

EDWARD J. SCHWARTZ FEDERAL BUILDING STRUCTURAL ENHANCEMENTS PROJECT

SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA

Final Environmental Assessment



Prepared by the
United States General Services Administration

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**FINAL ENVIRONMENTAL ASSESSMENT
EDWARD J. SCHWARTZ FEDERAL BUILDING STRUCTURAL ENHANCEMENTS PROJECT
SAN DIEGO, CALIFORNIA**

JULY 2019

Lead Agency: U.S. General Services Administration (GSA)
50 United Nations Plaza
San Francisco, CA, 94102

Lead Agency Contact: Mr. Osmahn Kadri
Regional Environmental Quality Advisor/NEPA Project Manager
Portfolio Management Division (9PTC)
U.S. General Services Administration
50 United Nations Plaza, Room 3345, Mailbox 9
San Francisco, California, 94102
Telephone: (415) 522-3617
Email: osmahn.kadri@gsa.gov

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Abstract: This document is an Environmental Assessment (EA) for the Edward J. Schwartz Federal Building Structural Enhancements Project. The Project is located at 880 Front Street in San Diego, California at the Edward J. Schwartz Federal Building and United States Courthouse. The Project is proposed in order to improve structural safety for the public traveling underneath the building and for the tenants occupying the building above the Front Street underpass.

This Final EA analyzes an Action Alternative and a No Action Alternative. The Action Alternative would consist of structural enhancements to the portion of the existing Edward J. Schwartz Federal Building over Front Street between E and F streets. Existing columns and beams supporting the building at the Front Street underpass would be reinforced with new steel beams and column support structures and pre-cast concrete paneling. Construction would require full and partial closure of Front Street between Broadway and F Street. Street closure options during construction of the Action Alternative are being considered and a comprehensive Traffic Control Plan will be prepared to address the street closure. Under the No Action Alternative, structural enhancements to the existing Edward J. Schwartz Federal Building would not occur.

Public Comments: The Draft EA was made publicly available on November 19, 2018 for a 30-day period. The public review period closed on December 17, 2018. The Notice of Availability for the Draft EA was published in the Federal Register on November 19, 2018. A public meeting took place on November 28, 2018 in the Downtown San Diego community. In preparing this Final EA, GSA considered public comments received regarding the Draft EA during the public review period.

This Final EA contains revisions to the draft document based, in part, on the public comments received on the Draft EA. Revisions are indicated in this Final EA by a line in the margin.

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACMs	asbestos-containing materials
ADT	average daily traffic
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
AM	morning
AMSL	above mean sea level
BMPs	best management practices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emission Estimator Model
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CH ₄	methane
City	City of San Diego
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CT	Census Tract
dB	decibels
dBA	A-weighted decibels
DCP	Downtown Community Plan
DPM	diesel particulate matter
EA	Environmental Assessment
EB	eastbound
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
FOB	federal office building
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
GHG	greenhouse gas
GHGRP	Greenhouse Gas Reporting Program
GIS	geographic information system
GSA	U.S. General Services Administration
GWP	global warming potential
H ₂ S	Hydrogen sulfide
HAP	hazardous air pollutant
HFCs	hydrofluorocarbons

HP	horsepower
I-5	Interstate 5
L	left-turn movement
L _{EQ}	time-averaged noise levels
LOS	level of service
mph	miles per hour
MSAT	Mobile Source Air Toxics
MT	metric ton
MTS	Metropolitan Transit System
N ₂ O	
NAAQS	National Ambient Air Quality Standards
NB	northbound
NEPA	National Environmental Policy Act
NO _x	nitrogen oxides
NO ₂	nitrogen dioxide
NO ₃	nitrate
NOI	Notice of Intent
O ₃	ozone
OSHA	Occupational Safety and Health Act
Pb	lead
PBS	Public Building Service
PFCs	perfluorocarbons
PM	evening/particulate matter
PM _{2.5}	fine particulate matter with a diameter of 2.5 microns or less
PM ₁₀	respirable particulate matter with a diameter of 10 microns or less
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	California Public Resources Code
R	right-turn movement
RCRA	Resource Conservation and Recovery Act of 1976
ROG	reactive organic gasses
S	signalized
SANDAG	San Diego Association of Governments
SB	southbound
Schwartz FOB	Edward J. Schwartz Federal Office Building
SDAB	San Diego Air Basin
SDG&E	San Diego Gas and Electric
SDIA	San Diego International Airport
SF ₆	sulfur hexafluoride
SO ₂	sulfur dioxide

T	through movement
TIA	Traffic Impact Analysis
U	Unsignalized
U.S.	United States
USC	United States Code
USD	University of San Diego
USEPA	U.S. Environmental Protection Agency
V/C	volume-to-capacity ratio
VOCs	volatile organic compounds
WB	westbound
$\mu\text{g}/\text{m}^3$	micrograms per cubic meter

SUMMARY

The United States (U.S.) General Services Administration (GSA) has prepared this Final Environmental Assessment (EA) based on public comments received regarding the Draft EA during the public review period (November 19 to December 19, 2018). Revisions to the draft document are indicated in this Final EA by a line in the margin.

S.1 INTRODUCTION/BACKGROUND

This EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq.), as implemented by the regulations promulgated by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations[CFR] §1500-1508). The principal objectives of NEPA are to ensure the careful consideration of environmental aspects of proposed actions in Federal decision-making processes and to make environmental information available to decision makers and the public before decisions are made and actions are taken. This EA follows the U.S. General Services Administration (GSA) NEPA guidelines, namely the 1999 GSA Public Buildings Service (PBS) NEPA Desk Guide.

GSA proposes structural enhancements to the existing Edward J. Schwartz Federal Office Building (Schwartz FOB) located at 880 Front Street, San Diego, California (Proposed Action). The primary purpose of this EA is to document and evaluate the potential environmental effects of the Proposed Action and the ability of the alternatives to meet the purpose and need for the Proposed Action. An EA is a concise document that is prepared for an action where the significance of the social, economic, and environmental impacts are not clearly established or defined (23 CFR 771.115(c), 40 CFR 1508.9). An EA (1) briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI); (2) aids an agency's compliance with NEPA when an EIS is not necessary; and (3) facilitates preparation of an EIS when one is necessary (40 CFR Part 1508.9). In accordance with 40 CFR 1502.1, the EA is intended to provide GSA, the public, and decision makers a full and fair discussion of significant environmental impacts from the proposed action and inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. In addition to providing disclosure, the objective of the EA is to identify an alternative that satisfies the purpose and need of the Proposed Action and minimizes adverse environmental effects.

The existing Schwartz FOB has five stories of federal office building space spanning above a portion of Front Street and two levels of parking structure and occupied space beneath the roadway. The portion of Front Street that extends below the Schwartz FOB is referred to as the Front Street underpass. There is a large plaza located west of Front Street north of the building, and a landscaped plaza on either side of Front Street south of the building.

S.2 PURPOSE AND NEED

The purpose of the Proposed Action is to implement structural enhancements to improve safety for the public traveling underneath the existing building and for the tenants occupying the building above the Front Street underpass. The proposed structural enhancements are needed to support GSA's safety objectives for the Schwartz FOB.

S.3 ACTION ALTERNATIVES

This EA includes an analysis of potential environmental impacts associated with the Proposed Action (Action Alternative) and the No Action Alternative.

Action Alternative

The Action Alternative would consist of structural enhancements to the portion of the existing Schwartz FOB over Front Street between E and F streets. Existing columns, beams, and framing supporting the building at the Front Street underpass would be reinforced with new steel beams and column support structures and precast concrete paneling. The existing cement plaster ceiling, precast paneling, metal guardrails, and masonry planters would be demolished. The enhanced overpass/tunnel structure would be constructed below the existing second floor framing while maintaining the existing vertical clearance in the underpass. New full height walls would separate the through lanes of Front Street from the pedestrian walkways on either side of the roadway.

Existing utilities located within the underpass, including lighting and a sprinkler system, would be removed to accommodate the construction and reinstalled following completion of the structural enhancements. The existing walkways along the Front Street underpass, including pavers, curbs, curb ramps, and ramps, also would be removed and replaced. Sidewalk pavers will be replaced with concrete. The new walkways would be structurally separated from Front Street.

Implementation of the Proposed Action would occur in the following phases: sidewalk demolition, fabrication of construction materials, demolition of existing building materials, and construction of structural enhancements and pedestrian experience walkways. Construction of the proposed improvements, as well as drop-off and pick-up of materials and equipment, would require the closure of one or more lanes of Front Street between Broadway and F Street, to be implemented in three phases. The first phase would require one lane of traffic on either side of Front Street between Broadway and F Street to be closed while two through lanes would remain open and existing traffic would not need to be rerouted (approximately 5 months on an as-needed basis). The second phase would require full closure of Front Street between E Street and F Street (approximately 14 months). The third phase is similar to the first phase with one lane of traffic on either side of Front Street to be closed while two through lanes would remain open (approximately 7 months on an as-needed basis). Overall, the construction period is estimated to occur over approximately 26 months, to be completed by Fall 2021.

No Action Alternative

The No Action Alternative is included and analyzed to provide a baseline for comparison with impacts from the action alternatives, and also to satisfy federal requirements for analyzing “no action” under NEPA (40 CFR 1502.14(d)). Under the No Action Alternative, the proposed structural enhancements described above would not be implemented and the existing building would remain as is in its current condition.

S.4 PROPOSED ACTION IMPACTS

Table S-1, *Summary of Environmental Consequences and Avoidance, Minimization, and/or Mitigation Measures*, summarizes the impacts and avoidance, minimization, and mitigation measures for each alternative. Detailed discussion and analysis of impacts are provided in Chapter 3.0 of this Final EA.

**Table S-1
 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Proposed Action		Avoidance, Minimization, and/or Mitigation Measures
Action Alternative	No Action Alternative	
Land Use and Community Issues		
<i>Existing and Future Land Uses</i>		
The Action Alternative would be consistent with existing and planned land uses in the Downtown Community Plan (DCP) Area, and with existing zoning and land use designations. The Action Alternative would not result in adverse impacts to existing or planned land uses.	The No Action Alternative would be consistent with existing and planned land uses in the DCP Area, and with existing zoning and land use designations. The No Action Alternative would not result in long-term adverse impacts to existing or planned land uses.	No avoidance, minimization, or mitigation measures are required.
<i>Consistency with State, Regional, and Local Plans</i>		
The Action Alternative would be consistent with relevant land use plans and would not result in adverse impacts related to plan or policy consistency.	The No Action Alternative would be consistent with relevant land use plans and would not result in adverse impacts related to plan or policy consistency.	No avoidance, minimization, or mitigation measures are required.
<i>Parks and Recreational Facilities</i>		
The Action Alternative would not adversely affect public park and recreational facilities in the DCP Area. No long-term impacts would occur to park or recreational facilities.	No impacts to public parks or recreational facilities would occur under the No Action Alternative.	No avoidance, minimization, or mitigation measures are required.
<i>Community Character and Cohesion</i>		
The Action Alternative would not result in adverse impacts to community cohesion, parking, property values, or employment. It would generate temporary construction circulation impacts, but would not result in substantial adverse impacts to community access. The Action Alternative would not result in substantial adverse impacts to community cohesion or character.	No impacts to community character or cohesion would occur under the No Action Alternative.	No avoidance, minimization, or mitigation measures are required.
<i>Environmental Justice</i>		
No adverse environmental justice impacts would be anticipated under the Action Alternative.	No adverse environmental justice impacts would be anticipated under the No Action Alternative.	No avoidance, minimization, or mitigation measures are required.
<i>Environmental Health and Safety Risks to Children</i>		
No impacts related to environmental health and safety risks to children would occur	No impacts related to environmental health and safety risks to children would occur.	No avoidance, minimization, or mitigation measures are required.

**Table S-1 (cont.)
 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Proposed Action		Avoidance, Minimization, and/or Mitigation Measures
Action Alternative	No Action Alternative	
Traffic and Transportation/Pedestrian and Bicycle Facilities		
<i>Construction Impacts to Vehicular Traffic</i>		
No substantial adverse construction-related vehicular traffic impacts would occur during construction of the Action Alternative, since the majority of roadways and intersections within the Proposed Action study area would either operate at acceptable levels of service during the construction period or would not experience substantial increases in delays compared to existing conditions. For the optional conversion of one lane of traffic along 1st Avenue between E Street and F Street to southbound travel during full closure of Front Street, the intersection of Broadway and Front Street would operate at LOS F during the PM peak hour with an unacceptable increase in delay compared to existing conditions. Implementation of this option would be temporary (up to 14 months) and would provide access for fire and rescue vehicles and MTS buses and reduce impacts to transit and emergency services.	No construction impacts to vehicular traffic would occur.	No avoidance, minimization, or mitigation measures have been identified to alleviate the temporary increase in delay modeled at the intersection of Broadway and Front Street during full closure of Front Street between E Street and F Street. A Traffic Control Plan would be prepared and implemented for the Action Alternative to identify temporary detours to be implemented during full closure of Front Street.
<i>Traffic Operations Impacts</i>		
No long-term impacts to traffic operations would occur, since no changes to roadway capacity or geometrics are proposed and no new traffic-generating uses would occur.	No long-term impacts to traffic operations would occur.	No avoidance, minimization, or mitigation measures are required.
<i>Pedestrian and Bicycle Facility Impacts</i>		
Although pedestrian access through the Proposed Action site would be temporarily eliminated during construction, detours and alternative pedestrian routes would be available nearby, and there would be no long-term impact to pedestrian facilities. No substantial adverse bicycle circulation impacts would result from the Action Alternative.	No substantial adverse pedestrian or bicycle circulation impacts would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required. A Traffic Control Plan would be prepared and implemented for the Action Alternative to identify temporary detours to be implemented during full closure of Front Street.

