PHS 2.1.5). Impacts on the environment resulting from the expansion or construction of these facilities were already contemplated and would generally be consistent with the environmental impacts associated with the urban development evaluated in the 2035 General Plan Master EIR (MEIR). For these reasons, there would be no significant cumulative impact with regard to fire, emergency, or police services.

The 2035 General Plan anticipates increases in density and associated population increases in the city, including within the Central City, where the Capitol Annex Project is located. There are many recreational amenities in the vicinity of the project site and Central City, such as neighborhood parks, State parks, and the American and Sacramento Rivers. However, the 2035 General Plan MEIR states that with the increased population and densities there would be a reduction in park service levels and an increase in usage of parks in the Central City (City of Sacramento 2014:4.9-7). Policies in the General Plan and the City's Parks and Recreation Master Plan include measures to provide resources to protect and enhance the existing park facilities and to provide a well-rounded recreational experience for downtown residents (General Plan Policies ERC 2.2.2 through 2.2.4 and ERC 2.2.18 and Master Plan Policies 3.5, 12.1, 12.9, and 12.10). Those policies, coupled with the payment of fees by developers, would serve as complete CEQA mitigation to satisfy the impact of development on parks and recreation facilities. Because daytime use of nearby parks by employees associated with the project would not substantially increase above the current level of use, the City has policies that provide for protecting and enhancing the existing park facilities, and other future development in the city is required to pay fees to offset the impact on parks and recreation facilities, no cumulative impact would occur. Furthermore, although recreational space and facilities at Capitol Park would be disrupted during the approximately 4-year project construction period, events could be accommodated at other locations in Capitol Park or at other event sites in Sacramento and could resume on the Capitol grounds after completion of the project. Furthermore, statues and memorials would be documented, stored, and replaced after construction and important trees that must be removed would be replanted in kind after construction. Furthermore, the project would not affect numbers of residents, visitors, or employees in the region, and would not increase demands on recreational facilities. Therefore, the project would not result in a substantial contribution to any cumulative parks and recreation impact.

5.3.14 Aesthetics, Light, and Glare

Past development in the region along I-5, U.S. 50, and Sacramento River viewsheds has increasingly changed the visual character from undeveloped land to developed urban uses, thus altering and limiting the views available to residents, recreationists, and motorists. Cumulative projects listed above include several new and renovated buildings in various stages of planning or construction in downtown Sacramento that contribute to this developed character. This trend is anticipated to continue as future projects are implemented in the region, continuing to alter visual conditions as open viewsheds are replaced by urban development. Downtown Sacramento is an urban environment with a mix of low-rise, midrise, and high-rise buildings and a large amount of widespread, ambient light. Building materials and cars generate some glare; however, mature trees in downtown help minimize glare. Existing urban development in downtown Sacramento also results in shadows throughout the day. Increased urban development in downtown Sacramento and nearby West Sacramento would lead to alterations in the skyline, shading of ground-level areas, disruption of existing views, increased nighttime light and glare in the region, and more limited views of the night sky.

The Capitol Annex Project would not make a substantial contribution to the cumulative changes in visual character, light, or glare in the region because the new Annex building would not be substantially larger than the existing building and the new visitor/welcome center and parking garage would be located underground. Further, the project site is an already developed area. The local visual character, as experienced by viewer groups in the area, would not be substantially altered by reconstruction of the new Annex and construction of the visitor/welcome center and parking garage. The proposed project would comply with LEED v4 criteria and standards contained in California's Green Building Code for reducing light pollution, would avoid the use of highly reflective architectural materials for

building design, and would not create a new source of substantial light and glare that would adversely affect daytime or nighttime views in the area.

Implementation of the project would result in a potentially significant impact to adverse effects on a scenic vista should entry features of the new visitor/welcome center be placed above-ground in the foreground of the Historic Capitol. This impact would be reduced to a less-than-significant level through implementation of Mitigation Measure 4.15-1. As discussed in Section 4.15, "Aesthetics, Light, and Glare," the project would not result in adverse impacts to the Capitol Mall scenic vista because it would require the project to be designed in a way that would not alter long-distance, undisturbed views of the Historic Capitol Building.

Because no significant cumulative aesthetic impact would occur and the project would either result in no impacts or less-than-significant visual impacts, implementation of the project would not incrementally contribute to a significant cumulative effect on aesthetics, light, and/or glare.

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6 OTHER CEQA SECTIONS

6.1 GROWTH INDUCEMENT

CEQA Section 21100(b)(5) specifies that the growth-inducing impacts of a project must be addressed in an EIR. Section 15126.2(e) of the State CEQA Guidelines provides the following guidance for assessing growth-inducing impacts of a project:

Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also, discuss the characteristics of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

A project can induce growth directly, indirectly, or both. Direct growth inducement would result if a project involved construction of new housing. Indirect growth inducement would result, for instance, if implementing a project resulted in:

- ▶ substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises);
- ▶ substantial short-term employment opportunities (e.g., construction employment) that indirectly stimulates the need for additional housing and services to support the new temporary employment demand; or
- ▶ removal of an obstacle to additional growth and development, such as removing a constraint on a required public utility or service (e.g., construction of a major sewer line with excess capacity through an undeveloped area).

Growth inducement itself is not an environmental effect but may foreseeably lead to environmental effects. If substantial growth inducement occurs, it can result in secondary environmental effects, such as increased demand for housing, demand for other community and public services and infrastructure capacity, increased traffic and noise, degradation of air or water quality, degradation or loss of plant or animal habitats, conversion of agricultural and open space land to urban uses, and other effects.

6.1.1 Capitol Area Plan EIR Analysis of Growth-Inducing Impacts

The EIR prepared for the 1997 Capitol Area Plan (CAP) previously addressed growth-inducing impacts associated with development of State facilities within the Capitol Area as envisioned in the plan. The Capitol Area encompasses the project site. The CAP designates landscaped portions of Capitol Park as Parks and Open Space but designates walkways and hardscape, including the State Capitol building and the Capital Annex building ("Capitol Annex" or "Annex"), as Other Existing Use (DGS 1997a). The Capitol Annex Project does not alter any of the land uses or land use designations for project site. The Historic Capitol, Capitol Annex, and Capitol Park would remain. Although the Capitol Annex would have increased square footage, the number of elected officials and employees served by the Annex would not change. Although the Capitol Annex Project does not alter the development at the project site assumed in the CAP, the analysis of growth inducement in the CAP EIR (DGS 1997b) is summarized below. The CAP EIR concludes that implementing the plan would have the following growth-inducing effects:

- ▶ *Elimination of obstacles to growth.* Plan implementation would provide a policy for the State to consolidate its future office development in the Capitol Area instead of spreading the office development throughout the

region. This would result in more office development in the downtown Sacramento area, possibly inducing localized growth.

- ▶ *Increased demand on secondary markets.* Implementing the CAP would result in a substantial increase in the demand for support businesses and services in the downtown area; therefore, the plan would be a significant economic catalyst for downtown Sacramento.
- ▶ *Land use intensification.* Full buildout of State facilities consistent with the CAP may result in increased pressure to intensify land uses/development on many of the privately owned parcels in the Capitol Area.

6.1.2 Growth-Inducing Impacts of the Project

As described in Chapter 3, "Project Description," the new Annex would serve the same purpose as the existing Annex. Approximately 1,700 personnel (i.e., elected officials, their staff, and other employees in the Capitol) work in the Annex. The number of employees would not change as a result of developing the new Annex, although some employees currently located in the Legislative Office Building may move to the Annex and vice versa. The visitor/welcome center would increase the square footage of visitor serving facilities at the Capitol, but these services would consist predominantly of educational displays and the primary purpose of the visitor/welcome center would be to act as a new secure entrance to the Capitol, replacing the two existing secure entrances at the Annex. The visitor/welcome center also would not alter the number of employees at the Capitol. No element of the proposed project would add new visitors to the Capitol. Improvements to the Annex and the replacement of existing entrances with the visitor/welcome center are not the types of facilities that would result in people without prior plans to visit Capitol to then decide to visit the Capitol because these facilities are now present.

GROWTH-INDUCING EFFECTS OF CONSTRUCTION

During peak construction activity, the project is estimated to generate between 200 and 300 temporary construction jobs. As described in Section 4.1.1, "Effects Found Not to Be Significant," according to the latest labor data available from EDD (2019), 61,900 residents in the Sacramento-Roseville-Arden Arcade Metropolitan Statistical Area (MSA) are employed in the construction industry. Approximately 2,660 of these construction employees could be available in Sacramento County to work on the proposed project (determined by applying the 2019 unemployment rate of 4.3 percent for the Sacramento-Roseville-Arden Arcade MSA to the construction sector). This existing number of residents in the construction labor force ("labor force" is defined as all those people who are employed or are looking for employment), coupled with those of other areas within commute distance (e.g., Yolo, Placer, and El Dorado Counties), would be sufficient to meet the demand for construction workers that would be generated by the project.

Construction jobs supporting the proposed project would be temporary, and it is the nature of construction work that construction contractors bid and work on projects based on their availability and need for work, and in regions that are accessible to their workforce. As existing construction projects near completion, contractors may seek out new construction projects to maintain employment for the same workers. Although it is possible that some construction workers could move to the city or the region as a result of the proposed project and the cumulative projects, the existing labor force is anticipated to be sufficient to meet construction employment needs for these projects. Furthermore, the Sacramento 2035 General Plan anticipates continued growth in jobs and includes policies, such as Policy LU 2.8.6, that promote the designation of sufficient land and development potential for housing and employment opportunities for a range of incomes and household types throughout the city, and it encourages a balance between job type, workforce, and housing development.

For these reasons, substantial population growth or increases in housing demand in the region as a result of these construction jobs are not anticipated. Therefore, the project would not be expected to directly induce population growth by bringing substantial numbers of construction jobs to the area or to result in associated increases in demand for housing or goods and services.

GROWTH-INDUCING EFFECTS OF OPERATION

The project site is located in downtown Sacramento, which has an established roadway network and utilities infrastructure. The roadways providing access to and through downtown Sacramento in the project vicinity would not be altered, other than the temporary modifications to N Street operations between 10th and 11th Street during construction as evaluated in Section 4.3, "Transportation and Circulation," and no new roadways would be constructed. The new Annex, visitor/welcome center, and underground parking structure would connect to existing City of Sacramento water supply pipelines and the City's combined sewer system (CSS). As documented in Section 4.4, "Utilities and Service Systems," existing water supply and conveyance, CSS conveyance, and wastewater treatment capacity would be sufficient to serve the project. Although the project would not require new water entitlements, it may require new or expanded utility infrastructure in areas where existing connections on the project site are in need of updates, upgrades, or modifications. The State's Central Plant, which for the purposes of this EIR is assumed to provide heating and cooling, also has sufficient capacity and conveyance to serve the project. Implementing the project therefore would not induce growth by extending roadway or utility infrastructure to new areas or increasing infrastructure capacity.

As described above, the Capitol Annex Project would not result in any new employment. The ongoing use of the project site as Parks and Open Space, Other Existing Use, and office space would be consistent with the CAP and general plan assumptions for employment generation and, subsequently, growth projections. Therefore, the level of growth is anticipated in both local and regional plans and would not require development of housing or other facilities not identified in these plans.

6.2 SIGNIFICANT AND UNAVOIDABLE ADVERSE IMPACTS

State CEQA Guidelines Section 15126.2(c) requires EIRs to include a discussion of the significant environmental effects that cannot be avoided if the proposed project is implemented. As documented throughout Chapter 4, "Environmental Impacts and Mitigation Measures," and Chapter 5, "Cumulative Impacts," of this Draft EIR, the following impact is considered significant and unavoidable; that is, no feasible mitigation is available to reduce the project's impact to a less-than-significant level.

6.2.1 Archaeological, Historical, and Tribal Cultural Resources

Impact 4.12-4: Potential for Impacts on Historic Architectural Resources

The Capitol Annex Project would result in physical changes within two historic districts, a NRHP-eligible historic district, and four individually NRHP-eligible historic buildings. The combination of the complete physical demolition of the Capitol Annex, the changes to the historical integrity of setting and association caused by the introduction of the new visitor/welcome center, the potential for vibration damage during construction activities, the introduction of a new modern building, and physical changes to Capitol Park including introduction of the visitor/welcome center, removal of or damage to memorials, and reconfiguration of pedestrian and vehicular circulation systems together would result in a substantial adverse change per State CEQA Guidelines Section 15064.5(b)(2)(A) because they would materially impair physical characteristics of the State Capitol Complex that help convey its historical significance and qualify it for listing in the NRHP. Therefore, the project would result in a significant impact on the State Capitol Complex historical resource.

Implementation of Mitigation Measures 4.12-4a, (Adhere to the Historic Structure Report, Secretary of the Interior's Standards for the Treatment of Historic Properties, the California State Historical Building Code, and Relevant National Park Service Preservations Briefs) 4.12-4b (Conduct Architectural Salvage), 4.12-4c (Develop and Implement an Interpretive Program), 4.12-4d (Develop and Implement a Plan for Protection, Restoration, or Replacement of Commemorative Trees, Plantings, or Other Memorials in Capitol Park), and 4.12-4e (Develop and Implement a Plan for Protection, Monitoring, and Repairs for Inadvertent Damage to the Historic Capitol Building) would aid in reducing impacts and would compensate for impacts that cannot be avoided. Specifically, these mitigations measures

ensure preservation treatments, preparation of a detailed salvage plan, development of an interpretive program, and protection of Capitol Park resources as well as the Historic Capitol. However, even after application of these mitigation measures, this impact would remain significant and unavoidable because the Capitol Annex, which represents approximately half of the monumental building in the NRHP-listed complex, would be permanently and completely destroyed.