**Table S-1 (cont.)
 SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Proposed Action		Avoidance, Minimization, and/or Mitigation Measures
Action Alternative	No Action Alternative	
Traffic and Transportation/Pedestrian and Bicycle Facilities (cont.)		
Transit Facility Impacts		
Although bus routes traveling south on Front Street through the Proposed Action site would be temporarily diverted to other nearby streets during construction, no substantial adverse transit impacts would result from the Action Alternative.	No substantial adverse transit impacts would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required. A Traffic Control Plan would be prepared and implemented for the Action Alternative to identify temporary detours to be implemented during full closure of Front Street.
Noise and Vibration		
No substantial adverse noise or vibration impacts would occur, since noise levels would not exceed the City of San Diego construction noise standard at the nearest sensitive receptors, nor would vibration-generating equipment be used during construction.	No substantial adverse noise or vibration impacts would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required. The construction contractor would implement the following construction BMPs, as applicable, to reduce noise and vibration effects during construction: <ul style="list-style-type: none"> • Properly outfit and maintain construction equipment with manufacturer-recommended noise reduction devices to minimize construction-generated noise. • Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers. • Employ additional noise attenuation techniques as needed to reduce excessive noise levels. Implementation shall be determined by GSA after acoustical review. Such techniques shall include, but not be limited to, the construction of temporary sound barriers or sound blankets between construction/staging areas and nearby noise-sensitive receptors. • Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) to be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise sensitive receptors.

**Table S-1 (cont.)
SUMMARY OF ENVIRONMENTAL CONSEQUENCES AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES**

Potential Impacts of the Proposed Action		Avoidance, Minimization, and/or Mitigation Measures
Action Alternative	No Action Alternative	
Noise and Vibration (cont.)		
		<ul style="list-style-type: none"> The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.
Air Quality and Greenhouse Gas Emissions		
Criteria Pollutants – Construction Impacts		
Criteria pollutant emissions generated during construction of the Action Alternative would not exceed the federal <i>de minimis</i> thresholds for and no adverse impacts would occur.	No adverse construction air quality impacts would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required. The Action Alternative would comply with applicable regulatory requirements of the San Diego Air Pollution Control District and standard measures to reduce construction air quality emissions.
Criteria Pollutants – Operational Impacts		
No substantial adverse operational air quality impacts would result from the Action Alternative, since no long-term changes in local or regional emissions would occur compared to existing conditions.	No adverse operational air quality impacts would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required.
Air Quality Conformity		
No adverse impact associated with regional air quality conformity would occur.	No adverse impact associated with regional air quality conformity would occur.	No avoidance, minimization, or mitigation measures are required.
Hazardous Air Pollutants		
No substantial adverse impacts associated with hazardous air pollutants such as diesel particulate matter, mobile-source carbon monoxide emissions, or asbestos-containing materials would occur.	No adverse impacts associated with hazardous air pollutants would result from the No Action Alternative.	No avoidance, minimization, or mitigation measures are required. The Action Alternative would comply with applicable regulatory requirements of the San Diego Air Pollution Control District and standard measures to reduce construction air quality emissions.
Greenhouse Gas Impacts		
No adverse construction or operational greenhouse gas (GHG) impacts would occur.	No adverse construction or operational GHG impacts would occur.	No avoidance, minimization, or mitigation measures are required. The Action Alternative would comply with applicable regulatory requirements of the San Diego Air Pollution Control District and standard measures to reduce construction GHG emissions.

S.5 COORDINATION WITH PUBLIC AND OTHER AGENCIES

Permits and Approvals Needed

Permits and approvals that would be obtained for the Proposed Action are listed below:

- GSA Public Buildings Service Commissioner approval of project design
- Traffic Control Permit issued by the City of San Diego

Consultation and Coordination with Public Agencies

Consultation and coordination with the City of San Diego has been ongoing since July 2017 and has included nine meetings to date. GSA and U.S. District Court and Marshals Service have met with several City departments (including Development Services, Transportation and Storm Water, Fire, Public Works, and Neighborhood Services) to discuss the details of the Proposed Action. The primary topic discussed at these meetings involved temporary impacts to traffic along Front Street during construction. Specifically, it was discussed if the construction schedule would involve a complete and full closure, versus a partial closure of Front Street, and how daily traffic would be accommodated in either scenario. Other discussion topics included potential trolley and bus conflicts, using a changeable message sign on I-5 to notify motorists of the road closure, the need to close both pedestrian walkways along Front Street during construction for safety reasons, the inability for the City to adjust downtown traffic signals as they are timed on a 70-second cycle and cannot be modified for construction traffic, a new fire station that is being planned in the area, and a new childcare center has moved into the Schwartz FOB.

Public Participation

Pursuant to NEPA, a Notice of Intent (NOI) was prepared for the Proposed Action and published in Vol. 83, No. 180 of the *Federal Register* on Monday, September 17, 2018. The NOI invited agencies and the public to submit comments regarding the scope of the EA. Scoping for the Proposed Action was accomplished through direct mail correspondence to the appropriate federal, state, and local agencies; surrounding property owners; and private organizations and citizens who have previously expressed or are known to have interest in the Proposed Action. During the public comment period for the scoping process (September 17, 2018 through October 19, 2018), comments were received from the City of San Diego and two individuals, Shawn Hibbets and Stacey Kartagener. Comments from the City focused on information and approvals related to potential changes in stormwater infrastructure and the Traffic Control Plan. The City also emphasized ongoing coordination with GSA. Comments from Shawn Hibbets, who represents LAZ Parking located at 757 Union Street south of the Proposed Action site, focused on maintaining access to the parking garage from Front Street. Comments from Stacey Kartagener concerned availability of rental units within the area, which is beyond the scope of this EA but included as part of the public record.

GSA also provides information on the Proposed Action on their website at: <https://www.gsa.gov/about-us/regions/welcome-to-the-pacific-rim-region-9/buildings-and-facilities/california/edward-j-schwartz-federal-office-building#CurrentProjects>.

The Draft EA was made publicly available on November 19, 2018 for a 30-day period. The public review period closed on December 19, 2018. The Notice of Availability for the Draft EA was published in the Federal Register on November 19, 2018.

A public meeting took place on November 28, 2018 in the Downtown San Diego community to discuss the Draft EA in an open house-style format. Each station had one or more presentation boards with descriptive images related to the station topic. Each station included knowledgeable staff members to present information and answer questions related to their area of expertise. Individuals from the public were encouraged to sign in, receive information on the Proposed Action, visit the topic-specific stations, and submit written comments. One member of the public was in attendance and did not submit a written comment.

During the public comment period, two comment letters were received from the following agencies:

- City of San Diego
- Metropolitan Transit System

Copies of the comment letters and GSA's responses to each comment are provided in Chapter 4 of this Final EA.

1.0 PURPOSE AND NEED

This Environmental Assessment (EA) has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969, as amended (42 United States Code [USC] 4321 et seq.), as implemented by the regulations promulgated by the Council on Environmental Quality (CEQ) (40 Code of Federal Regulations [CFR] §1500-1508). The principal objectives of NEPA are to ensure the careful consideration of environmental aspects of proposed actions in Federal decision-making processes and to make environmental information available to decision makers and the public before decisions are made and actions are taken. This EA follows the General Services Administration (GSA) NEPA guidelines, namely the 1999 GSA Public Buildings Service (PBS) NEPA Desk Guide. This section of the EA briefly identifies the Proposed Action; specifies the purpose and need of the Proposed Action; provides summary information regarding the purpose, scope, and organization of this EA; summarizes the public agency and community coordination that has been conducted by GSA for the Proposed Action; and details the environmental review process.

1.1 PROPOSED ACTION

GSA proposes structural enhancements to the existing Edward J. Schwartz Federal Office Building (Schwartz FOB) located at 880 Front Street, San Diego, California (Proposed Action). The existing building is a six-story structure with two sub-basements, including five stories of federal office space spanning above a portion of Front Street and two levels of parking structure and occupied space beneath the roadway. The portion of Front Street that extends below the Schwartz FOB is referred to as the Front Street underpass. There is a large plaza located west of Front Street north of the building, and a landscaped plaza on either side of Front Street south of the building. The regional location and vicinity maps presented in Figure 1, *Regional Location*, and Figure 2, *Proposed Action Location*, show the limits of the Proposed Action, including proposed staging areas.

1.2 PURPOSE AND NEED OF THE PROPOSED ACTION

The purpose of the Proposed Action is to implement structural enhancements to improve safety for the public traveling underneath the existing building and for the tenants occupying the building above the Front Street underpass. The proposed structural enhancements are needed to support GSA's safety objectives for the Schwartz FOB.

1.3 PURPOSE AND SCOPE OF THE EA

1.3.1 Purpose of the EA

The primary purpose of this EA is to document and evaluate the potential environmental effects of the Proposed Action and the ability of the alternatives to meet the purpose and need identified above. An EA is a concise document that is prepared for an action where the significance of the social, economic, and environmental impacts are not clearly established or defined (23 CFR 771.115(c), 40 CFR 1508.9). An EA (1) briefly provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI); (2) aids an agency's compliance with NEPA when an EIS is not necessary; and (3) facilitates preparation of an EIS when one is necessary (40 CFR Part 1508.9). In accordance with 40 CFR 1502.1, the EA is intended to provide GSA, the public, and decision makers a full and fair discussion of significant environmental impacts from the

proposed action and inform decision makers and the public of reasonable alternatives that would avoid or minimize adverse impacts or enhance the quality of the human environment. In addition to providing disclosure, the objective of the EA is to identify an alternative that satisfies the purpose and need of the Proposed Action and minimizes adverse environmental effects.

1.3.2 Scope of the EA

This EA includes an analysis of potential environmental impacts associated with the Proposed Action (Action Alternative) and the No Action Alternative. Data presented in this EA are based on studies and investigations conducted as part of the planning and environmental review process. Studies and investigations conducted for the Proposed Action are detailed (as appropriate) throughout this document. Issues included for detailed analysis in this document were determined through scoping, including input received by agencies and the public.

GSA published a Notice of Intent (NOI) to prepare an EA in the *Federal Register* on September 17, 2018. The NOI invited agencies and the public to submit comments regarding the scope of the EA. The comment period on the NOI ended on October 19, 2018. Comments were received from the City of San Diego and two individuals, Shawn Hibbets and Stacey Kartagener. GSA considered the comments received in defining the scope of analysis for the EA. The NOI and comments as submitted to GSA are included as Appendix A to this EA, and are summarized in Section 4.1.1.

Based on the Proposed Action and comment(s) received on the scope of the EA, this EA evaluates in detail the potential environmental effects of the Proposed Action with respect to the following environmental issue areas:

- Land Use and Community Issues;
- Traffic and Transportation/Pedestrian and Bicycle Facilities;
- Noise and Vibration; and
- Air Quality and Greenhouse Gas Emissions.