Chapter 7, "Alternatives," includes a discussion of alternatives that would reduce or eliminate impacts to historic architectural resources, including the Capitol Annex Renovation Alternative and the No Project-No Development Alternative. However, as described in Chapter 7, these alternatives are infeasible, do not meet the basic project objectives, or would result in other environmental consequences. Consequently, mitigation is available to only partially mitigate the impacts of the project on historic architectural resources. Therefore, after application of all feasible mitigation measures, this impact would remain **significant and unavoidable**.

6.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

The State CEQA Guidelines require a discussion of any significant irreversible environmental changes that would be caused by the project. Specifically, State CEQA Guidelines Section 15126.2(d) 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 generation 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.

The project would result in the irreversible and irretrievable commitment of energy and material resources during construction and operation, including:

- ▶ construction materials, including such resources as soil, rocks, wood, concrete, glass, and steel;
- ▶ water supply for project construction and operation; and
- ▶ energy expended in the form of electricity, natural gas, diesel fuel, gasoline, and oil for equipment and transportation vehicles that would be needed for project construction and operation.

These nonrenewable resources would represent only a modest portion of the resources available in the region and would not affect the availability of these resources for other needs in the region.

Demolition and construction activities would not result in inefficient use of energy or natural resources. During demolition of the existing Annex, materials such as concrete and metals would be recycled. During construction, contractors would use best available engineering techniques, construction and design practices, and equipment operating procedures.

Project operation would not result in substantial long-term consumption of energy and natural resources. In accordance with State policy, the new Annex and visitor/welcome center would be zero net energy facilities. The project would exceed the 2016 Building Energy Efficiency Standards and would meet or exceed Leadership in Energy and Environmental Design version 4 Silver certification. Energy Star office equipment, energy-efficient computer monitors, and LED (light-emitting diode) lighting would be used throughout the new building. Electrical metering and control systems would be installed to control systems and monitor electrical loads on a per system basis (e.g., lighting, mechanical) and on a per floor basis. Electrical service, provided by Sacramento Municipal Utility District (SMUD), would be from 100-percent renewable resources. In addition, the new Annex and visitor/welcome center would include water conservation and reuse measures that exceed 2016 Title 24 water efficiency requirements. All plumbing fixtures in the building would be low-flow/high-efficiency fixtures. Public transit would be available for use by employees because the project is located within a couple of blocks of Sacramento Regional Transit's Archives Plaza light rail station and bus stops for several different routes and transit providers (e.g., Sacramento Regional Transit, El Dorado Transit).

7 ALTERNATIVES

7.1 INTRODUCTION

The California Code of Regulations (CCR) Section 15126.6(a) (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 range of potentially feasible alternatives that will avoid or substantially lessen the significant adverse impacts of a project, and 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 the State CEQA Guidelines also provides guidance regarding what the alternatives analysis should consider. Subsection (b) further states the purpose of the alternatives analysis is 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 require that the EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. 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 must be discussed, but in less detail than the significant effects of the project as proposed (CCR Section 15126.6[d]).

The State CEQA Guidelines further require that the "no project" alternative be considered (CCR Section 15126.6[e]). The purpose of describing and analyzing a no project alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving the proposed project. If the no project alternative is the environmentally superior alternative, CEQA requires that the EIR "...shall also identify an environmentally superior alternative among the other alternatives." (CCR Section 15126[e][2]).

In defining "feasibility" (e.g., "... feasibly attain most of the basic objectives of the project ..."), CCR 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 consider 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 California Department of General Services (DGS). (See PRC Sections 21081.5, 21081[a] [3].)

7.2 CONSIDERATIONS FOR SELECTION OF ALTERNATIVES

7.2.1 Attainment of Project Objectives

As described above, one factor that must be considered in selection of alternatives is the ability of a specific alternative to attain most of the basic objectives of the project (CCR Section 15126.6[a]). Chapter 3, "Project Description," articulates the following project objectives:

- ▶ Provide an accessible, efficient, and safe environment for State employees, elected officials, and the public they serve.
- ▶ Integrate the new State development with the existing surroundings.
- ▶ Develop sustainable and energy efficient facilities.
- ▶ Provide modern facilities that meet current construction standards and codes.
- ▶ Continue to provide secure parking for legislative and executive branch officials.
- ▶ Provide meeting space for legislative and executive functions of sufficient size to support efficient performance of State business and with modern communications technology.
- ▶ Continue to provide Annex facilities directly adjacent to the Historic Capitol.
- ▶ Promote education, hospitality, and a welcoming environment for the visiting public.

7.2.2 Environmental Impacts of the Capitol Annex Project

Sections 4.2 through 4.15 of this Draft EIR address the environmental impacts of implementation of the proposed Capitol Annex Project. Potentially feasible alternatives were developed with consideration of avoiding or lessening the significant, and potentially significant, adverse impacts of the project, as identified in Chapter 4 of this Draft EIR and summarized below. If an environmental issue area analyzed in this Draft EIR is not addressed below, it is because no significant impacts were identified for that issue area. One significant and unavoidable environmental impact resulting from the project was identified: even after implementation of mitigation measures, historic structure impacts to the State Capitol Complex (composed of the Historic Capitol, the Capitol Annex, and Capitol Park, see Section 4.12, "Archaeological, Historical, and Tribal Cultural Resources.") would be significant and unavoidable.

- ▶ **Noise and Vibration:** Project construction would require the use of heavy-duty vibration-generating equipment; drilling of piles for new structures are anticipated to generate the highest levels of vibration. Specific locations, number/frequency of piles, and specific equipment characteristics (i.e., equipment model) are not known at this time; however, construction activities that can generate high levels of ground vibration may be located adjacent to the existing Historic Capitol, potentially resulting in structural damage and/or disturbance to employees or daily operations taking place within the building. Implementation of Mitigation Measure 4.8-1 would require the preparation and implementation of a vibration control plan that ensures pile installation would not occur during the more sensitive times of the day (i.e., late evening through early morning). It also requires the construction team to define appropriate setback distances, and identify and implement construction methods that would not result in ground vibration induced damage to nearby buildings or substantial human disturbance. These measures would ensure compliance with recommended vibration levels to prevent structural damage and human annoyance, and this impact would be reduced to a **less-than-significant** level.
- ▶ **Archaeological, Historical, and Tribal Cultural Resources:** The project site has been disturbed during past development, reducing the potential for sub-surface cultural resources to be present. However, contact with previously undisturbed native soils during construction could result in damage or destruction of currently unrecorded subsurface historic and pre-historic archeological resources, tribal cultural resources, or human remains. Mitigation Measures 4.12-1, 4.12-2, and 4.12-3 collectively require stopping work in the vicinity of any area where evidence of historic or pre-historic archeological resources, tribal cultural resources, or human

remains are encountered; properly evaluating, documenting, and protecting any finds; and transferring any archeological material or remains removed from the site to an appropriate organization or individual. Implementation of these measures would reduce this impact to a **less-than-significant** level.

Implementation of the Capitol Annex Project would result in a substantial adverse change to a historic architectural resource (the State Capitol Complex) due to demolition and reconstruction of the Annex, construction disturbance to the Historic Capitol building, and disturbance to landscape and hardscape features of Capitol Park surrounding the Capitol building. Mitigation Measure 4.12-4a requires that preservation treatment objectives meet all Secretary of the Interior's Standards (SOIS) for character-defining features having primary significance status and meet as many SOIS as feasible for those character-defining features designated as having secondary significance status, and require adherence to the California State Historical Building Code to the extent feasible in instances when JRC must address human safety issues not compatible with the SOIS. Mitigation Measures 4.12-4b and 4.12-4c require JRC to seek feasible means for salvaging the Annex's character-defining architectural features and incorporating them into either the design of the new Annex or the interpretive program, which should, at minimum, result in the installation of a permanent exhibit, located on-site, in a public space, which is viewable and accessible to the public. Although the implementation of Mitigation Measures 4.12-4a, b, and c would help preserve historic architectural features of the project site, the effects of demolition of the Annex and project site disturbance would remain **significant and unavoidable**.

- ▶ **Biological Resources:** The project would require pruning or removal of trees, including trees within Capitol Park and City street trees. Project implementation could result in indirect disturbance to nesting Swainson's hawk, white-tailed kite, other nesting raptors, and other native nesting birds, if present within the trees on the project site or the City street trees adjacent to the project site. Project implementation could also result in inadvertent disturbance to roosts or maternal colonies of common bat species or inadvertent exclusion of these bats, if present within the exterior or interior of the Annex. Implementation of Mitigation Measures 4.11-1, 4.11-2, and 4.11-3 would reduce these impacts to a **less-than-significant** level because active nests would be identified during preconstruction surveys and indirect disturbance to nesting raptors would be avoided; bat roosts and maternity colonies would be identified and bats would be excluded during construction activities; and City street trees would be protected or replaced.
- ▶ **Aesthetics, Light, and Glare:** Construction of the Capitol Annex Project would temporarily alter views of the Historic Capitol. In addition, if any permanent features (e.g., elevator shafts, stairwell shelters) of the proposed visitor/welcome center are located above ground and at the foreground of the Historic Capitol's west steps, scenic views from the Capitol Mall corridor, a scenic vista, would be impaired. However, implementation of Mitigation Measure 4.15-1 would reduce project impacts on this scenic vista to a **less-than-significant** level by preventing any project features being installed that would obstruct views offered along the Capitol Mall corridor and long-distance, scenic views of the State Capitol.

7.3 ALTERNATIVES CONSIDERED BUT NOT EVALUATED FURTHER

As described above, State CEQA Guidelines Section 15126.6(c) provides that 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. Alternatives that fail to meet the fundamental project purpose need not be addressed in detail in an EIR. (*In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2008) 43 Cal.4th 1143, 1165-1167.)

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 lead agency decision-maker(s). (See Pub. Resources Code, § 21081(a)(3).) At the time of action on the project, the decision-maker(s) may consider evidence beyond that found in this EIR in addressing such determinations. The decision-maker(s), for example, may conclude that a particular alternative is infeasible (i.e.,

undesirable) from a policy standpoint, and may reject an alternative on that basis provided that the decision-maker(s) adopts a finding, supported by substantial evidence, to that effect, and provided that such a finding reflects a reasonable balancing of the relevant economic, environmental, social, and other considerations supported by substantial evidence. (*City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417; *California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 998.)

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 alternatives were considered by DGS and the JRC but are not evaluated further in this Draft EIR.

7.3.1 Fully Detached/Partially Detached Annex

A "fully detached" Annex alternative considers demolition of the current Annex building and construction of a new Annex building, adjacent to but physically separate from the Historic Capitol within the project site. The detached Annex would remain on the eastern side of the Historic Capitol, but it would require State Capitol staff, legislature, and executive branch officials to exit the new Annex and enter the Historic Capitol on the ground-level. No inter-building connections would be constructed. Under this alternative, the Historic Capitol's eastern façade would be restored to its original condition consistent with the Secretary of the Interior's Standards (SOIS) for the Treatment of Historic Properties. The new Annex building would be the same size as the proposed project, approximately 525,000 square feet, and would address the necessary building code and fire-safety requirements. The underground visitor/welcome center would still be needed to provide an entrance to the Historic Capitol during Annex demolition and is included in this alternative. The underground parking garage would also be constructed as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). The Detached Annex alternative would have a similar building footprint as the proposed project, but the disturbance area would be larger to allow the eastward location of the Annex away from the Historic Capitol building. This alternative would have similar construction and operational impacts due to similar levels of demolition and construction activities and serving the same number of building occupants in the Annex. However, this alternative would increase Annex building's encroachment eastward into Capitol Park. This alternative would allow for restoration of the Historic Capitol's eastern façade, providing a potential beneficial effect to historic architecture. Although a Detached Annex is a feasible alternative to the proposed project, the physical separation of the Annex from the Historic Capitol is a critical issue as it disrupts the connectivity between the buildings and affects the ability to meet project objectives. A Detached Annex building would reduce the accessibility, efficiency, and safety of the Capitol for State employees, elected officials, and the public they serve.

Additional connectivity could be provided through a covered ground level walkway and/or a "sky bridge" connecting upper floors of the Annex to upper floors of the Historic Capitol. However, a ground level covered walkway would obstruct north/south pedestrian movement between the buildings. At least one sky bridge connection would need to be provided at every floor to begin to approximate the accessibility of a fully connected building, resulting in these features dominating the view between the Historic Capitol building and the new Annex. These type of partial or limited connection options do not make this alternative any more feasible or desirable. Restoration of the Historic Capitol's eastern façade is not necessary to meet the project objectives and would represent substantial additional costs to the State. Furthermore, the proposed Capitol Annex Project would not result in significant environmental impacts; therefore, this alternative would not avoid significant environmental impacts. For these reasons, DGS and the JRC are not considering a Fully Detached or Partially Detached Annex and this alternative is not evaluated in detail in this EIR.