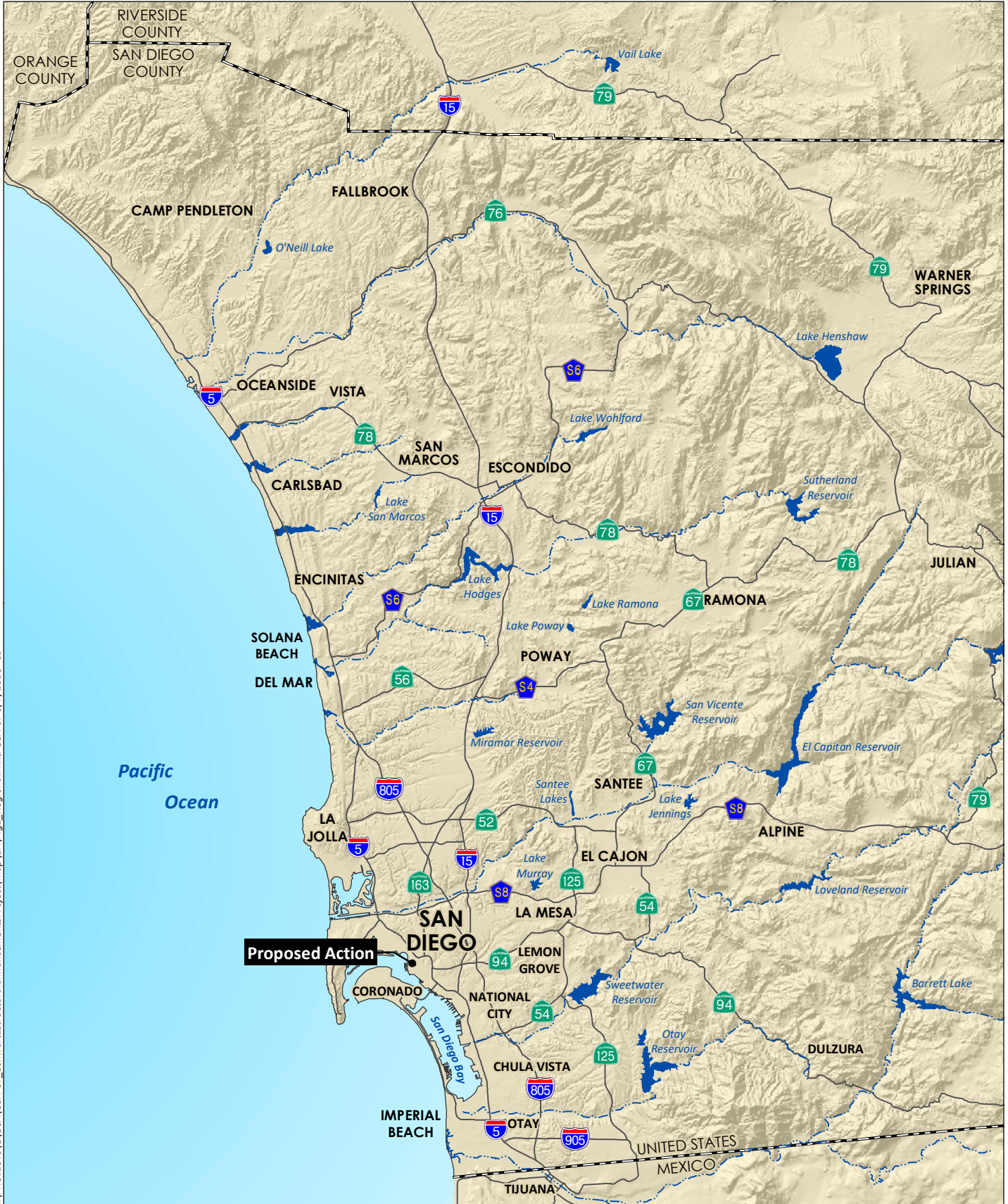
Other environmental issue areas are not analyzed in detail in the EA because there is no potential for the Proposed Action to result in environmental effects (or only negligible effects) associated with that particular issue. The introduction to Chapter 3 of this EA contains brief descriptions of these resource areas and discusses the reasons why the EA does not evaluate potential effects of the Proposed Action related to them in detail.

1.4 DOCUMENT ORGANIZATION

The EA has been prepared in accordance with NEPA, as amended (42 USC 4321 et seq.), as well as CEQ Regulations (40 CFR Parts 1500-1508) and GSA NEPA procedures (GSA Public Buildings Service NEPA Desk Guide). Technical studies and analysis applicable to the Proposed Action are summarized within individual environmental issue sections, and the full technical studies are included in the EA Appendices.

This EA is organized in the following manner:

- **Summary:** Briefly summarizes the purpose and objectives of this EA and the purpose and need for the Proposed Action; describes the Proposed Action (Action Alternative) and the No Action Alternative; identifies proposed action impacts and avoidance, minimization, and mitigation





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measures for each alternative; and describes the coordination with the public and other agencies that has occurred or is planned for the Proposed Action.

- **Chapter 1, Purpose and Need:** Identifies the Proposed Action, states the purpose and need of the Proposed Action; discusses the intended uses of the EA, including the purpose, scope, and organization of the EA; summarizes coordination with public agencies and community stakeholders; and discusses the environmental review process.
- **Chapter 2, Proposed Action and Alternatives:** Describes the Proposed Action and No Action Alternative, as well as the anticipated permits and approvals required for the Proposed Action.
- **Chapter 3, Affected Environment; Environmental Consequences; and Avoidance, Minimization, and Mitigation Measures:** Constitutes the main body of the EA and contains environmental analysis of the Proposed Action alternatives. For each environmental issue analyzed in detail, this chapter includes a discussion of the regulatory setting; the affected environment; environmental consequences; and if applicable, avoidance, minimization, and mitigation measures. This chapter also identifies the environmental issues that are not analyzed in detail and documents the reasons why they are not analyzed in detail. Additionally, Chapter 3 addresses cumulative effects and irreversible or irretrievable commitments of resources that would be involved in the Proposed Action.
- **Chapter 4, Public Involvement and Coordination:** Documents the coordination and consultation that GSA has completed with public agencies and the public regarding the Proposed Action, and provides the comment letters received on the Draft EA during the public comment period and GSA's responses to each comment.
- **Chapter 5, List of Preparers and Contributors:** Identifies the individuals who contributed to the preparation of the EA and associated technical analysis.
- **Chapter 6, References:** Presents the references used in preparation of the EA.

1.5 PUBLIC AGENCY AND COMMUNITY COORDINATION

GSA has coordinated with local public agencies and community representatives and stakeholders during the planning, design, and environmental phases of the Proposed Action, including the City of San Diego. GSA has organized meetings to facilitate discussions of the design and construction of the proposed structural enhancements, and to solicit input from stakeholders, particularly regarding the construction methodology for the Proposed Action. GSA continues to have ongoing coordination with these agencies.

1.6 ENVIRONMENTAL REVIEW PROCESS

GSA initiated the NEPA process by publishing a NOI in the *Federal Register* on September 17, 2018. The NOI marks the first formal step in the EA preparation, as it serves as the official legal notice that the federal agency is commencing preparation of an EA.

The next step in the NEPA process is to conduct the scoping process for the EA. Scoping refers to the process by which federal lead agencies solicit input from the public and interested agencies on the nature and extent of environmental issues and potential impacts to be addressed in the EA, and the

methods by which they will be evaluated. NEPA specifically requires the federal lead agency to consult with other federal agencies that have jurisdiction by law or special expertise on the proposed action (40 CFR 1501.7). Although scoping is discussed in the CEQ regulations largely in the context of EIS preparation and is not formally required for the preparation of EAs, it is the policy of GSA to conduct scoping for EAs in order to streamline the NEPA process (1999 GSA PBS NEPA Desk Guide).

Following the scoping process, GSA prepared the Draft EA to inform the public of the Proposed Action and to allow the opportunity for public review and comment. Pursuant to 40 CFR 1506.6, lead agencies must provide public notice of the availability of the Draft EA to interested persons and agencies. The public and reviewing agencies are provided a 30-day review period for the Draft EA, beginning the day the U.S. Environmental Protection Agency (USEPA) publishes a Notice of Availability (NOA) in the *Federal Register*. The Draft EA was made publicly available on November 19, 2018 for a 30-day period. The public review period closed on December 19, 2018. The NOA for the Draft EA was published in the *Federal Register* on November 19, 2018. A public meeting took place on November 28, 2018 in the Downtown San Diego Community.

During the public comment period, two comment letters were received from the following agencies:

- City of San Diego
- Metropolitan Transit System (MTS)

The Final EA includes and responds to substantive comments received on the Draft EA. The USEPA published a NOA of the Final EA in the *Federal Register* on July 30, 2019.

After completion of the 30-day Final EA review period, GSA will consider all available information on the environmental effects of the Proposed Action identified in the Final EA. If GSA determines that Proposed Action would not significantly impact the environment, GSA will issue a FONSI. If it is determined that the Proposed Action is likely to have a significant effect on the environment, an EIS will be prepared. A NOA of the FONSI will be sent to the affected units of federal, state, and local government.

2.0 PROPOSED ACTION AND ALTERNATIVES

As discussed in Chapter 1, *Purpose and Need*, GSA proposes structural enhancements to the existing Schwartz FOB located in San Diego, California. The purpose and need for the Proposed Action is documented in Chapter 1. This section of the EA describes the Action Alternative developed by GSA to satisfy the purpose and need, as well as a No Action Alternative for comparative baseline analysis.

2.1 ACTION ALTERNATIVE

2.1.1 Structural Enhancements

Alternative would consist of structural enhancements to the portion of the existing Schwartz FOB over Front Street between E and F streets. Existing columns, beams, and framing supporting the building at the Front Street underpass would be reinforced with new steel beams and column support structures and precast concrete paneling. The existing cement plaster ceiling, precast paneling, metal guardrails, and masonry planters would be demolished. The enhanced overpass/tunnel structure would be constructed below the existing second floor framing while maintaining the existing vertical clearance in the underpass. New full height walls would separate the through lanes of Front Street from the pedestrian walkways on either side of the roadway. Figure 3, *Proposed Action Conceptual Design*, depicts the existing conditions of the underpass and a conceptual design of the proposed structural enhancements.

Existing utilities located within the underpass, including lighting and a sprinkler system, would be removed to accommodate the construction and reinstalled following installation of the structural enhancements. The existing walkways along the Front Street underpass, including pavers, curbs, curb ramps, and ramps, also would be removed and replaced. Sidewalk pavers will be replaced with concrete. The new walkways would be structurally separated from Front Street.

2.1.2 Street Closure

Construction of the proposed improvements, as well as drop-off and pick-up of materials and equipment, would require the closure of one or more lanes of Front Street between Broadway and F Street. Within the Proposed Action area, Front Street is a three-lane, one-way southbound roadway.

Street Closure would be implemented in three phases. The first phase will require one lane of traffic on either side of Front Street between Broadway and F Street to be closed while two through lanes would remain open and existing traffic would not need to be rerouted (approximately 5 months on an as-needed basis). The second phase will require full closure of Front Street between E and F Street (approximately 14 months). The third phase is similar to the first phase with one lane of traffic on either side of Front Street to be closed while two through lanes would remain open (approximately 7 months on an as-needed basis).

For the second phase, k-rail barriers would be placed at Broadway and E Street to prohibit access to the work area and allow full closure of Front Street during demolition and construction of the structural enhancements. Access to the driveway for the underground parking lot on the eastern side of Front Street north of E Street (associated with the building located at 101 Broadway) would be

maintained. A temporary crosswalk would be located north of the existing crosswalk at E Street to provide public access between the western and eastern sides of Front Street during construction.

The detour plan would require traffic travelling southbound on Front Street to be diverted at Ash Street (westbound) towards Pacific Highway (southbound) to Broadway, G Street and Market Street, and at A Street (eastbound) towards 4th Avenue and 6th Avenue (southbound) to Market Street (westbound) for a period of up to 14 months. The proposed detours would be accomplished by placing portable changeable message signs on Interstate 5 (I-5) advising drivers of the closure of Front Street at Broadway as well as providing other temporary advance warning signage along Front Street, Ash Street, A Street, Broadway, Harbor Drive, Market Street, Pacific Highway, Columbia Street, Kettner Boulevard, G Street, State Street, 4th Avenue, and 6th Avenue. Full closure of Front Street at Broadway would require the placement of appropriate signage to inform pedestrians and drivers of required detours in addition to the placement of k-rail barriers approximately mid-block between Broadway and E Street to allow access to the existing underground parking garage for the building located at 101 Broadway while restricting access to the construction area. In order to accommodate fire and rescue vehicles and MTS buses during full closure of Front Street, an option to provide one southbound travel lane along 1st Avenue between E Street and F Street would be included in the Traffic Control Plan. This would be accomplished by placing k-rail and appropriate end protection devices in conjunction with advance warning signage along the affected roadway segment; two northbound lanes would be retained. Temporary signal timing improvements would be conducted at the intersections of 1st Avenue/E Street and 1st Avenue/F Street.

2.1.3 Construction Methodology and Schedule

Implementation of the Proposed Action would occur in the following phases: sidewalk demolition, fabrication of construction materials, demolition of existing building materials, and construction of structural enhancements and pedestrian experience walkways. Demolition would occur during the initial construction phase to verify existing conditions and determine the construction material specifications. The majority of materials used to construct the structural enhancements would be fabricated ahead of construction; steel and precast concrete fabrication would occur over a minimum period of seven months, anticipated to begin in January 2020.

Demolition of the existing sidewalk and building materials would occur over a period of five months anticipated to occur during Fall 2019. Demolition of the existing sidewalk and structural materials is anticipated to be conducted primarily using concrete/industrial saws, jackhammers, excavators, forklifts, dump trucks, skid steers, road construction equipment, scissor lifts, welding torches, various hand tools, etc. Construction of the proposed structural enhancements would require the use of lifts and other heavy machinery, in addition to scissor lifts, welding machines, etc. Construction of the sidewalks/paving would utilize concrete trucks, metal saws, concrete chipping equipment, and roto hammers. Construction work will be conducted during normal business hours to minimize the potential nighttime noise effects.

Construction of the structural enhancements and pedestrian walkways is anticipated to begin in Fall 2019 and occur over a period of 26 months. Full vehicular road closure on Front Street is anticipated to occur for up to 14 months, including approximately 2 months of heavy demolition and 12 months of building construction (including installation of the steel columns, beams, and precast concrete panels). Reconstruction of the pedestrian walkway would occur after the structural enhancements in the roadway are completed; partial road closure of only one lane of traffic would occur on an as-needed



Existing Condition



Conceptual Design

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basis during this time and for the remainder of the construction period. Additional construction activities, including installation of concrete sidewalks, curbs, and gutters; stucco application; asphalt paving; and other site finish repairs would primarily occur after the vehicular lanes are reopened. Overall, the construction period is estimated to occur over approximately 26 months, to be completed by Fall 2021. Street closures would be coordinated through the City of San Diego and would obtain a Traffic Control Permit. For safety purposes, pedestrian walkways below the building would be closed during construction of the structural enhancements and pedestrian walkway improvements.

2.1.4 Best Management Practices

This section presents an overview of the best management practices (BMPs) that are incorporated into the Proposed Action. BMPs are existing policies, practices, and measures that would be implemented to reduce the environmental impacts of the Proposed Action. Although BMPs mitigate potential impacts by avoiding, minimizing, or reducing/eliminating impacts, BMPs are distinguished from potential mitigation measures because BMPs are (1) existing requirements for the Proposed Action; (2) ongoing, regularly occurring practices; or (3) not unique to this Proposed Action. In other words, the BMPs identified in this document are inherently part of the Proposed Action and are not potential mitigation measures proposed as a function of the NEPA environmental review process for the Proposed Action. Table 2-1, *Best Management Practices*, includes a list of BMPs.

**Table 2-1
 BEST MANAGEMENT PRACTICES**

BMP	Description	Impacts Reduced/Avoided
Compliance with regulatory and industry geotechnical standards	The Proposed Action would comply with applicable regulatory and industry geotechnical standards, including International Building Code/California Building Code seismic parameters into the project design (e.g., seismic zone, subsurface profile types, seismic and near-source coefficients for acceleration and velocity, and seismic source); removal/replacement of unsuitable surficial materials, if applicable.	Geology (seismic issues)
Water Quality BMPs	The construction contractor would implement standard water quality BMPs during construction. BMPs may include erosion control blankets, hay bales, sand bags, and storm drain inlet protection devices.	Soils (erosion and off-site sediment transport); Water Resources (water quality)
Hazardous Materials and Wastes Management Plan	The construction contractor would implement a Hazardous Materials and Wastes Management Plan to ensure appropriate procedures are in place to address handling, storage, and disposal of hazardous materials and wastes during construction.	Public Health and Safety (Hazardous Waste)
Health and Safety Plan	The construction contractor would implement a Health and Safety Plan to ensure appropriate safety measures are implemented during construction.	Public Health and Safety (Safety)

**Table 2-1 (cont.)
 BEST MANAGEMENT PRACTICES**

BMP	Description	Impacts Reduced/Avoided
Traffic Control Plan	The construction contractor would implement a Traffic Control Plan prepared for the Proposed Action in compliance with the City of San Diego Standard Specifications for Public Works Construction (Greenbook and Whitebook), and California Department of Transportation (Caltrans) Manual of Uniform Traffic Control Devices and U.S. Customary Standard Specifications. The Traffic Control Plan would include a detour plan to be implemented during full closure of Front Street, as well as a requirement for posting parking restrictions and providing covered pedestrian walkways where access is maintained during construction.	Traffic and Transportation/Pedestrian and Bicycle Facilities
Noise and Vibration Control Measures	The construction contractor would implement the following construction BMPs, as applicable, to reduce noise and vibration effects during construction: <ul style="list-style-type: none"> • Properly outfit and maintain construction equipment with manufacturer-recommended noise reduction devices to minimize construction-generated noise. • Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers. • Employ additional noise attenuation techniques as needed to reduce excessive noise levels. Implementation shall be determined by GSA after acoustical review. Such techniques shall include, but not be limited to, the construction of temporary sound barriers or sound blankets between construction/staging areas and nearby noise-sensitive receptors. • Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) to be prohibited. • Material stockpiles and mobile equipment staging, parking, and maintenance areas to be located as far as practicable from noise sensitive receptors. • The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. • The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. 	Noise and Vibration

**Table 2-1 (cont.)
 BEST MANAGEMENT PRACTICES**

BMP	Description	Impacts Reduced/Avoided
Construction Air Quality and Greenhouse Gas (GHG) Emissions Reduction Measures	The Proposed Action would comply with applicable regulatory requirements of the San Diego Air Pollution Control District and standard measures to reduce construction air quality and GHG emissions.	Air Quality and GHG Emissions

2.2 NO ACTION ALTERNATIVE

Under the No Action Alternative, the proposed structural enhancements discussed in Section 2.1.1 would not be implemented and the existing building would remain as is in its current condition. The No Action Alternative would not meet the purpose and need for the Proposed Action; however, the No Action Alternative is carried forward for analysis in this EA to satisfy federal requirements for analyzing “no action” under NEPA (40 CFR 1502.14(d)). The No Action Alternative will be used to analyze the consequences of not undertaking the Proposed Action, not simply conclude no impact, and will serve to establish a baseline for comparison with impacts from the Action Alternative.

2.3 PERMITS AND APPROVALS NEEDED

Permits and approvals that would be obtained for the Proposed Action are listed below:

- GSA Public Buildings Service Commissioner approval of project design
- Traffic Control Permit issued by the City of San Diego

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3.0 AFFECTED ENVIRONMENT; ENVIRONMENTAL CONSEQUENCES; AND AVOIDANCE, MINIMIZATION, AND/OR MITIGATION MEASURES

This chapter discusses the existing conditions and environmental setting, identifies the policy and regulatory framework, and addresses the potential environmental impacts associated with the Proposed Action and No Action Alternative. The discussion of environmental consequences is followed by a list of feasible avoidance, minimization, and mitigation measures designed to reduce or avoid potential impacts, as applicable.

The full range of NEPA topics was considered for analysis in this EA. As part of the scoping and environmental analysis conducted for the Proposed Action, the environmental issues identified below were eliminated from detailed study because the Proposed Action would cause negligible or no impact with respect to those issues. Negligible impacts are effects that are localized and immeasurable at the lowest level of detection. The remaining subsections address those topics for which additional study is warranted to determine whether or not the resources in question would be impacted by the Proposed Action.

NEPA Topics Eliminated from Detailed Evaluation

Cultural and Historic Resources

Cultural resources are nonrenewable resources whose value may be diminished by physical disturbances. Unauthorized excavation, removal, damage, alteration, or defacement of archeological resources on public lands is prohibited under the Archeological Resources Protection Act of 1979. The Proposed Action site is currently developed with an existing FOB for which structural enhancements are proposed. No grading, excavation, or trenching would be required for the Proposed Action; ground disturbance would be surficial and would not encroach into previously undisturbed areas. Thus, there is no potential for cultural resources to be encountered during implementation of the Proposed Action.

Title 36 CFR §60 establishes the National Register of Historic Places and defines the criteria for evaluating eligibility of cultural resources for listing on the National Register. Properties eligible for listing in the NRHP must be at least 50 years old. The existing Schwartz FOB was constructed in 1974 (Jonas & Associates Inc. 2005); therefore, the Schwartz FOB is not considered a potentially eligible historic resource and no impact would occur.

Farmlands/Timberlands

The Proposed Action site is developed and located in an urbanized area of San Diego. It is not located on land under a Williamson Act contract or within a Timber Production Zone, and no agricultural resources are located adjacent to the site. The Proposed Action is not located within an area designated as Prime or Unique agricultural lands by U.S. Department of Agriculture Natural Resources Conservation Service, including forestland, pastureland, and cropland; or farmland of statewide or local importance.

Implementation of the Proposed Action would not convert farmland to non-agricultural uses or affect farmlands or timberlands.

Biological Resources

The Proposed Action site is developed and surrounded by urban development. It does not support sensitive habitat or species, nor would sensitive biological resources be directly or indirectly impacted by construction of the Proposed Action. Therefore, no impacts would occur with respect to these resources.

Wild and Scenic Rivers/Coastal Zone Areas

The Proposed Action site is not located near any designated wild and scenic rivers and is outside the boundary of the Coastal Zone (which extends roughly three blocks inland from the San Diego Bay in the Downtown area) (City 2018a). Therefore, no impacts would occur with respect to these resources.

Floodplain Encroachment

Federal activities within floodplains must comply with EO 11988: Floodplain Management, 33 CFR 1977; and EO 13690: Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input. The Proposed Action site is located outside of the mapped 100-year and 500-year floodplains (Federal Emergency Management Agency 2018). Because the Proposed Action site is not located within the floodplain, the Proposed Action is not expected to have a measurable effect on the frequency, elevation, intensity, or duration of floods, nor would it impact floodplain functions.

Hydrology, Water Quality, and Storm Water Runoff

The Proposed Action would not result in potential impacts related to drainage alteration, increased runoff volumes/velocities, storm drain capacity, and related hazards such as hydromodification and flooding. Implementation of the Proposed Action would not result in an increase of impervious surface area or corresponding increase in post-development runoff volumes and velocities, since the Proposed Action would remove and replace existing surfaces and would not alter on-site drainage conditions. The Proposed Action is subject to a number of regulatory requirements related to hydrology and water quality, including the federal Clean Water Act. Pursuant to GSA guidelines, implementation of Clean Water Act requirements also reflects the associated standards of the local permitting agency, the City. No short-term or operational long-term water quality impacts would occur as a result of the Proposed Action, based on conformance with applicable regulatory requirements and implementation of appropriate water quality BMPs during construction. No changes to the existing storm drain facilities are proposed.

Geology, Soils, and Seismicity

Ground disturbing activities would be limited to removal and replacement of the existing pedestrian walkways and installation of structural enhancements at the existing column support structures within the Front Street underpass. As noted in Table 2-1, the Proposed Action would implement appropriate water quality protection measures, such as erosion control blankets, hay bales, sand bags, and storm drain inlet protection devices, to avoid potential sedimentation effects. No impacts associated with the loss of soil, soil erosion, or sedimentation are anticipated.

No seismic or non-seismic impacts would occur as a result of the Proposed Action, based on compliance with applicable regulatory and industry geotechnical standards (e.g., International Building Code and California Building Code seismic parameters).

Paleontological Resources

The Proposed Action site is currently developed with an existing FOB. No grading, excavation, or trenching would be required during construction of the proposed structural enhancements. Since ground disturbing activities would be surficial and would not encroach into previously undisturbed areas, no paleontological resources would be encountered during implementation of the Proposed Action.

Visual Quality/Aesthetics/Light and Glare

NEPA requires that the federal government use all practicable means to ensure that all Americans have safe, healthful, productive, *aesthetically* (emphasis added) and culturally pleasing surroundings (42 USC 4331(b)(2)). The Schwartz FOB is located within the highly urbanized downtown area of the City of San Diego. There are no scenic vistas or prominent visual resources in the area that would be impacted by the Proposed Action. No views toward scenic resources such as the San Diego Bay or the Pacific Ocean are provided from the site. Although construction of the Proposed Action would temporarily affect the existing visual environment through the introduction of construction equipment, temporary fencing, construction materials and vehicle staging, once construction is complete the visual environment would be similar to the existing conditions. The design of the structural enhancements would be consistent and comply with the GSA Facilities Standards for the Public Buildings Service (PBS-P100; GSA 2017) and other pertinent Federal design guidance documents. No changes to the height, bulk, or scale of the existing building are proposed. As shown in Figure 3 and described in Section 2.1.1, the enhanced overpass/tunnel structure would maintain the existing vertical clearance and introduce new full height walls that would enhance pedestrian safety by separating the through lanes of Front Street from the pedestrian walkways on either side of the roadway. The only visible change would result from the separation of uses (i.e., pedestrian walkways physically separated from the roadway) within the underpass, as well as the installation of new surfaces within the underpass and walkways. The structural enhancements would not result in adverse changes to the existing visual environment or visual quality of the area.

Community Impacts (Parcel Acquisitions and Relocations)

The Proposed Action is located within an existing FOB and would not displace any housing or businesses or require parcel acquisitions. Therefore, these issues have been eliminated from further discussion.

Public Services and Utilities

Public services include local government services such as law enforcement and fire protection, as well as schools and parks, which are discussed in further detail in section 3.1, *Land Use and Community Issues*. Law enforcement in the City is provided by the San Diego Police Department. The Proposed Action site is served by the Central Division, with the nearest station located at 2501 Imperial Avenue, approximately two miles (driving distance) from the Proposed Action site (City 2018b). The City is serviced by the San Diego Fire-Rescue Department. The Fire-Rescue Department has numerous fire stations currently in operation. The nearest fire station to the Proposed Action site is Fire Station No. 1 located at 1222 First Avenue, approximately 0.3 mile (driving distance) from the Proposed Action site (City 2018c).