7.3.2 Split Annex Functions

This alternative considers demolition and reconstruction of the Annex in the same location and connected to the Historic Capitol as proposed, but at a smaller scale. The reduced size of the Annex would be offset by maintaining long-term legislative and executive branch use of the 10th and O Street Office Building. Under this alternative, the underground visitor/welcome center and parking garage would be constructed the same as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). The new Annex, which would be constructed at a reduced size, would address the required building code and fire-life safety improvements. Reducing the size of the new Annex building would reduce the construction activities, but would not meaningfully change the project's disturbance footprint. Similar demolition and ground disturbing activities would be necessary, although building construction would be somewhat reduced. Long-term operation of a smaller Annex building would reduce energy use and associated emissions. However, the proposed Capitol Annex Project would not result in significant environmental impacts related to energy usage and emissions; therefore, this alternative would not avoid significant environmental impacts. Also, additional energy usage would occur at the 10th and O Street Office Building housing some legislative and executive branch functions. Although this a feasible alternative to the proposed project, the Split Annex Functions alternative disrupts the connectivity between the Historic Capitol, Annex, and 10th and O Street Office Building and affects the ability to meet project objectives. The primary concern related to this alternative is safety concerns associated with the movement of elected officials and staff between the Annex and 10th and O Street Office Building. Implementation of traffic safety measures to address pedestrian flow between the buildings could result in disruption of vehicular traffic on N Street. Splitting functions between the Annex and 10th and O Street Office Building would reduce the accessibility, efficiency, and safety of the Capitol for State employees, elected officials, and the public they serve. For these reasons, DGS and the JRC are not considering a Split Annex Functions alternative, and this is not evaluated in detail in this EIR.

7.3.3 No Parking Garage

This alternative considers demolition and reconstruction of the Annex and construction of the underground visitor/welcome center as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). However, under this alternative, the existing parking garage below the Annex would be abandoned and no new parking for the legislative and executive branches would be constructed. Construction impacts associated with demolition and construction would be reduced compared to the proposed project because the area of ground disturbance would be reduced. For most environmental issue areas, long-term operation of this alternative would result in similar impacts as the proposed project, because the Annex would continue to serve the same number of occupants. However, this alternative could result in additional transportation impacts or development-related impacts because it is probable that under this alternative, secure off-site parking would be utilized or would need to be constructed to serve legislative and executive branch officials. There would also be safety concerns associated with the movement of elected officials and staff between the Annex and wherever parking is provided. Although this a feasible alternative to the proposed project, the provision of on-site secure and accessible parking is an objective of the Capitol Annex Project. In addition, this alternative would reduce the accessibility, efficiency, and safety of the Capitol for State employees and elected officials. For these reasons, DGS and the JRC are not considering the No Parking Garage alternative, and it is not further evaluated in this EIR.

7.3.4 No Visitor/Welcome Center

This alternative considers demolition and reconstruction of the Annex and construction of the underground parking garage, as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). However, under this alternative, a new visitor/welcome center would not be constructed and the original visitor center, located within the Historic Capitol would continue to serve those visiting the State Capitol. Entrance to the visitor/welcome center would be located at the Historic Capitol, where existing visitor entry is currently not permitted. Construction impacts associated with demolition and construction would be reduced compared to the proposed project because the area of ground disturbance would be reduced. Long-term operation of this alternative would result in similar

impacts as the proposed project, because the Annex would continue to serve the same number of occupants. Although this is a feasible alternative to the proposed project, this alternative would require modifications to the Historic Capitol building to provide a covered security checkpoint at one of the Historic Capitol entries, resulting in increased impacts to historic architecture. In addition, services provided by the proposed visitor/welcome center would not be available. Depending on how public entry to the Historic Capitol is provided during construction, at the north, west, or south steps, the public could be brought into close proximity to the Annex and underground parking construction areas, creating a potential safety hazard for the public and providing substantial operational restrictions to construction activities. For these reasons, DGS and the JRC are not considering the No Visitor/Welcome Center alternative, and it is not further evaluated in this EIR.

7.3.5 Annex Remodel and Addition

This alternative considers construction of the visitor/welcome center and underground parking garage as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). However, this alternative includes a renovation and remodel of the existing Annex building. This alternative would retain the Annex's existing exterior structure, but the entire interior structure would be removed and replaced. Space within the Annex would be efficiently planned for the reuse of the existing structure and major Annex building elements. However, this alternative would not address the floor-to-floor height limitations that currently presents functional issues within the building. To provide the additional space and facility improvements identified in the project objectives, this alternative would also include the addition of a new building east of the existing Annex. This new building would provide additional office space and would be connected to the existing Annex on the eastern façade. Because the addition would not extend beyond 12th Street, it would expand significantly to the north and south, towards L Street and N Street, respectively. Construction and operation of this alternative would represent increased impacts compared to the proposed project. Specifically, increased impacts to biological resources (trees and vegetation) and recreational resources associated with Capitol Park would occur. Also, much of the exterior of the Annex would be covered or obscured by the building addition to provide space and facility improvements consistent with the project objectives. Therefore, any benefits of maintaining the exterior of the existing Annex would not occur, or be substantially reduced. For these reasons, DGS and the JRC are not considering the Annex Remodel and Addition alternative, and it is not further evaluated in this EIR.

7.3.6 Two Underground Parking Structures

This alternative considers demolition and reconstruction of the Annex and construction of the visitor/welcome center, as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). This alternative consists of construction of two separate, smaller underground parking structures, one on the north side of the Historic Capitol and one on the south side. One parking structure would be used by the Assembly and the other would be used by the Senate and Governor. Access and egress to the south garage would occur through N Street and access and egress to the north garage would be provided on L Street. For many environmental issue areas this alternative would result in similar impacts to the proposed project. Though the garages would be located in different portions of the project site, the size and nature of construction would be similar to the proposed parking garage north of N Street (proposed project). However, this alternative would require four driveways, one entry and one exit for each parking structure, as opposed to two driveways for the proposed project and under existing conditions. The doubling of parking structures and driveways would also double security needs and paved area within Capitol Park. This alternative would also increase the linear feet of excavation and construction adjacent to the foundation of the Historic Capitol, creating a greater risk of damage to the Historic Capitol. An additional penetration of the Historic Capitol foundation may be required, compared to the proposed project, if parking structures are to have an underground connection to the Historic Capitol basement. Because of the extra paved area, risk to the Historic Capitol, and increased requirement for security, DGS and the JRC is not considering the Two Parking Structures alternative, and it is not further evaluated in this EIR.

7.3.7 Basement Visitor/Welcome Center

This alternative considers construction of an underground parking structure as proposed in the Capitol Annex Project (see Chapter 3, "Project Description," of this Draft EIR). Under this alternative, visitor/welcome center functions would be provided in the Historic Capitol Basement. Various existing functions in the basement, such as the bill room, travel office, and State Parks storeroom, would be moved to the new Annex to make space for the new uses in the Historic Capitol basement. The square footage of the new Annex would need to be increased to accommodate these functions. Like the No Visitor/Welcome Center alternative described above, a public entry, with a covered security checkpoint, would need to be established at one of the Historic Capitol entrances. A potential option would be the on the south side of the Historic Capitol within and around the south light well. Although this is a feasible alternative to the proposed project, this alternative would require modifications to the Historic Capitol building to provide a covered security checkpoint at one of the Historic Capitol entries, resulting in increased impacts to historic architecture. Depending on how public entry to the Historic Capitol is provided during construction, at the north, west, or south steps, the public could be brought into close proximity to the Annex and underground parking construction areas, creating a potential safety hazard for the public and providing substantial operational restrictions to construction activities. The footprint of the Annex would likely also need to be expanded to accommodate functions moved from the Historic Capitol basement. For these reasons, DGS and the JRC are not considering the Basement Visitor/Welcome Center alternative, and it is not further evaluated in this EIR.

7.3.8 Visitor/Welcome Center East Entry

This alternative considers construction of the new visitor/welcome center on the eastern façade of the new Annex building. Under this alternative, the Annex building would increase by approximately 30,000 to 40,000 net square feet. The east-entry visitor/welcome center would be designed to separate visitor traffic from Legislative and staff traffic in order to maintain efficient day-to-day operations within the new Annex. During demolition and reconstruction of the new Annex, a temporary entry to the Historic Capitol would be required for visitors, student groups, Legislative members, and staff. Similar to the Visitor/Welcome Center South Entry alternative, this alternative would result in reduced construction activities and could therefore result in a reduction of impacts associated with biological resources, archaeological resources, and noise/vibration. However, public access through the new Annex would reduce the accessibility, efficiency, and safety of the Capitol for State employees, elected officials, and the public they serve. For these reasons, DGS and the JRC is not considering the No Parking Garage alternative, and it is not further evaluated in this EIR.

7.4 ALTERNATIVES SELECTED FOR DETAILED ANALYSIS

The following alternatives evaluated in this Draft EIR.

- ▶ **Alternative 1: No Project–No Development Alternative** assumes no demolition of the existing Annex, no construction of a new building, no new underground parking, and no new visitor/welcome center. The project site would remain in its current condition.
- ▶ **Alternative 2: Capitol Annex Renovation Alternative** assumes that the Annex building would not be demolished; rather, it would remain in its existing location and would be fully renovated, as feasible. Construction of the new underground visitor/welcome center and parking garage would occur as in the proposed project.
- ▶ **Alternative 3: New Annex Building and Parking Garage with Two Basement Levels Alternative** assumes that the Annex would be fully demolished and reconstructed with two basement levels. Additionally, construction of the parking garage would include two underground levels. Construction of the new underground visitor/welcome center would occur as in the proposed project.

Further details on these alternatives, and an evaluation of environmental effects relative to the proposed Capitol Annex Project, are provided below.

7.4.1 Alternative 1: No Project-No Development Alternative

Under Alternative 1, the No Project–No Development Alternative, no actions would be taken by DGS and JRC and the project site would remain unchanged from current conditions. The existing Annex building and underground parking garage would not be demolished and would remain occupied and in their current conditions. The No Project – No Development Alternative would not meet the project objectives. However, as required by CEQA, the No Project – No Development Alternative is evaluated in this Draft EIR.

Although it is acknowledged that with the No Project–No Development Alternative, there would be no discretionary action by the State, and thus no impact, for purposes of comparison with the other action alternatives, conclusions for each technical area are characterized as “impacts” that are greater, similar, or less, to describe conditions that are worse than, similar to, or better than those of the proposed project.

LAND USE

The No Project – No Development Alternative would be consistent with the existing land uses identified in the State’s Capitol Area Plan, Sacramento Region Blueprint, 2016 MTS/SCS, City of Sacramento 2035 General Plan, and Central City Community Plan. In comparison, the proposed project would also be consistent with these plans. Implementation of the Capitol Annex Project would not result in any conflicts with environmental plans, goals, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts of the No Project–No Development Alternative would be **similar** to those of the proposed project with respect to land use.

TRANSPORTATION/CIRCULATION

Under the No Project–No Development Alternative no vehicular trips would be generated related to construction, there would be no change to existing vehicular trips, and the project’s location would remain in a transit priority zone. In comparison, operation of the proposed project would not add new trips to the roadway network in the vicinity, and would not cause degradation of LOS nor result in vehicle miles traveled that conflict with the Central City Specific Plan EIR. The project would result in small increases in construction-related trips, but existing facilities are more than adequate to accommodate the small increases. Construction of the project would temporarily disrupt parking and vehicle, pedestrian, and bike access in the vicinity of the project site, but these localized and temporary impacts would be minimized through implementation of a Construction Traffic Management Plan in accordance with City of Sacramento Code. All transportation and circulation impacts would be less than significant. Because the project would not result in significant transportation impacts, the No Project– No Development Alternative would not avoid any such impacts. However, because it would result in no additional trips and no transportation impacts, the No Project-No Development Alternative would result in transportation and circulation impacts that are **less** than the proposed project.

UTILITIES AND SERVICE SYSTEMS

The No Project–No Development Alternative would not result in additional demand for water, wastewater treatment, stormwater conveyance, electricity, or natural gas; nor would it result in the need for new infrastructure. By comparison, the proposed project would result in less-than-significant impacts to utility demand and infrastructure. Therefore, the No Project–No Development Alternative would not avoid any significant impacts. The No Project-No Development Alternative would result in **less** of an impact than the proposed project; however, it also precludes renovation of the building to increase energy and water efficiency.

AIR QUALITY

Because the No Project–No Development Alternative would involve no construction disturbance and no new vehicular trip generation, this alternative would not generate construction- or operations-related air emissions. By comparison, the proposed project would result in less-than-significant construction emissions and operational emissions would be the less than significant because there would be no change in occupants or related vehicular trips and the building would be more energy efficient. Nonetheless, implementation of the No Project–No Development Alternative would avoid construction disturbance and would not result in associated construction air quality impacts; therefore, this alternative would result in **less** of an impact than the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Because the No Project–No Development Alternative would involve no construction disturbances and no new vehicular trip generation, this alternative would not generate new construction- or operations-related greenhouse gas (GHG) emissions. By comparison, the project would result in less-than-significant construction and operational GHG emissions because both construction and operation of the renovated building would include GHG efficiency measures (e.g., proximity to transit, Zero Net Energy), consistent with State and local policies and regulations for the purpose of reducing GHG emissions and enabling achievement of the statewide reduction targets. The No Project–No Development Alternative would not result in any new construction-related GHG emissions or transportation-related GHG-emissions. Under this alternative, the State Capitol Building would continue to rely on the Central Plant for heating and cooling. Because the Central Plant boilers use natural gas for heating services, the No Project–No Development Alternative would result in greater GHG-emissions than the proposed project through continued heating service with the Central Plant. Overall, the No Project–No Development Alternative would result in **less** short-term GHG and climate change impacts than the proposed project because no construction activities would occur. However, the No Project–No Development Alternative also precludes the benefits of rebuilding the Annex and visitor/welcome center to be a GHG-emissions efficient building, resulting in **greater** GHG emissions in the long term.