Utilities include solid waste, potable and recycled water, sewer, storm drainage, gas, and electrical. The Proposed Action site is located in a developed area with existing public services and utilities. Solid waste, water, and sewer services are provided by the City. In addition, storm drains also are maintained by the City. Power is provided by San Diego Gas and Electric (SDG&E).

Impacts to public services and utilities are determined by the presence/absence of an unacceptable change in the level of service to other consumers of those resources or the presence/absence of an increase in demand that could otherwise negatively affect the existing infrastructure. Temporary construction-related impacts to utilities would potentially occur during construction of the Proposed Action, but would be avoided by consultation with responsible utility providers to protect systems in place or arrange for the temporary or permanent relocation of existing utility lines. No utility conflicts or permanent relocations are proposed. Implementation of the proposed structural enhancements would not increase the demand for public services or utilities as no new or expanded uses typically requiring these services are proposed.

During construction of the Proposed Action, temporary detours would result in some traffic diversion, which would temporarily alter emergency access and routes within and around the site. A Traffic Control Plan would be prepared and implemented for the Proposed Action to identify detours to be implemented during full closure of Front Street. An option to provide one southbound travel lane along 1st Avenue between E Street and F Street to allow access for fire and rescue vehicles may be included in the Traffic Control Plan, if feasible. The construction contractor would implement a Health and Safety Plan to ensure appropriate safety measures are implemented during construction in order to minimize and/or eliminate disruption to public utility services in the area.

Hazardous Materials, Waste, and/or Site Contamination

Hazardous Waste Sites

The State Water Resources Control Board GeoTracker database, California Department of Toxic Substances Control Envirostor database, and California Environmental Protection Agency Cortese List provide information on hazardous materials sites in California. GeoTracker is a database and geographic information system (GIS) that provides online access to environmental data. It tracks regulatory data about leaking underground storage tanks, Department of Defense, Spills-Leaks-Investigations-Cleanups, and landfill sites. Envirostor is an online database search and GIS tool for identifying sites that have known contamination or sites where there may be reasons to investigate further. It also identifies facilities that are authorized to treat, store, dispose or transfer hazardous waste. The Schwartz FOB is listed as a cleanup program site on the GeoTracker database for diesel contamination. The case was closed in 1999 and there are no open cases currently at the Proposed Action site. The San Diego Central Courthouse Site, which encompasses the entire block bounded by B Street, C Street, State Street, and Union Street and is located approximately 0.2 mile northwest of the Proposed Action site, is identified in the GeoTracker database as an open cleanup program site as of June 27, 2014. This case involves a County of San Diego Voluntary Assistance Program for oversight to support off-site disposal of soils associated with the expansion that was completed in December 2017; no potential contaminants of concern were specified. No other areas of concern or active cases are identified within the 0.25-mile of the Proposed Action site in the GeoTracker or EnviroStor databases; as such, no significant hazards to the public or the environment related to known contaminations are anticipated to occur.

Hazardous Materials

Construction of the Proposed Action may require the use of hazardous materials (e.g., fuels, lubricants, solvents, etc.), which would require proper storage, handling, use and disposal; however, no routine transport, use, or disposal of hazardous materials would occur. The construction contractor would implement a Hazardous Materials and Wastes Management Plan to ensure appropriate procedures are in place to address handling, storage, and disposal of hazardous materials and wastes during construction. The Proposed Action would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Asbestos-containing Materials

A comprehensive asbestos survey was conducted in 2005 to identify friable and non-friable asbestos-containing building materials (ACMs) and to document the location, material type, asbestos content, friability, and the estimated total quantity within the Schwartz FOB (Jonas & Associates Inc. 2005). Asbestos was identified within floor tiles and spray-applied ceiling material within internal areas of the building, and within roof mastic in external areas of the building; no ACMs were identified within other external areas of the building. Although these ACMs were identified as being in good condition and not considered to pose a threat, the ACMs are managed in place in accordance with current regulations. An asbestos management plan has been developed for the building and is on file with the GSA. None of the identified ACMs would be disturbed during construction of the Proposed Action; as such, no further investigation with regard to potential ACMs is necessary and no associated impacts would occur.

Solid Waste Management and Waste Minimization

Waste would be generated during construction of the Proposed Action, creating a negligible, short-term, impact. Minimization of solid waste would be achieved through construction and demolition debris recycling. The construction contractor would divert recyclable material from the municipal solid waste facilities to the maximum extent practical and in accordance with Executive Order 13514, which requires at least 50 percent diversion of construction and demolition materials and debris. Following construction, no solid waste would be generated in association with the Proposed Action, as no new waste-generating uses are proposed.

Energy Consumption

Design and construction of the proposed structural enhancements would be consistent with prevailing energy conservation and efficiency requirements identified in GSA's PBS 100. Following construction, the Proposed Action would not result in increased energy consumption over existing conditions. Since the Proposed Action would be designed in compliance with the applicable energy regulations, energy efficiency is not considered to be an issue for this proposal and has therefore been eliminated from detailed study.

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3.1 LAND USE AND COMMUNITY ISSUES

This subchapter assesses the following land use and community issues associated with the Proposed Action: potential impacts to existing land use patterns and development trends within the study area; consistency with federal, state, regional, and local plans; potential impacts to parks and recreational facilities; potential impacts to community character and community cohesion; potential environmental justice impacts; and potential impacts related to environmental health and safety risks to children.

3.1.1 Existing and Future Land Use

3.1.1.1 Affected Environment

The Socioeconomic Study Area evaluated for land use and community issues encompasses the Downtown Community Plan (DCP) Area (also known as Centre City), which is depicted in Figure 3.1-1, *Socioeconomic Study Area – Downtown Community Plan Area (with Zoning Designations)*.

Land Use Setting

The Proposed Action footprint is located in the Downtown community of the City of San Diego, California, approximately one-half a mile from the San Diego Bay waterfront, and approximately 13.5 miles north of the U.S.-Mexico border. Surrounding areas include the communities of Barrio Logan and Logan Heights to the south, Uptown and Balboa Park to the north, Golden Hill and Sherman Heights to the east, and the City of Coronado to the west across San Diego Bay. The San Diego International Airport also borders a portion of DCP Area to the north.

Downtown San Diego encompasses eight different neighborhoods: East Village, Columbia, Marina, Cortez, Little Italy, Horton Plaza, Gaslamp, and Core. Extensive redevelopment has taken place in these neighborhoods over the past 20 years or more; they include a residential population of approximately 44,000 people, and are the heart of the business, arts, and entertainment communities. There is ongoing development activity in Downtown, with many projects underway or soon to be constructed. These represent a wide range of development types, including low- and high-rise residential, office buildings, mixed-use developments, hotels, and public projects.

The Proposed Action footprint is situated in the Horton Plaza Neighborhood of Downtown. This neighborhood is composed of a 15-block area that is the center of Downtown's commercial activity, including high-rise office buildings, stores, hotels, theaters, restaurants, and other uses. Residential opportunities are more limited in the Horton Plaza neighborhood compared to other Downtown CPA neighborhoods, but include several high-rise condominium and apartment buildings and multi-family residential complexes among the predominantly commercial uses.

Land Use and Zoning Designations

The site is zoned as CCPD-PC (Centre City Planned District: Public/Civic) and CCPD-OS (CCPD: Park/Open Space) in the City's Zoning Map (Figure 3.1-1); designated for Multiple Uses on the City's General Plan Land Use Map; and designated Public/Civic in the Downtown Community Plan. The site is also located in an Employment Required Overlay area, which requires that at least 50 percent of the area be devoted to office, education, retail, or other commercial uses.

Existing Land Uses

The Proposed Action footprint is currently occupied with existing Schwartz FOB, a federal government-owned building and a public/government use. Bounded by E Street to the north, F Street to the south, 1st Avenue to the east, and Union Street to the west, the building spans Front Street and occupies a full city block. The existing building is a six-story structure with two sub-basements. There is a public plaza along the west side of Front Street that includes the E Street Mall and the area immediately adjacent to the courthouse, north of the Proposed Action site, as well as public open space turf areas to the south of the Schwartz FOB (refer to Figure 2).

Much of the land surrounding the Proposed Action footprint is occupied by other buildings devoted to government uses, including federal, state, and County courthouses. Immediately to the east, across 1st Avenue, is the Horton Plaza shopping center, and other shops, offices, hotels and apartment/condominium buildings are located nearby.

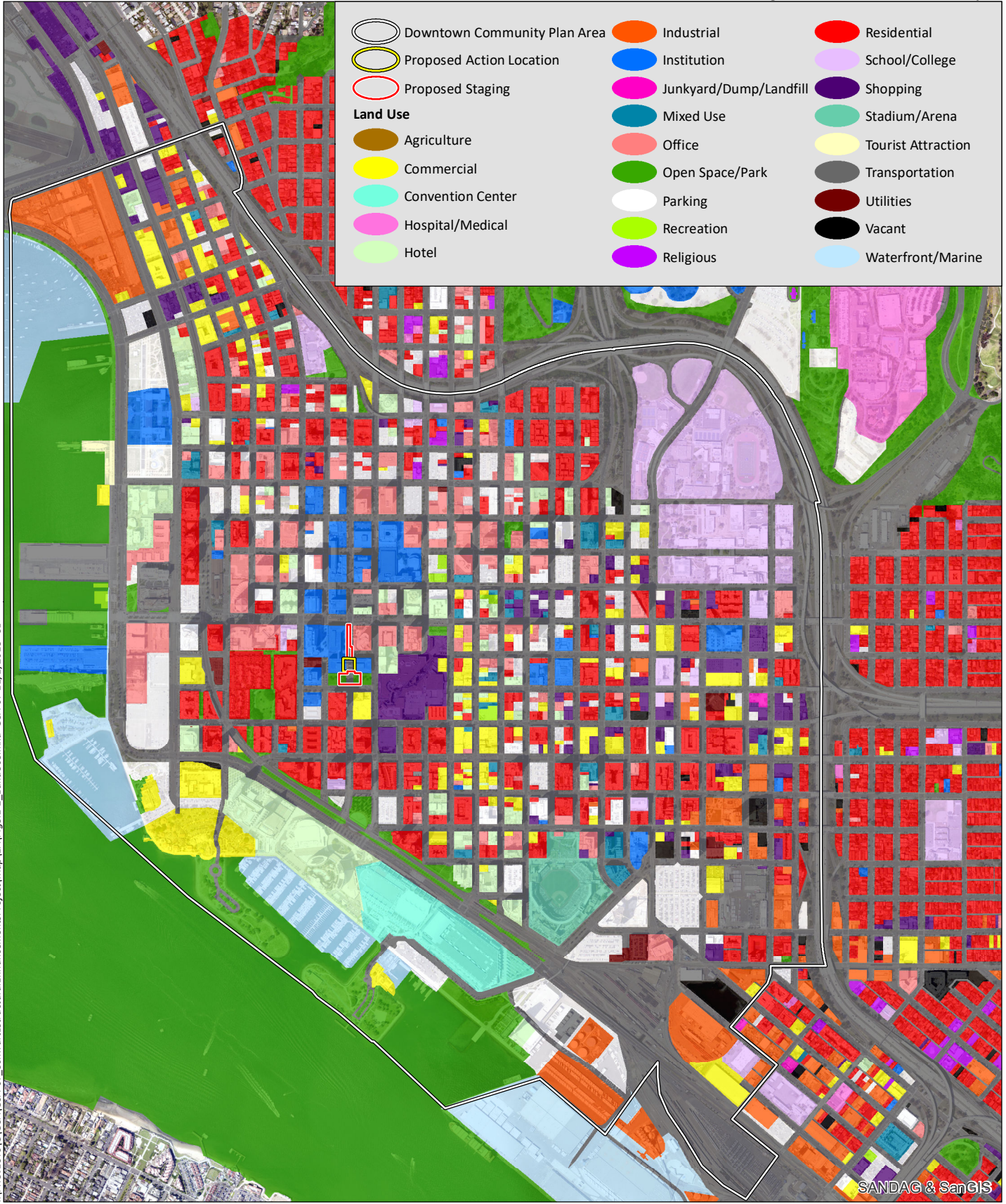
As shown in Figure 3.1-2, *Existing Land Uses in the Proposed Action Vicinity*, the remainder of the DCP Area, outside the immediate vicinity of the Proposed Action footprint, largely consists of dense urban development, including multi-family residential, commercial, office, waterfront, industrial, and related uses. While many parts of the DCP Area have been transformed by two decades of redevelopment into a vibrant community, poverty is also present. Much of the East Village neighborhood of Downtown was designated in 2016 as part of a federal Promise Zone; it is characterized by high unemployment (especially youth unemployment), concentrated poverty, rising crime, low educational attainment, insufficient access to healthy foods, and the least affordable housing in the nation.