ENERGY

Under the No Project–No Development Alternative no demolition or construction activities would occur. Therefore, there would be no change in energy use. Although no energy would be temporarily utilized for construction activities, this alternative would not result in a new Annex or visitor/welcome center with energy efficiency features. The proposed project would not result in wasteful, inefficient and unnecessary consumption of energy during construction, and operation of the project would improve overall building energy efficiency. In comparison to the proposed project, the No Project–No Development Alternative would avoid all energy use related to construction, resulting in **less** temporary energy use. However, this alternative would not realize energy savings from building improvements and would therefore result in **greater** energy usage over the long term.

NOISE AND VIBRATION

Under the No Project–No Development Alternative no demolition or construction activities would occur and no additional noise would be generated. Therefore, there would be no increase in potential noise conflicts under the No Project–No Development Alternative. By comparison, the proposed project would result in less-than-significant construction-generated noise and vibration levels and less-than-significant operation-related traffic noise. Although the project would not have significant noise impacts, the No Project–No Development Alternative would have no noise from construction activities; therefore, this alternative would result in **less** noise than the proposed project.

GEOLOGY AND SOILS

The No Project–No Development Alternative would leave the project site in its current state. There would be no potential for increased erosion or increased risk from seismic or soils hazards. Although the proposed project would demolish the existing Annex and result in construction of a new Annex, underground visitor/welcome center, and parking garage, it would not generate the potential for substantial soil erosion and would result in less-than-significant impacts related to seismic hazards, liquefaction, and expansive soils. Because of developed site conditions and required building standards, neither the proposed project nor the No Project – No Development Alternative would result in significant impacts related to geology and soils. Therefore, the No Project–No Development Alternative would result in impacts that are **similar** to the proposed project with regard to geology and soils

HAZARDS AND HAZARDOUS MATERIALS

The existing Annex building has identified hazardous materials such as asbestos and lead-based paint that would be left in place in the Annex under the No Project-No Development Alternative. In contrast, demolition and construction activities associated with the project could result in the exposure of construction workers and the public to hazardous material identified in the existing Annex. Contractors and the State are required to comply with federal, State, and local regulations intended to protect workers and the public from exposure to hazardous or contaminated materials and to ensure the appropriate remediation and disposal of these materials. Compliance with these regulations would prevent the project from resulting in a significant risk to construction workers or the public. Construction and operation of the project would also involve the storage, use, and transport of hazardous materials; however, such use would be done in compliance with federal, State, and local regulations. Although the proposed project would not result in any significant impacts related to hazardous materials and public health, the No Project-No Development Alternative results in no disturbance of existing hazardous materials or change in use of hazardous materials. Therefore, the No Project-No Development Alternative would result in **less** of an impact than the proposed project with regard to hazards and hazardous materials. However, the No Project–No Development Alternative would also foreclose the opportunity to appropriately remediate and dispose of hazardous materials in the existing Annex.

HYDROLOGY AND WATER QUALITY

Under the No Project–No Development Alternative, there would be no potential for construction-related releases of sediment and contaminants into surface waters or groundwater, and no changes in water demand, stormwater generation, drainage patterns, or flood risk. In comparison, the project site is already developed, and implementation of the Capitol Annex Project would result in less-than-significant impacts related to hydrology and water quality. Various stormwater pollution prevention devices and best management practices (BMPs) would be implemented, and the project would be required to comply with existing State and local regulations regarding the City’s combined storm sewer (CSS) and National Pollutant Discharge Elimination System (NPDES) permits. Implementation of BMPs and compliance with State and local requirements would result in similar runoff and water quality during storm events as under existing conditions. Because neither the project nor the No Project-No Development Alternative would result in any significant impacts related to hydrology and water quality, this alternative would result in impacts that are **similar** to the proposed project with regard to hydrology and water quality.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

The No Project–No Development Alternative would not involve any demolition or construction activities, thereby avoiding impacts related to the disturbance, destruction, or alteration of any known or as-yet-undiscovered/unrecorded pre-historic or historic archeological resources, tribal cultural resources, human remains, or historic architectural resources. In comparison, the proposed project would result in major ground disturbance that could cause potentially significant impacts related to disturbance of undiscovered/unrecorded subsurface archaeological resources, tribal cultural resources, and human remains. These impacts would be reduced to less-than-significant levels through implementation of mitigation measures. The proposed project would also disturb the

Historic Capitol Building and trees and landscaping in Capitol Park. Even after implementation of mitigation measures, historic structure impacts to the Capitol Complex (i.e. Historic Capitol, Annex, and Capitol Park) would be significant and unavoidable. Because the No Project–No Development Alternative would not include any ground disturbance, it has a lesser potential to result in the disturbance of as-yet undiscovered subsurface archaeological resources and/or human remains. Further, the No Project–No Development Alternative would avoid disturbance to the Historic Capitol and associated trees and landscaping. Therefore, the cultural resource impacts under the No Project–No Development Alternative would be **less** than the proposed project.

BIOLOGICAL RESOURCES

The No Project–No Development Alternative would not include any demolition or construction activities and would thus not disturb any existing on-site biological resources. However, the project site is currently developed with urban uses and lacks sensitive species or their habitat. Although the project site is a developed urban location the proposed project could result in potential disturbance of nesting raptors, bat roosts, or City trees, which would be mitigated to avoid disturbance to these resources, resulting in less-than-significant impacts. Because the No Project- No Development Alternative would avoid disturbance to the building and project site, it would avoid these potential impacts and would result in **less** potential biological resource impacts than the proposed project.

PUBLIC SERVICES AND RECREATION

The No Project–No Development Alternative would not generate increased demands for fire, police, or parks and recreation or school facilities. By contrast, the project's temporary closure of portions of Capitol Park during construction would create temporary increases in demand for surrounding parks and recreation facilities. However, the proposed project would not generate long-term increased demands for fire, police, parks and recreation, or school facilities. Because the project would result in less-than-significant impacts on public services, the No Project–No Development Alternative would not reduce or avoid any significant impacts related to this environmental issue area. However, implementation of the project would create a temporary impact on recreation facilities during construction that would not occur under the No Project–No Development Alternative. Therefore, the No Project- No Development Alternative would result in **less** of an impact than the proposed project with regard to public services and recreation.

AESTHETICS, LIGHT, AND GLARE

Under the No Project–No Development Alternative, no new development would occur. There would be no alteration of the visual character of the project site; views of the area from surrounding vantage points would not change; and no new sources of light, glare, or shadow would be created. In comparison, the proposed project would result in demolition and reconstruction of the Annex building, as well as construction of an underground visitor/welcome center and parking garage. The proposed project would temporarily disrupt views of the Historic Capitol and Capitol Park during construction. However, because the project is located in an urban, developed area of downtown Sacramento, the local visual character after project development, as experienced by viewer groups in the area, would not be substantially altered. Potential scenic vista impacts at the State Capitol could occur through development of the visitor/welcome center entrance, but would be reduced to a less-than-significant impact through the implementation of mitigation measures. Because the project would not result in any significant impacts related to aesthetics, light, and glare, the No Project- No Development Alternative would not avoid any significant impacts. However, the No Project–No Development Alternative would make no changes to the visual character of the site and would avoid both short-term and long-term impacts on a scenic vista; therefore, the No Project- No Development Alternative would result in **less** of an impact than the proposed project with regard to visual impacts.

7.4.2 Alternative 2: Capitol Annex Renovation Alternative

Alternative 2, the Capitol Annex Renovation Alternative, is the same as the proposed project in terms of construction of the new visitor/welcome center and parking garage. However, Alternative 2 would not demolish the existing Annex, but rather would close the Annex, vacate the occupants, and renovate the existing building to address critical fire and life-safety upgrades. For additional office space under Alternative 2, the existing atrium in the Annex would be converted to provide approximately 30,000 square feet of office uses. The basement level used for parking could also be converted to other uses because parking would be moved to the new underground parking structure. However, even with this extra space, this alternative would provide approximately 100,000 square feet less space in the Annex than the proposed project. Therefore, all facilities and functions included in the proposed project could not be accommodated in the renovated building. This alternative does not include construction of, or use of, another building to house the "lost" facilities and functions. As with the proposed project, the legislature and executive branch would be temporarily housed in the 10th and O Street Office Building that is under construction, and they would reoccupy the Annex after renovation is complete.

LAND USE AND PLANNING

Like the proposed project, the Capitol Annex Renovation Alternative would not alter the existing land use and would not result in any conflicts with environmental plans, goals, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, land use impacts under the Capitol Annex Renovation Alternative would be **similar** to those of the proposed project.

TRANSPORTATION/CIRCULATION

Similar to the proposed project, Alternative 2 would generate construction-related vehicular trips for renovation activities and would result in no change to operational vehicular trips or transit. Construction of either the proposed project or Alternative 2 would temporarily disrupt vehicle trips as well as parking, pedestrian, vehicle, and bike access in the vicinity of the project site. However, these localized and temporary impacts would be minimized through implementation of a Construction Traffic Management Plan in accordance with City of Sacramento Code. Alternative 2 would have **similar** construction- and operation-related transportation impacts as the proposed project.

UTILITIES AND SERVICE SYSTEMS

Alternative 2 would generate similar demand for water, wastewater treatment, stormwater conveyance, and electricity; it would result in a similar need for new infrastructure. Alternative 2 would include renovation of existing utility systems, which would include similar water efficiency features in the building. Similar to the proposed project, Alternative 2 would have no new demand for potable water, stormwater/surface-runoff management, wastewater treatment, and wastewater conveyance infrastructure, and the efficiency measures through Annex renovations could potentially reduce existing demand. Therefore, Alternative 2 would result in **similar** impacts on utilities than the proposed project.

AIR QUALITY

Because Alternative 2 would reduce demolition activities and would involve reduced ground disturbance for construction, the construction-related air emissions would be less than the proposed project's less-than-significant emissions. Similar to the proposed project, operation of Alternative 2 would not result in additional employees or new vehicular trip generation and would result in similar less-than-significant operational air emissions. Because Alternative 2 involves reduced construction, compared to the proposed project, the Capitol Annex Renovation Alternative would result in **less** impacts to air quality than the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Alternative 2 would involve similar, though slightly reduced, construction disturbances and would implement similar GHG efficiency measures; therefore, the construction-related GHG emissions would be less than the proposed project's less-than-significant GHG emissions. This alternative would have similar less-than-significant operations-related GHG emissions because, similar to the proposed project, Alternative 2 would not include additional employees, would not result in new vehicular trip generation, and would implement energy efficiency measures. Therefore, because of the reduced construction emissions, Alternative 2 would result in **less** GHG emissions than the proposed project.

ENERGY

Alternative 2 would involve similar, though slightly reduced, energy use during construction. Renovation of the Annex building is anticipated to achieve similar energy efficiency features as the proposed project, although overall energy usage may be less because of the smaller square footage of the building. Neither the proposed project nor Alternative 2 would result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. However, Alternative 2 would result in **less** energy usage than the proposed project.

NOISE AND VIBRATION

Because Alternative 2 would not fully demolish and reconstruct the Annex building, it would reduce, but would not fully avoid, the use of heavy-duty vibration-generating equipment, such as drilling of piles. Like the proposed project, Alternative 2 would implement a vibration control plan to reduce vibration impacts and potential damage to the Historic Capitol to a less-than-significant level. Similar to the proposed project, Alternative 2 would not include additional employees and would not result in new vehicular trip generation. Additionally, like the proposed project, this alternative would not change operation-related noise at the project site. Because Alternative 2 would not involve complete demolition and reconstruction of the Annex, **less** construction-related noise and vibration impacts would occur under this alternative compared to that of the proposed project.

GEOLOGY AND SOILS

Although, Alternative 2 would reduce excavation of soils through Annex building renovations rather than complete demolition/reconstruction, the Capitol Annex Renovation Alternative would still include construction of the visitor/welcome center and parking garage. Because this alternative would result in less construction compared to the proposed project, it reduce the less-than-significant construction-related erosion impacts, but the potential increase in the risk of exposure to injury or property damage because of a seismic event would remain the same. Because of the same existing site conditions for both alternatives and required compliance with building standards, neither the project nor Alternative 2 would result in significant impacts related to geology and soils. Therefore, Alternative 2 and the project would have **similar** impacts related to geology and soils.

HAZARDS AND HAZARDOUS MATERIALS

The existing Annex has identified hazardous materials such as asbestos and lead-based paint that would be abated in compliance with federal, State, and local regulations under either the proposed project or Alternative 2. In addition, under either the proposed project or Alternative 2, construction and operation would involve the storage, use, and transport of hazardous materials; however, such use would be done in compliance with federal, State, and local regulations. Compliance with regulations would prevent the project or Alternative 2 from resulting in a significant risk to construction workers or the public. Therefore, Alternative 2 would result in **similar** hazardous materials impacts as the proposed project.

HYDROLOGY AND WATER QUALITY

Alternative 2 would require less excavation of soils during construction, which would reduce the potential for construction-related releases of sediment and contaminants into surface waters or groundwater in comparison to the proposed project. Because the project site is already developed and would be restored to its original conditions once operational, long-term changes to runoff and water quality resulting from the project or Alternative 2 are considered less than significant. Similarly, various stormwater pollution prevention devices and BMPs would be implemented for either the proposed project or Alternative 2, and both would be required to comply with existing State and local regulations regarding the City's CSS and NPDES permits. Implementation of BMPs and compliance with State and local requirements would result in similar runoff and water quality during storm events as under existing conditions. Therefore, Alternative 2 would result in **similar** less-than-significant impacts to the project with regard to hydrology and water quality.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Alternative 2 would involve reduced ground disturbance compared to the proposed project because the Annex building would not be fully demolished and a new, larger footprint building constructed. However, Alternative 2 would have the same potential to result in the destruction, or alteration of any known or as-yet-undiscovered/unrecorded pre-historic or historic archeological resources, tribal cultural resources, and human remains because of construction of the underground visitor/welcome center and parking garage. These impacts would be reduced to less-than-significant levels through mitigation under either the proposed project or Alternative 2. Because Alternative 2 would renovate the existing Annex, it could avoid the project's significant and unavoidable historic structure impact related to the Historic Capitol building. Therefore, the cultural resource impacts under the Capitol Annex Renovation Alternative would be **less** than the proposed project.

BIOLOGICAL RESOURCES

Alternative 2 would renovate the existing Annex and affect the same general project site as the proposed project. The project site is currently developed with urban uses and lacks sensitive species or their habitat. As with the proposed project, the project has the potential to disturb nesting raptors, bat roosts, or City street trees, which would be mitigated to avoid disturbance to these resources, resulting in less-than-significant impacts. Although avoiding complete demolition of the Annex building may reduce some construction disturbance on the project site, overall, the Capitol Annex Renovation Alternative would have **similar** biological resource impacts as the proposed project.

PUBLIC SERVICES AND RECREATION

Similar to the project, Alternative 2 would not include any new or increased employees. Under both the proposed project and the Alternative 2, increased demands for public services would be less than significant. Similar to the project, Alternative 2 would include private security at the project site during construction and would temporarily disrupt recreational facilities at the west end of Capitol Park. However, because Alternative 2 would involve less construction and overall disturbance of Capitol Park, this alternative could reduce the incremental increase in need for additional security and disruption to recreational facilities that would occur under the proposed project. Therefore, impacts of this alternative on public services are considered to be **less** than those of the project.

AESTHETICS, LIGHT, AND GLARE

Both Alternative 2 and the proposed project would involve construction of a new underground visitor/welcome center and underground parking garage, which would result in similar construction-related visual impacts. Alternative 2 would avoid the complete demolition and reconstruction of the Annex, because the existing building would be retained and renovated, but would still have construction activities that would be visible at the building. This alternative would result in similar light, glare, and shadow impacts because the Annex building size would not change

substantially and building materials and lighting would be implemented similar to the proposed project. Through implementation of mitigation measures, neither the project nor the Alternative 2 would result in any significant impacts related to aesthetics, light, and glare; therefore, the Capitol Annex Renovation Project Alternative would have **similar** impacts as the proposed project.

7.4.3 Alternative 3: New Annex Building and Parking Garage with Two Basement Levels Alternative

The proposed project includes a single below-grade basement level for the new Annex building. Similar to the proposed project, this alternative assumes that the Annex would be fully demolished and reconstructed with full connections to the Capitol. However, this alternative proposes that the new Annex would have two basement levels. In addition to the two Annex basement levels, the parking garage would also include two underground parking levels. Construction of the new underground visitor/welcome center to the west would still occur as in the proposed project. This alternative would increase the total interior square footage available for the new Annex building, or allow for a smaller building footprint while maintaining the total square footage assumed for the proposed project. A smaller footprint for the parking structure could also be possible.

This alternative would increase project costs and long-term building maintenance, because as identified in Section 4.9, "Geology and Soils," depth to groundwater in the downtown Sacramento area varies seasonally and groundwater can be less than 10 feet below the ground surface. A second basement level and two-level underground parking would encounter groundwater, requiring dewatering during construction, special-engineering techniques to minimize groundwater intrusion into the lower basement levels, and continuous collection and pumping of groundwater away from the basement levels. Dewatering would need to be continuously monitored and managed because if too much dewatering occurs, soils underlying the foundations of the adjacent Historic Capitol could become too dry and result in impacts to soil structure and stability which could result in building settling and cracking. An additional basement and parking garage level would substantially increase construction costs and require ongoing monitoring, maintenance, and costs to pump groundwater away from the lower basement levels as part of ongoing building operations. Although few buildings in the project area contain a second basement level because of these challenges, construction at these depths is feasible and is considered here to provide an alternative that could reduce the Annex and parking structure footprint while also meeting the project objectives.

LAND USE AND PLANNING

Like the proposed project, Alternative 3 would not alter the existing land use and would not result in any conflicts with environmental plans, goals, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, land use impacts under Alternative 3 would be **similar** to those of the proposed project.

TRANSPORTATION/CIRCULATION

Similar to the proposed project, Alternative 3 would generate construction-related vehicular trips for renovation activities and would result in no change to operational vehicular trips or transit. Construction of either the proposed project or Alternative 3 would temporarily disrupt vehicle trips as well as parking, pedestrian, and bike access in the vicinity of the project site. However, these localized and temporary impacts would be minimized through implementation of a Construction Traffic Management Plan in accordance with City of Sacramento Code. Alternative 3 would have **similar** construction- and operation-related transportation impacts as the proposed project.

UTILITIES AND SERVICE SYSTEMS

Alternative 3 would generate similar demand for water, wastewater treatment, stormwater conveyance, and electricity; it would result in a similar need for new infrastructure. Alternative 3 would involve upgrades to existing utility systems, which would include similar water efficiency features in the building. Similar to the proposed project,

Alternative 3 would have no new demand for potable water, stormwater/surface-runoff management, wastewater treatment, and wastewater conveyance infrastructure, and the efficiency measures through Annex renovations could potentially reduce existing demand. Therefore, Alternative 3 would result in **similar** impacts on utilities than the proposed project.

AIR QUALITY

Similar to the proposed project, Alternative 3 would involve the same level of demolition through complete removal of the Annex. Alternative 3 would also involve similar levels of construction/ground disturbance through construction of a new Annex with a reduced building footprint and greater basement depth. Therefore, the construction-related air emissions would be similar to the proposed project's less-than-significant emissions. Similar to the proposed project, operation of Alternative 3 would not result in additional employees or new vehicular trip generation and would result in similar less-than-significant operational air emissions. Because Alternative 3 would involve similar demolition and construction activities, compared to the proposed project, the New Annex Building with Two Basement Levels Alternative would result in **similar** impacts to air quality than the proposed project.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Because Alternative 3 would involve similar construction disturbances and would implement similar GHG efficiency measures, the construction-related GHG emissions would be similar to the proposed project's less-than-significant GHG emissions. This alternative would also have similar less-than-significant operations-related GHG emissions because, similar to the proposed project, Alternative 3 would not include additional employees, would not result in new vehicular trip generation, and would implement energy efficiency measures. Therefore, Alternative 3 would result in **similar** less-than-significant GHG emissions as the proposed project.

ENERGY

Alternative 3 would involve similar, though slightly reduced, energy use during construction. Reconstruction of the Annex building is anticipated to achieve similar energy efficiency features as the proposed project. Neither the proposed project nor Alternative 3 would result in wasteful, inefficient and unnecessary consumption of energy during construction or operation. Alternative 3 would result in **similar** energy use as the proposed project.

NOISE AND VIBRATION

Because the Alternative 3 would demolish and reconstruct the Annex building, it would involve the use of heavy-duty vibration-generating equipment, such as drilling of piles. Like the proposed project, Alternative 3 would implement a vibration control plan to reduce vibration impacts and potential damage to the Historic Capitol to a less-than-significant level. Similar to the proposed project, Alternative 3 would not include additional employees and would not result in new vehicular trip generation. Additionally, like the proposed project, this alternative would not change operation-related noise at the project site. Because Alternative 3 would involve demolition and reconstruction of the Annex, **similar** construction-related noise and vibration impacts would occur under this alternative compared to that of the proposed project.

GEOLOGY AND SOILS

Alternative 3 would increase excavation of soils for two additional basement levels at the new Annex building and two levels of underground parking. As stated above, Alternative 3 would still include construction of the visitor/welcome center as described in the proposed project. Although construction disturbance would be similar to the proposed project, the additional depth of excavation associated with the Annex and parking garage would likely require increased groundwater pumping and continuous maintenance and monitoring of dewatering systems due to fluctuating groundwater levels. If too much dewatering occurs, soils underlying the foundations of the adjacent

Historic Capitol could become too dry and result in impacts to soil structure and stability which could result in building settling and cracking. Additionally, Alternative 3 would increase the potential for construction-related erosion impacts on nearby buildings and structures. However, the potential increase in the risk of exposure to injury or property damage because of a seismic event would remain the same. Both alternatives would be required to comply with building standards; therefore, neither the project nor Alternative 3 would result in significant impacts related to geology and soils. However, Alternative 3 would have **greater** impacts related to geology and soils.

HAZARDS AND HAZARDOUS MATERIALS

The existing Annex has identified hazardous materials such as asbestos and lead-based paint that would be abated in compliance with federal, State, and local regulations under either the proposed project or Alternative 3. In addition, under either the proposed project or Alternative 3, construction and operation would involve the storage, use, and transport of hazardous materials; however, such use would be done in compliance with federal, State, and local regulations. Compliance with regulations would prevent the project or Alternative 3 from resulting in a significant risk to construction workers or the public. Therefore, Alternative 3 would result in **similar** hazardous materials impacts as the proposed project.

HYDROLOGY AND WATER QUALITY

Alternative 3 would require greater excavation of soils during construction as well as groundwater pumping during and after construction. These activities would increase the potential for construction-related releases of sediment and contaminants into surface waters or groundwater in comparison to the proposed project. Because the project site is already developed and would be restored to its original conditions once operational, long-term changes to runoff and water quality resulting from the project or Alternative 3 are considered less than significant. Similarly, various stormwater pollution prevention devices and BMPs would be implemented for either the proposed project or Alternative 3, and both would be required to comply with existing State and local regulations regarding the City's CSS and NPDES permits. Implementation of BMPs and compliance with State and local requirements would result in similar runoff and water quality during storm events as under existing conditions. Therefore, Alternative 3 would result in **similar** less-than-significant impacts to the project with regard to hydrology and water quality.

ARCHAEOLOGICAL, HISTORICAL, AND TRIBAL CULTURAL RESOURCES

Alternative 3 would involve a reduced footprint but greater depth of excavation for the new Annex building and parking garage, as well as the same level of ground disturbance through construction of the underground visitor/welcome center. Due to increased excavation, Alternative 3 would have a greater potential to result in the destruction, or alteration of any known or as-yet-undiscovered/unrecorded pre-historic or historic archeological resources, tribal cultural resources, and human remains through increased excavation depths. These impacts would be reduced to less-than-significant levels through mitigation under either the proposed project or Alternative 3. In addition, because Alternative 3 would demolish and reconstruct the Annex, it would result in similar significant and unavoidable historic structure impacts. Because of the increased potential for effects on subsurface resources, cultural resource impacts under Alternative 3 would be **greater** than the proposed project.

BIOLOGICAL RESOURCES

Alternative 3 would reduce the footprint of the new Annex building and parking structure as compared to the proposed project. The project site is currently developed with urban uses and lacks sensitive species or their habitat. As with the proposed project, Alternative 3 has the potential to disturb nesting raptors, bat roosts, or City street trees, which would be mitigated to avoid disturbance to these resources, resulting in less-than-significant impacts. Although reducing the footprint of the Annex building may reduce some construction disturbance on the project site, overall, Alternative 3 would have **similar** biological resource impacts as the proposed project.

PUBLIC SERVICES AND RECREATION

Similar to the project, Alternative 3 would not include any new or increased employees. Under both the proposed project and the Alternative 3, increased demands for public services would be less than significant. Similar to the project, Alternative 3 would include private security at the project site during construction and would temporarily disrupt recreational facilities at the west end of Capitol Park. Because Alternative 3 would reduce the footprint of the new Annex building it could reduce overall disturbance of Capitol Park if the size of construction work areas was also reduced. However, this alternative could have a longer period of construction disturbance due to increased excavation. Overall, Alternative 3 would have similar impacts on recreational experience as would occur under the proposed project. Therefore, impacts of this alternative on public services are considered to be **similar** to the proposed project.

AESTHETICS, LIGHT, AND GLARE

Both Alternative 3 and the proposed project would involve construction of a new underground visitor/welcome center and underground parking garage, which would result in similar construction-related visual impacts. While Alternative 3 would reduce the footprint of the new Annex building as compared to the proposed project, this alternative would include two new basement levels and would therefore result in a similar building size to the proposed project. This alternative would result in similar light, glare, and shadow impacts because the Annex building size would not substantially change and building materials and lighting would be implemented similar to the proposed project. Through implementation of mitigation measures, neither the project nor the Alternative 3 would result in any significant impacts related to aesthetics, light, and glare. Therefore, the Capitol Annex Renovation Project Alternative would have **similar** impacts as the proposed project.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Because the No Project–No Development Alternative (described above in Section 7.4.1) would avoid all adverse impacts resulting from construction and operation of the Capitol Annex Project analyzed in Chapter 4, it is the environmentally superior alternative. However, the No Project–No Development Alternative would not meet the objectives the project as presented above in Section 7.2.