Development Trends in the DCP Area

The *2006 San Diego Downtown Community Plan* presents a vision of an evolving, exciting urban center of regional economic, residential, and cultural activity, functioning as a center of influence on the Pacific Rim. The Downtown area's renaissance began in the 1980s and continues today, with ongoing infill development transforming its many residential neighborhoods and commercial centers. The Downtown community's established land use pattern is expected to remain, although some land use intensities are increasing as a result of DCP implementation. The Horton/Gaslamp neighborhood, where the Proposed Action is sited, experienced the first successful wave of downtown redevelopment in the 1980s, and is expected to experience fewer changes than other Downtown neighborhoods under the DCP (DCP 2006).

By 2050, the San Diego regional population is projected to grow by nearly a million people. This growth is anticipated to lead to about 460,000 more jobs and over 325,000 more apartments, condos, houses, and other types of housing (San Diego Association of Governments [SANDAG] 2018). As discussed later in Section 3.1.4, *Community Cohesion and Community Character*, substantial population, housing, and employment growth is expected to occur in the DCP Area.

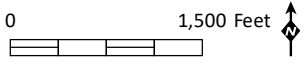
Appendix B, *Cumulative Projects*, and Figure 3.1-3, *Cumulative Projects in the Downtown Community Plan Area*, present development projects in the DCP Area that are under construction, pending construction, or have recently been completed. They are based on the Civic San Diego Downtown Development Status Log for July 2018, as well as input from City staff; construction dates were provided to Civic San Diego by the Applicant/Developer. As shown in Appendix B, 62 projects are underway in the DCP Area, totaling 11,472 residential units, 561,000 square feet of retail space, 1,994,000 square feet of

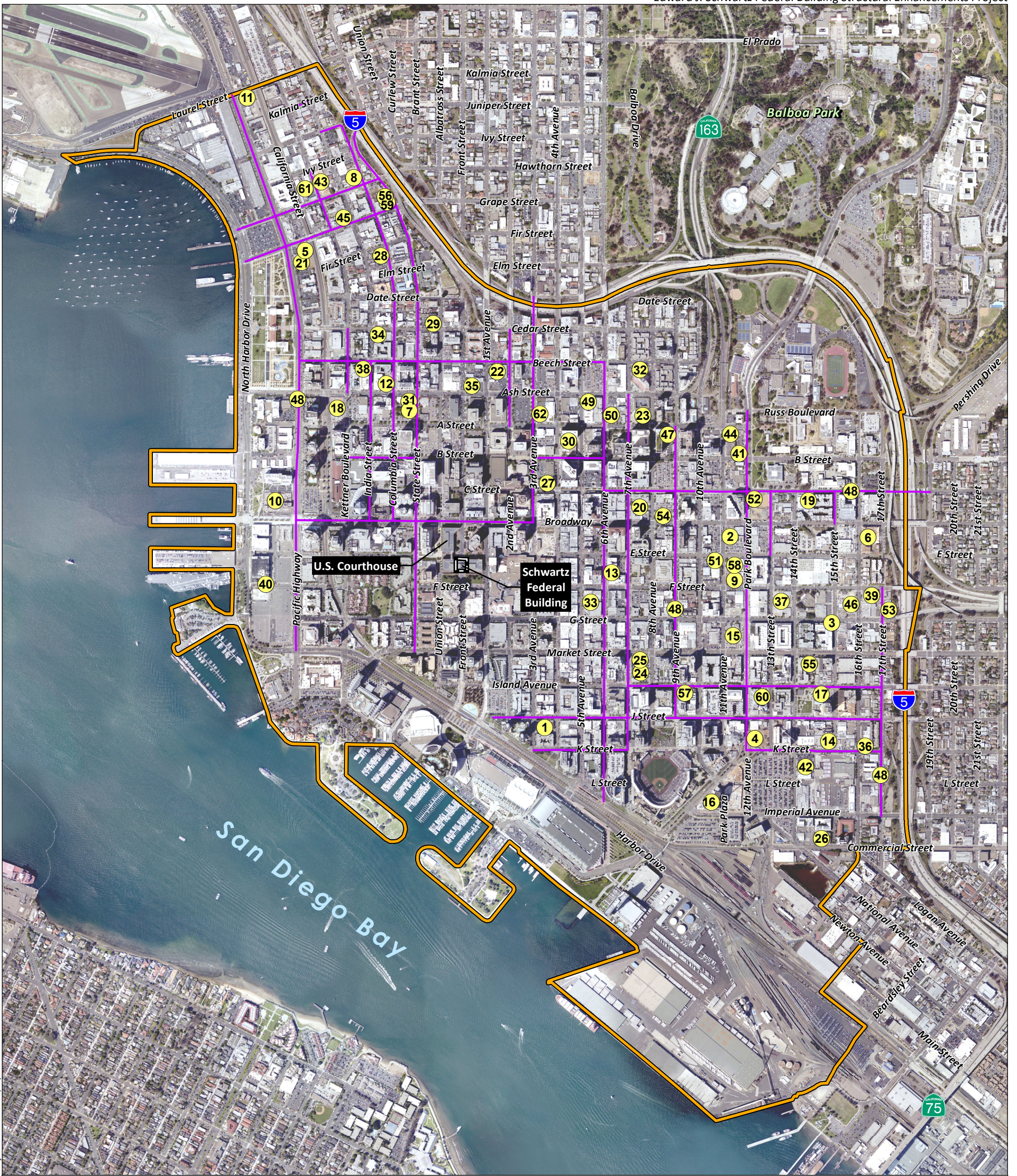


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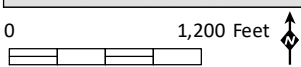
Source: Aerial (SanGIS, 2017)





Downtown Community Plan Area	Luma (520 W. Ash)	7th & Market	India & Beech	10th & E
Proposed Action Location	Moxy Hotel	14th & Commercial	Lucia Nel Cielo	13th Park & C
Projects Under Construction	Nook East Village	1122 Fourth Avenue	Manchester Pacific Gateway	17th & G
4th & J	Park + Market	1836 Columbia Street	Mcdonald's Remodel	800 Broadway
11th & Broadway	Park 12 (Ballpark Village)	320 West Cedar	Modera San Diego	Bahia View
15th & G	Pinnacle at the Park - Phase 2	450 B Office Building	Pacific & Broadway - Parcel 1	Columbia & Hawthorn
330 13th Street	Savina (Kettner & Ash)	499 West Ash	Pacific Heights	EV 9th & Island
915 Grape Street	The Beacon	777 Beech	Shake Shack Little Italy	Pinnacle 11th & E
Broadstone Makers Quarter	The Block	AC Hotel	Streetlights Makers Quarter	State & Grape
Carte Hotel	Valentina (1919 Pacific Hwy)	Cedar Park	The Rey Phase 2	Ezabelle
Contour	Projects Approved (Pending Construction)	Citiplace	San Diego Downtown Mobility Plan	Kettner & Hawthorn
F11	1st & Beech	Creativo	Projects Submitted (Pending Approval)	Third & A
Intercontinental Hotel	7th & A	East Village Green Parking Garage	5th & Ash	
Laurel Pacific Valero	7th & Island Hotel		6th & A	

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Source: Aerial (SanGIS, 2017)

office space, 3,347 hotel rooms, 380 public parking spaces, and San Diego Downtown Mobility Plan roadway improvements.

3.1.1.2 Environmental Consequences

Action Alternative

The Action Alternative would be consistent with existing and planned land uses in the DCP Area. It would entail structural enhancement of an existing civic building that would continue to integrate with surrounding uses in the same manner as the existing Schwartz FOB.

The Action Alternative would occur on land designated and zoned for public/civic use. Demolition and reconstruction of the Front Street underpass portion of the building to improve its structural integrity would be compatible with the underlying civic land use designation/zoning and surrounding institutional, commercial, and residential uses. During construction of the Action Alternative, detour routes would be provided along some roadways that are scheduled for improvements under the San Diego Downtown Mobility Plan, including the installation of “cycle tracks,” or bike lanes separated from vehicular travel by physical barriers (refer to Figure 3.1-3). Consideration would be given to potential street closures/detours associated with other construction projects occurring within the proposed detour route(s), based upon guidance from City staff. GSA and the construction contractor would coordinate with City staff early in preparation for construction of the Action Alternative to determine the appropriate detour options that would minimize conflicts with other projects that are under construction. Detours would only be required during full closure of Front Street between E and F Street, which is anticipated to occur for a period of up to 14 months. The Action Alternative would not result in long-term adverse impacts to existing or planned land uses.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented and the existing building would remain in its current condition. Retaining the existing Schwartz FOB as is would not result in adverse impacts to existing or future land uses, since it is already consistent with existing and designated uses. Although the No Action Alternative would not meet the purpose and need for the Proposed Action, it would result in no impacts to existing or planned land uses.

3.1.1.3 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because the Action Alternative and No Action Alternative would be consistent with existing and planned land uses, no avoidance, minimization, and/or mitigation measures are required.

3.1.2 Consistency with State, Regional, and Local Plans

3.1.2.1 Regulatory Setting

The Public Buildings Amendments of 1988 (40 USC 3312) requires GSA to comply with, to the extent feasible, national building codes, consider local zoning laws, and consult with state and local government. This law does not subject the U.S. Government to local requirements; rather, it mandates

consultation and informed decision making. GSA strives to comply, to the extent possible, with local regulations, including land use plans.

As a modification of a federal office building, the Proposed Action is subject to GSA's guidelines for development of public spaces, as defined in its document *Achieving Great Federal Public Spaces: A Property Manager's Guide*. The local and regional plans, policies, and ordinances that pertain to land use planning within the Proposed Action area include the following: the City's General Plan, DCP, and the San Diego International Airport (SDIA) Airport Land Use Compatibility Plan (ALUCP). These plans are summarized below.

GSA Achieving Great Federal Public Spaces

In 2007, GSA published guidelines entitled *Achieving Great Federal Public Spaces: A Property Manager's Guide*, as part of GSA's efforts to evaluate and improve public spaces and transform federal spaces into civic places. According to this guide, GSA buildings and public spaces should:

- Reflect the dignity and accessibility of government;
- Be secure and welcoming;
- Improve tenant satisfaction and building revenue;
- Provide a forum for tenant activity and public use; and
- Act as a catalyst for downtown revitalization.

The guide recognizes as a key challenge the need to increase security at federal facilities while providing welcoming public spaces. It presents an overall strategy for improvement of a facility's public spaces, including physical enhancements, partnerships with communities, and better management practices.

City of San Diego General Plan

As required by State Planning and Zoning Law, the City developed a comprehensive, long-term plan for the physical development of the City, and other relevant lands; this plan is known as the General Plan (City 2008, as amended). The General Plan consists of 10 elements that provide city-wide policies to further the City of Villages smart growth strategy and also references a series of community plans, which are intended to provide area-specific guidance on development in City; the DCP is the community plan that specifically governs land use and community issues at the Proposed Action site.

The General Plan elements of relevance to the Proposed Action include the Urban Design Element and Mobility Element. Other applicable elements, such as the Noise Element, are addressed elsewhere in this EA.

The Urban Design Element guides physical development toward a desired image that is consistent with the social, economic, and aesthetic values of the City. The relevant policies of the Urban Design Element for the Proposed Action are listed below.

- UD-E.2. Treat and locate civic architecture and landmark institutions prominently.
 - a. Where feasible, provide distinctive public open space, public art, greens, and/or plazas around civic buildings such as courthouses, libraries, post offices, and

community centers to enhance the character of these civic and public buildings. Such civic and public buildings are widely used and should form the focal point for neighborhoods and communities.

- b. Incorporate sustainable building principles into building design (see also Conservation Element, Section A).

The purpose of the General Plan’s Mobility Element is to improve mobility through development of a balanced, multi-modal transportation network. The relevant policies of this element for the Proposed Action are listed below.

- ME-A.1. Design and operate sidewalks, streets, and intersections to emphasize pedestrian safety and comfort through a variety of street design and traffic management solutions, including but not limited to those described in the Pedestrian Improvements Toolbox, Table ME-1.
- ME-A.4. Make sidewalks and street crossings accessible to pedestrians of all abilities.
 - a. Meet or exceed all federal and state requirements.
 - b. Provide special attention to the needs of children, the elderly, and people with disabilities.
 - c. Maintain pedestrian facilities to be free of damage or trip hazards.
- ME-A.5. Provide adequate sidewalk widths and clear path of travel as determined by street classification, adjoining land uses, and expected pedestrian usage.
- ME-A.7. Improve walkability through the pedestrian-oriented design of public and private projects in areas where higher levels of pedestrian activity are present or desired.
 - c. Encourage the use of non-contiguous sidewalk design where appropriate to help separate pedestrians from auto traffic. In some areas, contiguous sidewalks with trees planted in grates adjacent to the street may be a preferable design.