When the environmentally superior alternative is the No Project Alternative, the State CEQA Guidelines (Section 15126[d][2]) require selection of an environmentally superior alternative from among the other action alternatives evaluated. As illustrated in Table 7-1, below, the Capitol Annex Renovation Alternative would be environmentally superior action alternative because although the environmental impacts would be similar to the proposed project, Alternative 2 would fully renovate the existing Annex, and avoid the project's significant and unavoidable historic structure impact related to the Historic Capitol building. However, this alternative would not provide an Annex structure large enough to meet the project objectives, such as providing meeting space for legislative and executive functions of sufficient size to support efficient performance of State business or improved public access to the Capitol.

Table 7-1 Summary of Environmental Effects of the Alternatives Relative to the Proposed Capitol Annex Project

Environmental Topic	Proposed Project	Alternative 1: No Project – No Development Alternative	Alternative 2: Capitol Annex Renovation Alternative	Alternative 3: New Annex Building and Parking Garage with Two Basement Levels Alternative
Land Use	Less than Significant	Similar	Similar	Similar
Transportation and Circulation	Less than Significant	Less	Similar	Similar
Utilities and Service Systems	Less than Significant	Less	Similar	Similar
Air Quality	Less than Significant	Less	Less	Similar
Greenhouse Gas Emissions and Climate Change	Less than Significant	Short-term Less Long-term Greater	Less	Similar
Energy	Less than Significant	Short-term Less Long-term Greater	Less	Similar
Noise	Less than Significant with Mitigation	Less	Less	Similar
Geology and Soils	Less than Significant	Similar	Similar	Greater
Hazards and Hazardous Materials	Less than Significant	Less	Similar	Similar
Hydrology and Water Quality	Less than Significant	Similar	Similar	Similar
Archaeological, Historical, and Tribal Cultural Resources	Significant and Unavoidable	Less	Less	Greater
Biological Resources	Less than Significant with Mitigation	Less	Similar	Similar
Public Services and Recreation	Less than Significant	Less	Less	Similar
Aesthetics, Light, and Glare	Less than Significant with Mitigation	Less	Similar	Similar

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8 REFERENCES

Chapter 1, “Introduction”

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

DGS. See California Department of General Services.

Chapter 2, “Executive Summary”

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

DGS. See California Department of General Services.

Chapter 3, “Project Description”

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

DGS. See California Department of General Services.

Sacramento County. 2015. Building footprints of structures along the Sacramento Regional Transit corridor in the County of Sacramento, California. Available: <http://purl.stanford.edu/qf859gw0670>. Accessed November 30, 2016.

Chapter 4, “Affected Environment, Environmental Consequences, and Mitigation Measures”

Section 4.1, “Approach to the Environmental Analysis”

California Department of Conservation. 2017. Farmland Mapping and Monitoring Program: Sacramento County Important Farmland 2016. Division of Land Resource Protection.

California Division of Mines and Geology. 1999. Plate 3: Mineral Land Classification Map of PCC-Grade Aggregate Resources in Sacramento County. In DMG Open File Report 99-09.

California Employment Development Department. 2019. Sacramento—Roseville—Arden-Arcade Metropolitan Statistical Area (MSA) (El Dorado, Placer, Sacramento, and Yolo Counties). Seasonal gains in government led month-over job growth. Data produced by the Labor Market Information Division. Available: <https://www.labormarketinfo.edd.ca.gov/>. Accessed April 30, 2019.

EDD. See California Employment Development Department.

Section 4.2, “Land Use and Planning”

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

———. 2015 (January). *Capitol Area Plan Progress Report*. Real Estate Services Division, West Sacramento, CA. Prepared by Asset Planning and Enhancement Branch.

City of Sacramento. 2014. *Land Use and Urban Form Diagram*. Map Revised June 36, 2014.

DGS. See California Department of General Services.

Joint Committee on Rules. 2017 (December). *California State Capitol Annex Project Planning Study*. Prepared by CSHQA, Inc., West Sacramento, CA.

Office of the Governor. 2016. *2017 California Five-Year Infrastructure Plan*. Sacramento, CA.

SACOG. See Sacramento Area Council of Governments.

Sacramento Area Council of Governments. 2007. *Discussion Draft Blueprint Preferred Scenario for 2050 Map and Growth Principles*. Available: http://www.sacregionblueprint.org/sacregionblueprint/the_project/principles.pdf. Accessed August 26, 2019.

———. 2016 (February 18). *2016 Metropolitan Transportation Plan/Sustainable Communities Strategy*.

Section 4.3, “Transportation and Circulation”

City of Sacramento. 2014 (August). *City of Sacramento 2035 General Plan Update Draft Master Environmental Impact Report*. Sacramento, CA. Prepared by Ascent Environmental, Sacramento, CA.

———. 2018 (April 19). *Central City Specific Plan Environmental Impact Report*. Sacramento, CA. Prepared by ESA, Sacramento, CA.

SACOG. See Sacramento Area Council of Governments.

Sacramento Area Council of Governments. 2016. *Final Environmental Impact Report for the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy*. State Clearinghouse #2014062060. Sacramento, CA.

Transportation Research Board. 2016. *Highway Capacity Manual: A Guide for Multimodal Mobility Analysis*. Sixth edition.

TRB. See Transportation Research Board.

Section 4.4, “Utilities and Service Systems”

California Department of General Services. 2015 (January). *Capitol Area Plan Progress Report*. Real Estate Services Division, West Sacramento, CA. Prepared by Asset Planning and Enhancement Branch.

California Department of Resources Recycling and Recovery. 2019a. Jurisdiction Disposal Tonnage Trend: Sacramento. Available: <https://www2.calrecycle.ca.gov/LGCentral/AnnualReporting/ReviewReports/DisposalTonnageTrend>. Accessed June 18, 2019.

———. 2019b. Solid Waste Facility Listing/Details: L and D Landfill (34AA0020). Available: <https://www2.calrecycle.ca.gov/SWFacilities/Directory/34-AA-0020/Detail/>. Accessed January 18, 2019.

———. 2019c. Solid Waste Facility Listing/Details: Sacramento County Landfill (Kiefer) (34AA0001). Available: <https://www2.calrecycle.ca.gov/swfacilities/Directory/34-AA-0001>. Accessed June 18, 2019.

———. 2019d. Solid Waste Facility Listing/Details: Elder Creek Transfer and Recovery (34AA0033). Available: <https://www2.calrecycle.ca.gov/swfacilities/Directory/34-AA-0033>. Accessed February 27, 2017.

CalRecycle. See California Department of Resources Recycling and Recovery.

Central Valley Regional Water Quality Control Board. 2015 (April). *Order R5-2015-0045, NPDES No. CA0079111, Waste Discharge Requirements for the City of Sacramento Combined Wastewater Collection and Treatment System, Sacramento County*. Rancho Cordova, CA.

Central Valley RWQCB. See Central Valley Regional Water Quality Control Board.

City of Sacramento. 2013 (March). *City of Sacramento Combined Sewer System Rehabilitation and Improvement Plan—Downtown Combined Sewer Upsizing Project (SCH: 1996082013), Addendum to Environmental Impact Report*.

- . 2014 (August). Chapter 4, Utilities. In *Sacramento 2035 General Plan Background Report*. Public review draft.
- . 2016a (June). *City of Sacramento 2015 Urban Water Management Plan*.
- . 2016b (June). *City of Sacramento Non-Disposal Facility Element*.
- . 2019. Wastewater Dashboard—All Currently Funded Projects. Available: <https://www.cityofsacramento.org/-/media/Corporate/Files/DOU/Sac-Water-Works/Wastewater-Project-Updates/Wastewater-Summary.pdf?la=en>. Accessed August 20, 2019.
- City of Sacramento Department of Utilities. 2018 (May 15). Utility service bill to California Department of General Services for 1010 L Street.
- DGS. See California Department of General Services.
- Griffith, Joel. Capital outlay program manager. California Department of General Services, Sacramento, CA. July 1, 2019—email conversation with Kirsten Burrowes of Ascent Environmental regarding utility information and natural gas services to the Capitol building.
- Hollingsworth, Geanie. Facilities director of the Assembly Committee on Rules, Sacramento, CA. April 29, 2019—email conversation with Ascent Environmental regarding existing number of Capitol Annex employees.
- Regional San. See Sacramento Regional County Sanitation District.
- Sacramento Municipal Utility District. 2019. Electric service in downtown Sacramento. Available: <https://www.smud.org/en/Business-Solutions-and-Rebates/Design-and-Construction-Services/smud.org/-/media/Documents/Business-Solutions-and-Rebates/Design-and-Constructions-Services/dcs-Electric-Service-in-Downtown-Sacramento.ashx?h=16&thn=1&w=16&hash=53E4BA66F6858E06923F89F77ACDCEF7>. Accessed July 15, 2019.
- Sacramento Regional County Sanitation District. 2018. About Us. Available: <https://www.regionalsan.com/about-us>. Accessed September 19, 2018.
- SMUD. See Sacramento Municipal Utility District.
- ## Section 4.5, “Air Quality”
- California Air Resources Board. 2000. (October). *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. Available: <https://www.arb.ca.gov/diesel/documents/rrpFinal.pdf>. Accessed April 18, 2019.
- . 2003. *HARP User Guide*. Sacramento, CA.
- . 2009. *The California Almanac of Emissions and Air Quality—2009 Edition*. Available: <https://www.arb.ca.gov/aqd/almanac/almanac09/almanac09.htm>. Accessed April 18, 2019.
- . 2013. *The California Almanac of Emissions and Air Quality—2013 Edition*. Available: <http://www.arb.ca.gov/aqd/almanac/almanac13/almanac13.htm>. Accessed April 18, 2019.
- . 2016 (May 4). Ambient Air Quality Standards. Available: <https://www.arb.ca.gov/research/aaqs/aaqs2.pdf>. Accessed January 4, 2017.
- . 2019. iADAM: Air Quality Data Statistics. Available: <https://www.arb.ca.gov/adam>. Accessed April 17, 2019.
- CARB. See California Air Resources Board.
- EPA. See U.S. Environmental Protection Agency.
- OEHHA. See Office of Environmental Health Hazard Assessment.
- Office of Environmental Health Hazard Assessment. 2015 (February). *Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*. Available: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>. Accessed April 18, 2019.

- Sacramento Metropolitan Air Quality Management District. 2015 (May). SMAQMD Thresholds of Significance Table. Available: <http://airquality.org/LandUseTransportation/Documents/CH2ThresholdsTable5-2015.pdf>. Accessed April 18, 2019.
- . 2016. *Air Quality Pollutants and Standards*. Available: <http://www.airquality.org/Air-Quality-Health/Air-Quality-Pollutants-and-Standards>. Accessed April 18, 2019.
- . 2018 (September). *Guide to Air Quality Assessment in Sacramento County*. Available: <http://airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>. Accessed April 18, 2019.
- . 2019 (April 25). Friant Ranch Interim Recommendation. Available: <http://www.airquality.org/LandUseTransportation/Documents/FriantInterimRecommendation.pdf>. Accessed July 23, 2019.
- SMAQMD. See Sacramento Metropolitan Air Quality Management District.
- U.S. Environmental Protection Agency. 2012 (April). 2008 Ground-Level Ozone Standards: Region 9 Final Designations. Available: <https://www3.epa.gov/region9/air/ozone/index.html>. Accessed January 4, 2017.
- . 2016. *Criteria Air Pollutants*. Available: <https://www.epa.gov/criteria-air-pollutants#self>. Last updated October 19, 2016. Accessed April 18, 2019.
- Western Regional Climate Center. 2002. Prevailing Wind Direction. Available: https://wrcc.dri.edu/Climate/comp_table_show.php?stype=wind_dir_avg. Accessed April 17, 2019.
- . 2016. Sacramento Executive AP, California (047630) *Period of Record Monthly Climate Summary—Period of Record: 11/10/1941 to 06/09/2016*. Available: <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca7630>. Accessed April 17, 2019.
- WRCC. See Western Regional Climate Center.

Section 4.6, “Greenhouse Gas Emissions and Climate Change”

- California Air Pollution Control Officers Association. 2016. California Emissions Estimator Model (CalEEMod), Version 2016.3.2. Available: <http://www.caleemod.com/>. Accessed April 18, 2019.
- California Air Resources Board. 2013. *Facts about California's Sustainable Communities Plans*. Available: http://www.arb.ca.gov/cc/sb375/sacog_fact_sheet.pdf. Last revised October 2, 2013. Accessed April 2017.
- . 2016a (October). *2016 ZEV Action Plan*. Available: https://www.gov.ca.gov/wp-content/uploads/2017/09/2016_ZEV_Action_Plan.pdf. Accessed April 18, 2019.
- . 2016b. Facts about the Advanced Clean Cars Program. Available: https://www.arb.ca.gov/msprog/zevprog/factsheets/advanced_clean_cars_eng.pdf. Accessed April 18, 2019.
- . 2017 (November). *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed April 18, 2019.
- . 2018a. SB 375 Regional Greenhouse Gas Emissions Reduction Targets. Approved by the California Air Resources Board March 22, 2018. Available: <https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf>. Accessed April 18, 2019.
- . 2018b (July 11). *California Greenhouse Gas Emission Inventory*. 2018 edition. Available: https://www.arb.ca.gov/cc/inventory/data/data.htm?utm_medium=email&utm_source=govdelivery. Accessed April 18, 2019.
- . 2018c (July 11). *California Greenhouse Gas Emissions for 2000 to 2016: Trends of Emissions and Other Indicators*. Available: https://www.arb.ca.gov/cc/inventory/pubs/reports/2000_2016/ghg_inventory_trends_00-16.pdf. Accessed April 18, 2019.