Downtown Community Plan

The DCP is part of the City’s General Plan, and is intended to provide more area-specific guidance on development in the Downtown area. The DCP addresses 12 topics; those of particular relevance to the Proposed Action are Urban Design and Transportation.

While the federal government is not subject to the policies outlined in the DCP, GSA strives to comply with local land use plans per the Public Buildings Amendments of 1988. As stated in the DCP:

“While the Community Plan applies to all of downtown, several federal and State agencies own property in the area, and the Port of San Diego has planning jurisdiction along the waterfront... Sites owned by the County, State, and federal government, and Navy may be exempt from certain planning regulations based on primacy or inter-governmental immunity. Prominent ownerships include...:

- Federal Government. The federal government maintains jurisdiction over lands in its ownership, most notably the Edward J. Schwartz Federal Building and adjacent land being used for the expansion of the Federal Courthouse.”

The DCP further notes:

“For purposes of the Downtown Community Plan and Local Coastal Program, the plan may provide guidance, but the development standard and land use plan policies only pertain to properties within the City of San Diego, and exclude those within the San Diego Unified Port District or federal lands.”

Urban Design Goals

5.3-G-5 Maximize sky exposure for streets and public spaces.

5.4-P-5 Emphasize pedestrian orientation of buildings, especially in the retail districts and Neighborhood Centers.

5.8-G-1 Promote sustainable development and design downtown.

Transportation Goals

7.2-G-3 Safe, walkable neighborhoods with improved street crossings, sidewalks and pedestrian amenities.

San Diego International Airport Land Use Compatibility Plan

With limited exceptions, California law requires preparation of a compatibility plan for each public airport and military airport in the state. The SDIA is the public aviation facility nearest the Proposed Action site; the SDIA ALUCP is the fundamental tool used to promote land use compatibility between airports and the surrounding land uses in the airport vicinity. The SDIA ALUCP is intended to (1) provide for the orderly growth of the airport and area surrounding the airport, and (2) safeguard the general welfare of the inhabitants within the vicinity of the airport and the public in general. The ALUCP contains compatibility criteria, maps, and other policies to carry out these objectives (County of San Diego 2008).

The Proposed Action site is approximately one mile from SDIA and is within its Airport Influence Area (AIA). The AIA is defined as “the area in which current or future airport-related noise, overflight, safety, or airspace protection factors may significantly affect land uses or necessitate restrictions on those uses as determined by an airport land use commission” (County of San Diego 2008). The AIA for SDIA serves as the planning boundary for the ALUCP for that airport and is divided into two review areas: (1) Review Area 1 comprises the noise contours, safety zones, airspace protection surfaces, and overflight areas; and (2) Review Area 2 comprises the airspace protection surfaces and overflight areas. The Proposed Action site is within Review Area 2 for SDIA.

Within Review Area 2 for SDIA, building height and obstruction restrictions apply to ensure that no object would interfere with the safe operation of aircraft or impact airport operations. Only land use actions for which the height of objects is an issue are subject to Airport Land Use Commission review. Any proposed development that includes an object over 200 feet above the ground level or that

penetrates the 100:1 slope extending 20,000 feet away from the nearest runway must be submitted to FAA for obstruction evaluation (County of San Diego 2008).

3.1.2.2 Affected Environment

The Socioeconomic Study Area evaluated for land use and community issues encompasses the DCP Area, which is depicted in Figure 3.1-1.

3.1.2.3 Environmental Consequences

Action Alternative

Consistency with *Achieving Great Federal Public Spaces: A Property Manager's Guide*

The Action Alternative has been designed to enhance security within the Front Street underpass while generally maintaining the existing aesthetics of the Schwartz FOB. The Proposed Action would be consistent with the goals of GSA's *Achieving Great Federal Public Spaces: A Property Manager's Guide*.

Consistency with the City General Plan

As an enhancement of an existing federal building, the Action Alternative would be consistent with City's General Plan multiple use land use designation and CCPD-PC and CCPD-OS zoning. The Action Alternative would not result in long-term impacts to the public open space adjacent to the Schwartz FOB that is subject to the CCPD-OS zoning. Furthermore, the continuation of the Schwartz FOB's office function means that the Action Alternative would also be consistent with the City's Employment Required Overlay area requirements.

The Action Alternative consists of structural enhancements to an existing federal building that would not change the size, shape, or overall aesthetics of the existing Schwartz FOB, and would not impact generalized, city-wide land use planning. The Action Alternative would be consistent with the General Plan's goals and policies regarding civic architecture and sustainable building principals, by retaining the existing public open space and incorporating sustainable building design, as applicable (UD-E.2).

Consistent with the Mobility Element, once construction of the structural enhancements is complete, the Action Alternative would maintain pedestrian walkability and enhance pedestrian safety by separating pedestrians from auto traffic (ME-A.1; ME-A.4; ME-A.5; ME-A.7).

Consistency with the Downtown Community Plan

As an enhancement of an existing federal building, the Action Alternative would be consistent with DCP land use designation of Public/Civic. The proposed enhancements would include new full height walls that would separate the through lanes of Front Street from the pedestrian walkways on either side of the roadway; although visibility between these uses would be restricted, the existing vertical clearance in the underpass would be maintained and would not limit sky exposure or sunlight on either side of the underpass (consistent with goal 5.3-G-5). The proposed enhancements would not conflict with the sustainable development principles as it would result in no change in the existing use (5.8-G-1). Consistent with the DCP's Mobility goals, with the exception of temporary closure of the pedestrian walkways along Front Street during construction, the Action Alternative would maintain pedestrian walkability and safety by separating pedestrians from auto traffic (5.4-P-5; 7.2-G-3).

Consistency with the San Diego International Airport ALUCP

As previously noted, the Proposed Action site is located within Review Area 2 of the SDIA ALUCP, and only land use actions that would increase the height of objects are subject to ALUC review in Review Area 2. Because the Action Alternative would not result in an increase in height of the Schwartz FOB, the Action Alternative would not require FAA review and would be consistent with the SDIA ALUCP.

Conclusion

Based on the analysis above, the Action Alternative would be consistent with GSA's *Achieving Great Federal Public Spaces: A Property Manager's Guide*, the City's General Plan, DCP, and the SDIA ALUCP and would not result in adverse impacts related to plan and policy consistency.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements discussed in Section 2.1.1 would not be implemented and the existing building would remain in its current condition. Since the existing Schwartz FOB, which is currently consistent with relevant planning documents, would remain unchanged, no adverse impacts to plan and policy consistency would occur.

3.1.2.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because the Action Alternative and No Action Alternative would be consistent with relevant land use plans and policies, no avoidance, minimization, and/or mitigation measures are required.

3.1.3 Parks and Recreational Facilities

3.1.3.1 Regulatory Setting

Park and recreational facilities within the DCP Area are governed by the DCP Parks, Open Space and Recreation Element, which is intended to assure that the recreational needs of the community are met. It establishes goals and policies for a comprehensive open space network in the DCP Area, and identifies opportunities for development of additional parks and recreational facilities throughout the community.

3.1.3.2 Affected Environment

As shown in Table 3.1-1, *Public Parks and Recreational Facilities in the Socioeconomic Study Area/ Downtown Community Plan Area*, 25 parks/recreational facilities are located within the DCP Area, and 9 more have been identified for development in the DCP. The closest parks to the Proposed Action site are the Federal Courthouse Park, Horton Plaza Park, and Pantoja Park, identified in bold in Table 3.1-1.

The Federal Courthouse Park consists of a plaza running along the west side of Front Street, and includes the E Street Mall and the area immediately adjacent to the courthouse north of the Proposed Action site. Horton Plaza Park, on the south side of Broadway between Broadway Circle and Fourth Avenue (less than 1,000 feet northeast of the Proposed Action site), includes a 1.3-acre urban plaza, historic water fountain, outdoor amphitheater, and other features. Pantoja Park, San Diego's oldest park (built in 1850), is located in the Marina neighborhood, less than 1,000 feet southwest of the Proposed Action

site; it includes grass, trees, benches, and a statue. In addition, south of the Proposed Action site there are landscaped open space areas with turf on either side of Front Street that are open to the public; these are not considered parks by the City Parks Department, but are identified in the DCP as the Federal Building Parks.

**Table 3.1-1
 PUBLIC PARKS AND RECREATIONAL FACILITIES IN THE SOCIOECONOMIC STUDY AREA/
 DOWNTOWN COMMUNITY PLAN AREA**

Park	Jurisdiction	Neighborhood
Existing Parks		
Amici Park	San Diego Unified School District & Little Italy Association	Little Italy
Children’s Museum Park	City of San Diego	Marina
Children’s Park	City of San Diego	Marina
City College	San Diego City College	City College
Civic Center Plaza	City of San Diego	Core
Convention Center Park	Unified Port of San Diego	East Village
County Waterfront Park	County of San Diego	Little Italy
Embarcadero Marina Park North	Unified Port of San Diego	Marina
Embarcadero Marina Park South	Unified Port of San Diego	Marina
Fault Line Park	Pinnacle Corporation	East Village
Federal Courthouse Park	GSA	Horton
Gaslamp Square	City of San Diego	Gaslamp
Horton Plaza Park	City of San Diego & Westfield Co.	Horton
Martin Luther King Jr. Promenade	Varies (includes HOAs and businesses)	Marina, Gaslamp
Old Police Headquarters	Unified Port of San Diego	Marina
Outfield Park	City of San Diego	East Village
Pantoja Park	City of San Diego	Marina
Piazza Basilone	City of San Diego	Little Italy
Piazza della Famiglia	City of San Diego	Little Italy
Ruocco Park	Unified Port of San Diego	Marina
San Diego Bayfront Park	Unified Port of San Diego	Convention Center
San Diego High School	San Diego Unified School District	City College
South Embarcadero Esplanade	Unified Port of San Diego	Marina
Tuna Harbor Park	Unified Port of San Diego	Marina
Tweet Street Park	City of San Diego	Cortez
Planned Parks		
Civic Square	City of San Diego	Civic Core
East Village Green	City of San Diego	East Village
Freeway Lids	City of San Diego	East Village, Cortez Hill
Navy Broadway Park	City of San Diego	Columbia
Navy Pier	Unified Port of San Diego	Marina
North Central Square	City of San Diego	East Village
North Embarcadero Promenade	Unified Port of San Diego	Marina, Columbia, Little Italy
Post Office Square	City of San Diego	East Village
St. Joseph’s Park	City of San Diego	Cortez Hill

Source: Civic San Diego 2018b

3.1.3.3 Environmental Consequences

Action Alternative

As previously noted, the Action Alternative would use approximately half of the public open space south of the Schwartz FOB as a staging area (refer to Figure 2). These areas are not designated City parks, but landscaped open space areas associated with the Schwartz FOB. Although public access to these areas would be prohibited for the duration of construction, the open space outside of the designated staging areas would remain open to the public. Vehicle access from Front Street to the adjacent Federal Courthouse Park would be prohibited during full closure of Front Street. The Action Alternative would not, however, preclude pedestrian access to the Federal Courthouse Park, as access would still be available from Union Street and First Avenue to the west and east of the park, respectively. The Action Alternative would not adversely affect other park and recreational facilities in the DCP Area. No long-term impacts would occur to park or recreational facilities.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not result in adverse impacts to existing or planned parks and open space in the area. Although the No Action Alternative would not meet the purpose and need for the Action Alternative, it would result in no impacts to parks and recreational facilities.

3.1.3.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because the Action Alternative and No Action Alternative would not adversely affect parks or recreational facilities on a long-term basis, no avoidance, minimization, and/or mitigation measures are required.

3.1.4 Community Cohesion and Community Character

3.1.4.1 Regulatory Setting

NEPA established that the U.S. Government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings [42 USC 4331(b)(2)]. In its implementation of NEPA, GSA directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

3.1.4.2 Affected Environment

The analysis presented in this subchapter is based on SANDAG and other applicable data obtained through a desktop constraints analysis of the Socioeconomic Study Area conducted using Google Earth® and ArcGIS® with overlays of the Proposed Action footprint, as well as available land use plans and other sources of published information.

This EA uses demographic statistics and regional growth forecasts prepared by SANDAG to analyze potential community impacts. SANDAG is the regional planning agency for the San Diego area and is responsible for preparing demographic and economic statistics and regional growth forecasts. SANDAG data are available at the regional, subregional, community, and census tract levels.

SANDAG's demographic statistics are based on the 2010 U.S. Census, augmented by annual population and housing estimates that are developed in cooperation with local agencies and the California Department of Finance. The SANDAG demographic statistics used in this EA are based on the 2016 estimates, as well as 2010 Census-based data for employment (since more recent SANDAG estimates are not available for this category). Growth forecasts are based on the SANDAG Series 13 Regional Growth Forecast. Demographic data are presented for Census Tract (CT) 53.00, which is a subset of the DCP Area, as well as for the DCP Area as a whole. For comparative purposes, data are also presented for San Diego County as a whole.