- California Department of Resources Recycling and Recovery. 2019. Jurisdiction Diversion/Disposal Rate Detail: Sacramento 2017. Available: <http://www.calrecycle.ca.gov/LGCentral/Reports/jurisdiction/diversiondisposal.aspx>. Accessed April 5, 2017.
- California Energy Commission. 2012. *Our Changing Climate 2012: Vulnerability & Adaptation to the Increasing Risks from Climate Change in California*. Available: <http://www.energy.ca.gov/2012publications/CEC-500-2012-007/CEC-500-2012-007.pdf>. Accessed April 18, 2019.
- . 2018 (March). 2019 Building Energy Efficiency Standards: Frequently Asked Questions. Available: http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf. Accessed April 18, 2019.
- . 2019 Cal-Adapt Annual Averages Tool: maximum temperature and precipitation for Sacramento area. Available: <http://cal-adapt.org/tools/annual-averages/>. Accessed April 17, 2019.
- California Natural Resources Agency. 2017 (May). *Draft Report: Safeguarding California Plan: 2017 Update*. Available: <http://resources.ca.gov/wp-content/uploads/2017/05/DRAFT-Safeguarding-California-Plan-2017-Update.pdf>. Accessed April 18, 2019.
- . 2018 (January). *Safeguarding California Plan: 2018 Update*. Available: <http://resources.ca.gov/docs/climate/safeguarding/update2018/safeguarding-california-plan-2018-update.pdf>. Accessed April 18, 2019.
- CalRecycle. See California Department of Resources Recycling and Recovery.
- CARB. See California Air Resources Board.
- CAPCOA. See California Air Pollution Control Officers Association.
- CEC. See California Energy Commission.
- City of Sacramento. 2012 (January 13). *Sacramento Climate Action Plan*. Final draft. Available: http://ascentenvironmental.com/files/9714/0537/0505/Sacramento_CAP_Final_Draft.pdf. Accessed April 18, 2019.
- . 2015. Environmental Resources Element. In *Sacramento 2035 General Plan*. Adopted March 3, 2015. Sacramento, CA.
- CNRA. See California Natural Resources Agency.
- EPA. See U.S. Environmental Protection Agency.
- Governor's Office of Planning and Research. 2017 (November). *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Available: http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed April 18, 2019.
- Intergovernmental Panel on Climate Change. 2013. Chapter 6, Carbon and Other Biogeochemical Cycles. Pages 465–570 in *Climate Change 2013: The Physical Science Basis*. Working Group I Contribution to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Available: http://www.climatechange2013.org/images/report/WG1AR5_ALL_FINAL.pdf. Accessed April 18, 2019.
- . 2014. *Climate Change 2014 Synthesis Report: Summary for Policymakers*. Available: https://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf. Accessed April 18, 2019.
- IPCC. See Intergovernmental Panel on Climate Change.
- OPR. See Governor's Office of Planning and Research.
- Sacramento Metropolitan Air Quality Management District. 2018 (September). *Guide to Air Quality Assessment in Sacramento County*. Available: <http://airquality.org/Residents/CEQA-Land-Use-Planning/CEQA-Guidance-Tools>. Accessed April 19, 2019.
- SMAQMD. See Sacramento Metropolitan Air Quality Management District.

- State of California. 2018. California Climate Change Legislation. Available: <http://www.climatechange.ca.gov/state/legislation.html>. Accessed June 26, 2019.
- United Nations. 2015. Paris Agreement. Available: https://unfccc.int/sites/default/files/english_paris_agreement.pdf. Accessed April 18, 2019.
- U.S. Environmental Protection Agency. 2014 (October). Pollution Prevention Greenhouse Gas (GHG) Calculator Guidance. Available: <https://www.epa.gov/sites/production/files/2014-12/documents/ghgcalculatorhelp.pdf>. Accessed May 20, 2019.
- . 2018 (April 2). EPA Administrator Pruitt: GHG Emissions Standards for Cars and Light Trucks Should Be Revised. Available: <https://www.epa.gov/newsreleases/epa-administrator-pruitt-ghg-emissions-standards-cars-and-light-trucks-should-be>. Accessed April 18, 2019.
- . 2019. Fact Sheet—The Affordable Clean Energy Rule (ACE). Available: https://www.epa.gov/sites/production/files/2019-06/documents/bser_and_eg_fact_sheet_6.18.19_final.pdf.
- Wade, Samuel. Branch chief. Transportation Fuels Branch, Industrial Strategies Division, California Air Resources Board, Sacramento, CA. June 30, 2017—e-mail to Austin Kerr of Ascent Environmental regarding whether the Low Carbon Fuel Standard applies to fuels used by off-road construction equipment.
- ### Section 4.7, “Energy”
- California Air Pollution Control Officers Association. 2016. California Emissions Estimator Model Version 2016.3.2.
- California Department of General Services. 2015. Management Memo MM 15-04: Energy Use Reduction for New, Existing and Leased Buildings. May 13, 2015. Available: https://www.documents.dgs.ca.gov/osp/sam/memos/MM15_04.pdf. Accessed April 18, 2019.
- California Department of Transportation. 2008 (May). *2007 California Motor Vehicle Stock, Travel and Fuel Forecast*.
- California Energy Commission. 2018a. 2019 Building Energy Efficiency Standards, Frequently Asked Questions. Available: http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf. Accessed April 18, 2019.
- . 2018b (July). 2017 Power Content Label: Sacramento Municipal Utility District. Available: https://ww2.energy.ca.gov/pcl/labels/2017_labels/SMUD_2017_PCL.pdf. Accessed August 15, 2019.
- California Energy Commission and California Air Resources Board. 2003 (August). *Reducing California’s Petroleum Dependence*. Available: <https://www.arb.ca.gov/fuels/ca refinery/ab2076final.pdf>. Accessed April 24, 2019.
- California Energy Commission and California Public Utilities Commission. 2008 (February). *Energy Action Plan*. 2008 update. Available: <https://www.energy.ca.gov/2008publications/CEC-100-2008-001/CEC-100-2008-001.PDF>. Accessed June 4, 2019.
- Caltrans. See California Department of Transportation.
- CAPCOA. See California Air Pollution Control Officers Association.
- CEC. See California Energy Commission.
- CEC and CARB. See California Energy Commission and California Air Resources Board.
- CEC and CPUC. See California Energy Commission and California Public Utilities Commission.
- DGS. See California Department of General Services
- EIA. See U.S. Energy Information Administration.
- State of California. 2012. Green Building Action Plan—For Implementation of Executive Order B-18-12. Available: https://www.climatechange.ca.gov/climate_action_team/documents/Green_Building_Action_Plan.pdf. Accessed June 26, 2019.

U.S. Energy Information Administration. 2014. California Energy Highlights: 2014 EIA Reports and Publications. Available: https://www.eia.gov/state/state_one_pager/California.pdf. Accessed April 18, 2019.

Section 4.8, “Noise and Vibration”

California Department of Transportation. 2002 (January). *California Airport Land Use Planning Handbook*. Sacramento, CA. Prepared by Shutt Moen Associates, Santa Rosa, CA.

———. 2013a (September). *Transportation and Construction Vibration Guidance Manual*. Noise, Division of Environmental Analysis. Sacramento, CA.

———. 2013b (September). *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. California Department of Transportation Division of Environmental Analysis. Sacramento, CA. Prepared by ICF Jones & Stokes.

Caltrans. See California Department of Transportation.

City of Sacramento. 2015 (November). Environmental Constraints Element. In *Sacramento 2035 General Plan*. Adopted March 3, 2015. Sacramento, CA.

Federal Highway Administration. 2006 (January). *FHWA Roadway Construction Noise Model User's Guide*. Washington, DC. Prepared by the Research and Innovative Technology Administration, Cambridge, MA.

Federal Transit Administration. 2006 (May). *Transit Noise and Vibration Impact Assessment*. Washington, DC. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed April 4, 2017.

FHWA. See Federal Highway Administration.

FTA. See Federal Transit Administration.

Governor's Office of Planning and Research. 2017. *State of California General Plan Guidelines*. Sacramento, CA.

OPR. See Governor's Office of Planning and Research.

Section 4.9, “Geology and Soils”

Bryant, W. A., and E. W. Hart. 2007. *Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps*. Interim revision. Special Publication 42. California Geological Survey, Sacramento, CA.

California Geological Survey. 2003. Earthquake Shaking Potential for California. CSSC No. 03-02. Available: https://ssc.ca.gov/forms_pubs/shaking_18x23.pdf. Accessed June 26, 2019.

CGS. See California Geological Survey.

Geocon. See Geocon Consultants.

Geocon Consultants. 2019 (July). *Geotechnical Investigation: Capitol Annex Project, 1315 10th Street, Sacramento, California*. Rancho Cordova, CA. Prepared for DGS/RESO/PMDB, West Sacramento, CA.

Gutierrez, C. I. 2011. *Preliminary Geologic Map of the Sacramento 30' x 60' Quadrangle, California*. California Department of Conservation, California Geological Survey.

NRCS. See U.S. Natural Resources Conservation Service.

Sacramento Central Groundwater Authority. 2012 (February). *Sacramento Central Groundwater Authority Groundwater Elevation Monitoring Plan*. Sacramento, CA.

SCS. See U.S. Soil Conservation Service.

U.S. Natural Resources Conservation Service. 2019. Web Soil Survey: Map Unit Description: Columbia-Urban land complex, drained, 0 to 2 percent slopes—Sacramento County, California. Available: <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed July 30, 2019.

U.S. Soil Conservation Service. 1985. *Soil Survey of Sacramento County, California*. Washington, DC.

Section 4.10, “Hydrology and Water Quality”

California Department of Water Resources. 2004 (February). *California's Groundwater Bulletin 118: Sacramento Valley Groundwater Basin, South American Subbasin*. Sacramento, CA.

———. 2012. (June). *2012 Central Valley Flood Protection Plan*. Sacramento, CA. Available: <https://water.ca.gov/LegacyFiles/cvfmf/docs/2012%20CVFPP%20FINAL%20lowres.pdf> Accessed August 28, 2019.

———. 2017. (June). *Central Valley Flood Protection Plan 2017 Update*. Sacramento, CA. Available: <http://cvfspb.ca.gov/docs/2017CVFPPUpdateFinal/2017CVFPPUpdate-Final-20170828.pdf> Accessed August 28, 2019. Central Valley Regional Water Quality Control Board. 2012. *Final California 2012 Integrated Report (303(d) List/305(b) Report)*. Supporting Documentation. Available: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2012.shtml. Accessed March 10, 2017.

———. 2018. (May). *The Water Quality Control Plan (Basin Plan) for the California Regional Water Quality Control Board, Central Valley Region*. Fifth edition. Available: https://www.waterboards.ca.gov/centralvalley/water_issues/basin_plans/sacsjr_201805.pdf. Accessed May 15, 2019.

Central Valley RWQCB. See Central Valley Regional Water Quality Control Board.

City of Sacramento. 2013 (October). *Administrative and Technical Procedures Manual for Grading and Erosion and Sediment Control*. Sacramento, CA.

———. 2014 (August). Section 4.7, Hydrology and Water Quality. In *Draft Master Environmental Impact Report for the City of Sacramento 2035 General Plan Update*. SCH # 2012122006. Prepared by Ascent Environmental. Sacramento, CA.

DWR. See California Department of Water Resources.

Federal Emergency Management Agency. 2017 (March). Flood Insurance Rate Map. Panel Numbers 06067C. Available: <https://msc.fema.gov/portal>. Accessed March 10, 2017.

FEMA. See Federal Emergency Management Agency.

Sacramento Central Groundwater Authority. 2012 (February). *Sacramento Central Groundwater Authority Groundwater Elevation Monitoring Plan*. Sacramento, CA.

Sacramento County Water Agency. 2006 (February). *Central Sacramento County Groundwater Management Plan*. Available: http://www.scgah2o.org/documents/CSCGMP_final.pdf. Accessed May 15, 2019.

Sacramento River Watershed Program. 2010 (October). County Boundaries in the Sacramento River Basin [map]. In *The Sacramento River Basin: A Roadmap to Watershed Management*. Executive Summary. Available: <http://www.sacriver.org/aboutwatershed/roadmap/sacramento-river-basin>.

SCGA. See Sacramento Central Groundwater Authority.

SCWA. See Sacramento County Water Agency.

U.S. Geological Survey. 2000. *Water Quality in the Sacramento River Basin California, 1994–1998*. Circular 1215. Sacramento, CA.

USGS. See U.S. Geological Survey.

Section 4.11, “Hazardous Materials and Public Health”

American Society for Testing and Materials. 2013. *Designation E 1527-13: Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

ASTM. See American Society for Testing and Materials.

- City of Sacramento. 2008 (September). *City of Sacramento Evacuation Plan for Floods and Other Emergencies: An Annex to the City of Sacramento's Emergency Operations Plan*. Sacramento, CA. Prepared by James Lee Witt Associates for the City of Sacramento Office of Emergency Services, Sacramento, CA.
- . 2015 (March). Public Health and Safety Element. In *Sacramento 2035 General Plan*. Adopted March 3, 2015. Sacramento, CA.
- . 2018. *City of Sacramento Emergency Operations Plan 2018*. Sacramento, CA.
- Geocon. See Geocon Consultants.
- Geocon Consultants. 2019 (July). *Phase I Environmental Site Assessment Report: Capitol Annex Project, 1315 10th Street, Sacramento, California*. Rancho Cordova, CA. Prepared for Ascent Environmental, Sacramento, CA.
- Section 4.12, “Archaeological, Historical, and Tribal Cultural Resources”**
- Brienes, M. 1978. *The People's Potties: From Filth Pit to Flush Toilet in Sacramento, 1849–1900*. California Department of Parks and Recreation, Cultural Heritage Section. On file, Sacramento Archives and Museum Collection Center.
- California State Capitol Museum. 2015. California State Capitol History Part II: Construction. Available: <http://capitolmuseum.ca.gov/the-museum/virtual-tours>.
- . 2016. *California State Capitol Museum: Capitol Park Tree Guide*. Available: <http://capitolmuseum.ca.gov/images/pdf/CapitolParkTreeBooklet.pdf>.
- City of Sacramento. 2015. Appendix B of *Background Report for Sacramento 2035 General Plan*. SCH No. 2007072024. Adopted March 3, 2015. Available: <http://www.cityofsacramento.org/Community-Development/Resources/Online-Library/2035--General-Plan>.
- Dreyfuss & Blackford Architects and Page & Turnbull. 2006 (December 18). Chapter 3.0, Historic Structure Report. In *State Capitol Infrastructure Study*, Volume II.
- Hamilton, C. M., W. M. Nettles, B. Ludwig, and C. Gross. 2005. *The Many Faces of a City: Research Design for Recovery of Archaeological Deposits in Areas of West Side Projects, City of Sacramento, California*. Prepared by Applied EarthWorks, Inc. on behalf of EDAA. On file at California Department of General Services-Real Estate Division.
- Historic State Capitol Commission. 2013. Capitol Park. Available: <https://capitolcommission.legislature.ca.gov/capitol-park>.
- Kroeber, A. J. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology, Smithsonian Institution Bulletin 78. Washington, DC: Government Printing Office. Reprinted 1976 by Dover Publications, NY.
- Lemon, D., and C. Davis. 2018. *Memorandum re Proposed O Street Office Building Project, Public Resource Code (PRC) 5024.5 Consultation and Impacts Analysis, California State Government Building District*. Prepared by Senior Architectural Historians, ICF, Los Angeles, CA, for California Department of General Services, West Sacramento, CA.
- Regnery, D. 1983. *National Register of Historic Places Inventory–Nomination Form: Capitol Extension Group*. P-34-002336. On file, North Central Information Center, California State University, Sacramento.
- Rosenthal, J. S., G. G. White, and M. Q. Sutton. 2007. The Central Valley: A View from the Catbird's Seat. In *California Prehistory: Colonization, Culture, and Complexity*, ed. T. L. Jones and K. A. Klar, 147–163. Lanham, MD: AltaMira Press.
- Sanborn. 1895. *Certified Sanborn Map Report*. EDR. Inquiry Number 5591963. Sheets 14, 15. Sanborn Perris Map Company. Sacramento, California Map. New York.
- . 1952. Sanborn 1915–1952, Sheets 47, 48. Sanborn Perris Map Company. Sacramento, California Map, Vol 1. New York. [indexed 1940].
- Visnich, D. 2000. California State Capitol: A Cast-Iron Classic Taken for Granite. U.S. Capitol Historical Society. Available: <https://uschs.org/explore/historical-articles/california-state-capitol-cast-iron-dome/>.

- Wilson, N. L., and A. H. Towne. 1978. Nisenan. In *California*, ed. R. F. Heizer, 387–397. Volume 8, Handbook of North American Indians, gen. ed. W. G. Sturtevant. Washington, DC: Smithsonian Institution.
- Woodward, L. 1981 (October). *A Documentary History of California's State Capitol*. California State Capitol Restoration Project. Sacramento, CA. Available: https://capitolcommission.legislature.ca.gov/sites/capitolcommission.legislature.ca.gov/files/documentary_history_of_ca.pdf.

Section 4.13, “Biological Resources”

- California Native Plant Society. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Available: <http://www.rareplants.cnps.org>. Accessed April 24, 2019.
- California Natural Diversity Database. 2019 (March). Results of electronic records search. California Department of Fish and Wildlife, Sacramento, CA. Accessed April 24, 2019.
- City of Sacramento. 2015. Environmental Resources Element in *City of Sacramento 2035 General Plan*. Available: <https://www.cityofsacramento.org/-/media/Corporate/Files/CDD/Planning/General-Plan/2035-GP/Environmental-Resources.pdf?la=en>. Accessed May 15, 2019.
- CNDD. See California Natural Diversity Database.
- CNPS. See California Native Plant Society.
- eBird. 2019. eBird: An online database of bird distribution and abundance [web application]. *eBird*, Ithaca, NY. Available: <http://www.ebird.org>. Accessed July 24, 2019.

Section 4.14, “Public Services and Recreation”

- California Highway Patrol. 2017. Capitol Protection Section. Available: <https://www.chp.ca.gov/find-an-office/headquarters/assistant-commissioner-field/protective-services-division/capitol-protection-section>. Accessed February 13, 2017.
- CHP. See California Highway Patrol.
- California State Parks. 2016. *California State Capitol Museum: Capitol Park Monument and Memorial Guide*. Available: <http://capitolmuseum.ca.gov/images/pdf/CapitolParkMemorialBooklet.pdf>. Accessed August 28, 2019.
- City of Sacramento. 2015 (March 3). Chapter 5, Public Services. In *Sacramento 2035 General Plan Background Report Public Review Draft*.
- Leong, Norm. Police captain. City of Sacramento Police Department, Sacramento, CA. August 28, 2019—telephone call to Tiffany Lunday of Ascent Environmental regarding police support for the project area and project development.
- Moos, Paul. Investigator. Capitol Protection Section, California Highway Patrol, Sacramento CA. August 14, 2019—email to Sean Bechta of Ascent Environmental regarding the number of permits issued for the area bordered by L, N, 10th, and 12th Streets and for the remainder of Capitol Park, west of 12th Street.
- Sacramento Fire Department. No date. *City of Sacramento Fire Department 2017 Annual Report*. Available: <https://www.cityofsacramento.org/-/media/Fire/Sacramento-Fire-2017-Annual-Report.pdf?la=en>. Accessed July 17, 2019.
- Sacramento Police Department. No date. *Sacramento Police Department 2016 Annual Report*. Available: <https://www.cityofsacramento.org/-/media/Corporate/Files/Police/About-SPD/Annual-Reports/ar16.pdf?la=en>. Accessed February 21, 2017.
- SFD. See Sacramento Fire Department.
- SPD. See Sacramento Police Department.

Tunson, King. Entitlement plan review supervisor. Sacramento Fire Department, Sacramento, CA. July 19, 2019—email to Tiffany Lunday of Ascent Environmental regarding fire and emergency services for the proposed Capitol Annex Project.

Section 4.15, “Aesthetics, Light, and Glare”

California Building Standards Commission. 2017a. *Guide to the 2016 Green Building Standards Code*. Available: <https://www.documents.dgs.ca.gov/bsc/CALGreen/CALGreen-Guide-2016-FINAL.pdf>. Accessed February 23, 2017.

———. 2017b. *2016 California Green Building Standards Code, Nonresidential Mandatory Measures*. Available: <https://www.documents.dgs.ca.gov/bsc/CALGreen/2016-CALGreen-Summary.pdf>. Accessed February 23, 2017.

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

———. 2005 (November). *Draft Environmental Impact Report for the Capitol West Side Projects Central Plant Renovation and West End Office Complex*. Sacramento, CA. Prepared by EDAW, Sacramento, CA.

California Department of Transportation. 2017. California Scenic Highway Mapping System: scenic routes in Sacramento. Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed February 9, 2017.

California Office of Historic Preservation. 2005 (September 7). *California State Law & Historic Preservation: Statutes, Regulations & Administrative Policies Regarding the Preservation & Protection of Cultural & Historical Resources*. Technical Assistance Series #10. Sacramento, CA.

Caltrans. See California Department of Transportation.

CBSC. See California Building Standards Commission.

City of Sacramento. 2009 (May 19). *Sacramento Central City Urban Design Guidelines*. Sacramento, CA.

———. 2015. Section 6.8, Scenic Resources. In *Sacramento 2035 General Plan Background Report*. Adopted March 3, 2015. Sacramento, CA.

DGS. See California Department of General Services.

Dreyfuss & Blackford Architects and Page & Turnbull. 2006. Chapter 3.0, Historic Structure Report. In *State Capitol Infrastructure Study*.

Federal Highway Administration. 2015 (January). *Guidelines for the Visual Impact Assessment for Highway Projects*. Contract DTFH61-11-D-00033. Washington, DC.

Joint Committee on Rules. 2017 (December). *California State Capitol Annex Project Planning Study*.

Chapter 5, “Cumulative Impacts”

California Department of Finance. 2019 (May). Population Estimates for Cities, Counties, and the State—January 1, 2017 and 2018 (E-1). Available: http://www.dof.ca.gov/Forecasting/Demographics/Estimates/E-1/documents/E-1_2019PressRelease.pdf. Accessed July 23, 2019.

California Department of General Services. 1997 (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

———. 2015 (January). *Capitol Area Plan Progress Report*. Real Estate Services Division, West Sacramento, CA. Prepared by Asset Planning and Enhancement Branch.

City of Sacramento. 2013. (December). City of Sacramento 2013–2021 Housing Element. Adopted December 17, 2013.

———. 2014 (August). Chapter 3, Land Use, Population, and Housing. In *Draft Master Environmental Impact Report for the City of Sacramento 2035 General Plan Update*. Prepared by Ascent Environmental.

- . 2015a (March 3). City of Sacramento 2035 General Plan. Part 2, Citywide Goals and Policies, Land Use and Urban Design (LU). Part 3, Community Plan Areas and Special Study Areas, Central City Community Plan. Prepared by City of Sacramento. In consultation with Mintier Harnish, Ascent Environmental, Fehr & Peers, Nelson Nygaard, New Economics and Advisory, NV5, and Page & Turnbull. Sacramento, CA.
- . 2015b (March 3). Chapter 2, Community Development, page 2-100. In *City of Sacramento 2035 General Plan Background Report*. Prepared by City of Sacramento. In consultation with Mintier Harnish, Ascent Environmental, Fehr & Peers, Nelson Nygaard, New Economics and Advisory, NV5, and Page & Turnbull. Sacramento, CA.
- . 2018 (April 19). *Central City Specific Plan Environmental Impact Report*. Sacramento, CA. Prepared by ESA, Sacramento, CA.

DGS. See California Department of General Services.

Griffith, Joel. Capital outlay program manager. California Department of General Services, Sacramento, CA. July 1, 2019—email conversation with Kirsten Burrowes of Ascent Environmental regarding utility information and natural gas services to the Capitol building.

SACOG. See Sacramento Area Council of Governments.

Sacramento Area Council of Governments. 2016 (January). *Final Environmental Impact Report for the 2016 Metropolitan Transportation Plan/Sustainable Communities Strategy*, State Clearinghouse #2014062060. Sacramento, CA.

Sacramento Metropolitan Air Quality Management District. 2019 (April 25). Friant Ranch Interim Recommendation. Available: <http://www.airquality.org/LandUseTransportation/Documents/FriantInterimRecommendation.pdf>. Accessed July 23, 2019.

SMAQMD. See Sacramento Metropolitan Air Quality Management District.

Transportation Research Board. 2016. *Highway Capacity Manual: A Guide for Multimodal Mobility Analysis*. Sixth edition.

U.S. Census Bureau 2001. Profile of General Demographic Characteristics: 2000, Census 2000 Summary File 1 100-Percent Data. Available: <https://factfinder.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#none>. Accessed February 14, 2017.

Chapter 6, “Other CEQA Sections”

California Department of General Services. 1997a (July). *1997 Capitol Area Plan: An Update of the 1977 Capitol Area Plan*. Sacramento, CA. Prepared by Dyett & Bhatia, Urban and Regional Planners, with assistance from ROMA Design Group, Van Meter Williams Pollack, and The Hoyt Company.

———. 1997b (August). *Draft Environmental Impact Report: 1997 Capitol Area Plan*. Revised. Office of Project Development and Management. Sacramento, CA. Prepared by EIP Associates, Sacramento, CA.

California Employment Development Department. 2019. Sacramento—Roseville—Arden-Arcade Metropolitan Statistical Area (MSA) (El Dorado, Placer, Sacramento, and Yolo Counties). Seasonal gains in government led month-over job growth. Data produced by the Labor Market Information Division. Available: <https://www.labormarketinfo.edd.ca.gov/>. Accessed April 30, 2019.

DGS. See California Department of General Services.

EDD. See California Employment Development Department.

Chapter 7, “Alternatives”

No sources are cited in this chapter.

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