Community Setting

The socioeconomic study area, i.e., the DCP Area (also known as Centre City), is highly urbanized; it encompasses the 1,445-acre metropolitan core of the City and is highly developed with a mix of urban, high-density uses that include multi-story office, commercial/retail, and residential uses; industrial warehouses; parks/open space; and public/institutional facilities.

The street grid includes many one-way streets. Inside the Proposed Action footprint, Front Street is one way southbound; F Street is one way westbound, and E street is one way eastbound and closed westbound at this location (the closed portion serves as a public plaza/mall). Union Street (on the west side of the site) and 1st Avenue (on the east side) are both two-way north-south streets. Broadway (on the north side of the site) runs east-west, and is also a two-way street.

Major north-south car/truck access routes to the DCP Area are I-5, SR-163, and Pacific Highway, while SR-94 is the major east-west access route. Public transit access is provided via numerous bus lines, as well as the San Diego Trolley's Green, Blue and Orange Lines, and the Amtrak COASTER and Pacific Surfliner.

Demographic Characteristics

The DCP Area and CT 53.00 demographic characteristics reveal that the DCP differs in many respects from the greater San Diego region. In general, the DCP Area and especially CT 53.00 contain a substantially higher than average male population, a relatively large percentage of the population of residents who are between the ages of 20 and 50, and fewer children and teenagers, compared to San Diego region overall. Race and ethnicity patterns in the DCP Area and CT 53.00 are comparable to the San Diego region overall, except that the Black/African American population is substantially higher than the regional average and the population of Pacific Islander/Asian Americans is correspondingly lower than the regional average.

The DCP Area and CT 53.00 both have somewhat lower median household incomes than the San Diego regional average. While a higher than average percentage of households in the DCP Area in general have incomes below the poverty level, the opposite is true for CT 53.00; this is because other Downtown census tracts (primarily CT 51.00 and CT 52.00 in the East Village neighborhood) have high levels of poverty (in some areas exceeding 55 percent of the neighborhood population), which contrast with higher income neighborhoods in the DCP Area, including parts of CT 53.00. Virtually all housing in both

the DCP Area and CT 53.00 consists of attached units (as opposed to single-family homes or mobile homes), and the housing vacancy rate is four to five time higher than the regional average.

Table 3.1-2, *2016 DCP Area, Census Tract 53.00, and San Diego County Population and Housing Characteristics*, presents demographic profiles of the DCP Area and CT 53.00, with data for the San Diego County region provided for comparative purposes.

**Table 3.1-2
2016 DCP AREA, CENSUS TRACT 53.00, AND SAN DIEGO COUNTY
POPULATION AND HOUSING CHARACTERISTICS**

Characteristic	DCP Area	CT 53.00	San Diego County
2016 Population Estimate (SANDAG)	43,928	8,070	3,288,612
Gender (2016 SANDAG)			
Male	57.1%	67.9%	50.3%
Female	42.9%	32.1%	49.7%
Age Distribution (2016 SANDAG)			
Under 10 years	8.8%	4.8%	12.6%
10 to 19	5.2%	4.3%	12.3%
20 to 29	19.9%	22.7%	16.7%
30 to 39	24.4%	24.3%	14.4%
40 to 49	15.0%	16.3%	12.7%
50 to 59	11.3%	10.1%	12.8%
60 to 69	8.2%	7.7%	9.7%
70 to 79	4.4%	4.9%	5.2%
80+	2.9%	4.9%	3.5%
Median Age (2016 SANDAG)	36.5	33.3	35.5
Estimates of Families Below Poverty Level (2016 SANDAG)			
Households with Income Less than \$15,000	22.6%	9.1%	10.7%
Households with Income Less than \$30,000	36.2%	13.3%	23.6%
Median Household Income-Inflation Adjusted (2016 SANDAG)	\$56,215	\$53,289	\$63,403
Population by Race & Ethnicity (2016 SANDAG)			
Non-Hispanic			
American Indian and Alaska Native	0.5%	0.6%	0.4%
Asian & Pacific Islander	8.0%	7.2%	11.9%
Black or African American	8.7%	8.3%	4.8%
White	49.9%	44.7%	46.3%
Other or Multiple Race	2.8%	2.9%	3.2%
Hispanic			
	30.2%	36.4%	33.4%
2016 Total Housing Units (2016 SANDAG)			
Total Occupied Units	20,387	2,790	1,126,029

Table 3.1-2 (cont.)
2016 DCP AREA, CENSUS TRACT 53.00, AND SAN DIEGO COUNTY
POPULATION AND HOUSING CHARACTERISTICS

Characteristic	DCP Area	CT 53.00	San Diego County
Housing Unit Type			
Single Family Residence (detached)	0.3%	0.0%	47.2%
Attached Units	99.6%	100.0%	49.2%
Mobile Homes and Other	0.0%	0.0%	3.6%
Persons per Household	2.15	1.62	2.92
Housing Vacancy Rate	19.5%	24.2%	5.0%
Total Employment (2010 SANDAG)*	65%	41%	66%

Source: SANDAG 2018

*Only 2010 data available; percent of population age 16 and older in labor force.

Growth Dynamics

Table 3.1-3, *Growth Forecasts for Population, Housing, and Employment*, presents SANDAG forecasts for population, housing units, and employment to the year 2050. CT 53.00 and the DCP Area are expected to experience substantially faster population growth during the forecast period than the San Diego region overall. The total number of residents in the DCP Area was forecast by SANDAG to grow by 91 percent, from 32,326 in 2012 to 61,611 in 2050. Within CT 53.00, the predicted population growth rate is 75 percent. These are significantly higher rates than the expected growth for the San Diego Region overall (29 percent).

Table 3.1-3
GROWTH FORECASTS FOR POPULATION, HOUSING, AND EMPLOYMENT

Geographic Area/ Economic Forecast Category	2012	2020	2035	2050	2012-2050	
					Number	Percent Change
DCP Area						
Total Population	32,326	37,479	55,470	61,611	29,285	91%
Total Housing Units	24,138	28,000	40,977	47,648	23,510	97%
Total Employment	67,290	76,503	85,464	99,372	32,082	48%
Census Tract 53.00						
Total Population	6,723	7,440	10,599	11,733	5,010	75%
Total Housing Units	3,840	4,382	7,020	8,168	4,328	113%
Total Employment	33,508	35,106	38,045	39,310	5,802	17%
San Diego County						
Total Population	3,143,429	3,435,713	3,853,698	4,068,759	925,330	29%
Total Housing Units	1,165,818	1,249,684	1,394,783	1,491,935	326,117	28%
Total Employment	1,450,913	1,624,124	1,769,938	1,911,405	460,492	32%

Source: SANDAG 2018

The total number of housing units was forecast by SANDAG to grow 97 percent in the DCP Area and by 113 percent in CT 53.00 between 2012 and 2050, which are again, substantially higher than the growth rate for the housing inventory for San Diego County (28 percent).

The total employment in the DCP Area was forecast by SANDAG to grow 48 percent by 2050. This rate of employment growth is substantially higher than the regional average (32 percent), but approximately half the forecasted growth rate in population and housing. The employment forecast for CT 53.00 (17 percent) is actually lower than the regional average, despite predictions of rapid growth in housing and population; most employment growth in the DCP Area is expected to occur in other parts of Downtown.

Local Schools and Parks

As shown in Table 3.1-4, *Schools and Colleges in the DCP Area*, one public elementary school, one public middle school, six public high schools (including one with two campuses), two alternative/community schools, and six colleges are located in the DCP Area, primarily in the northern and eastern Downtown neighborhoods. The two King-Chavez Community High School campuses are the closest schools to the Proposed Action site, at distances of approximately 0.1 and 0.3 mile, respectively. All other Kindergarten through Grade 12 schools are more than half a mile away from the Proposed Action site.

Table 3.1-4
SCHOOLS AND COLLEGES IN THE DCP AREA

School	Street Address
Public Elementary Schools	
Washington Elementary School	1789 State Street
Alternative/Community Schools	
San Diego Early/Middle College	1425 Russ Boulevard, Suite T112-D
Monarch School	1625 Newton Avenue
Public Intermediate/Middle Schools	
KIPP Adelante Preparatory Academy	1475 Sixth Avenue, Second Floor
Public High Schools	
Garfield High School	1255 16th Street
San Diego High School of Science and Technology	1405 Park Boulevard
San Diego High School of International Studies	1405 Park Boulevard
San Diego High School of Business and Leadership	1405 Park Boulevard
e3 Civic High School	395 11th Ave, 6th Floor
King-Chavez Community High School	201 A Street
King-Chavez Community High School	1010 2nd Avenue
Colleges	
San Diego City College	1313 Park Boulevard
California Western School of Law	225 Cedar Street
New School of Architecture and Design	1249 F Street
Associated Technical College	707 Broadway, Suite 300
Paul Mitchell The School	410 A Street
Fashion Institute of Design & Merchandising	350 Tenth Avenue

As noted under *Parks and Recreation*, two parks, Pantoja Park and Horton Plaza Park, are located less than 0.25 mile from the Proposed Action footprint, and public open space (although not designated public parkland) on the Schwartz FOB property is generally open to the public.

Community Cohesion

Each of the eight neighborhoods comprising the DCP Area, as well as many sub-neighborhoods, has its own character and greater or lesser degree of community cohesion. Overall, however, Table 3.1-2 shows that the Downtown residential community is ethnically mixed and predominantly comprised of people in their twenties and thirties, living in attached, often high-rise, multi-family buildings. The number of persons per housing unit is lower than the regional average. Typically, communities with such characteristics are less cohesive than more ethnically homogenous “family” neighborhoods of single-family homes. Efforts to provide more parks, plazas, “Main Streets,” and neighborhood amenities are intended to help foster social interactions and a greater sense of community, but currently the DCP Area and CT 53.00 in particular would not be considered strongly cohesive communities based on demographics.

Economic Character and Fiscal Setting

Regional Economy

The San Diego economy recorded a decline that started in early 2008, about six to nine months ahead of the national economy. This was the first year of negative real estate growth for the local economy since the early 1990s. The economic problems for the San Diego region started in the housing market in 2007, when a significant slowdown in housing sales and median home price increases was experienced. Construction employment declined in response to a drop in housing starts and then additional factors such as high gasoline prices in the spring of 2008 and the financial collapse in the fall of 2008 compounded the economic weakness in the region.

A recovering construction industry and an improving job market have helped drive optimism about San Diego's economy since the recession in 2008/2009. The San Diego County Index of Leading Economic Indicators, published by the University of San Diego (USD) Burnham-Moores Center for Real Estate, has risen slowly and steadily since early 2009; in March 2018 (the latest data available) it reached an all-time high and its highest level since March 2009 (USD 2018). Measures of help-wanted advertising, initial claims for unemployment insurance, the outlook for the national economy, building permits, and consumer confidence have all been positive in recent economic reports on the regional economy (San Diego Union Tribune 2018). Positive expectations about hiring, revenue, hours offered to workers, and business conditions for the region have continued the trend of optimism toward the local economy (Times of San Diego 2018).

The median household income in the San Diego region in for the 2012-2016 period was \$66,529, slightly higher than the California median of \$63,783 and about \$11,000 higher than the U.S. median income of \$55,322 (U.S. Census Bureau 2018). San Diego County unemployment, which rose precipitously starting in 2008 and reached a high of 10.9 percent in July 2011, continues to decline (U.S. Bureau of Labor Statistics 2018). The region's unemployment rate was 2.9 percent in April 2018, one percentage point lower than April 2017 and just above the lowest unemployment rate on record dating back to December 1999 (2.6 percent). San Diego's unemployment rate remains below both the state and national rates of 3.8 percent and 3.7 percent, respectively (San Diego Regional Economic Development Corporation 2018).

Local Retail Business Community

The economy of San Diego's Downtown is driven by local and regional influences. Jobs in government account for nearly half (46 percent) of all downtown jobs; other important industries are hospitality and restaurants, science and technology, and the arts (Downtown San Diego Partnership 2016). In addition to serving as the government center to the region, Downtown is home to a range of other non-government service establishments, including those in finance, insurance, and real estate. Many other sectors contribute to the Downtown economy, including public uses and maritime-related commercial and industrial uses. Local commercial establishments include neighborhood and visitor serving stores and services, department stores, specialty retail, restaurants, fast food establishments, entertainment venues, gas stations, and banks. Major shopping centers include Horton Plaza and Seaport Village.

3.1.4.3 Environmental Consequences

Impacts to community character and cohesion are based on the Action Alternative's effect on local residents' sense of belonging in relation to their neighborhood or the community at large, as well as anticipated changes in the physical character of the community. Features of community character may include circulation/access, parking, property values, and employment opportunities. The Action Alternative would represent impacts to a community if it presents either a physical or psychological barrier to activity or uses of the community.

Action Alternative

The Action Alternative would not create additional barriers or increase physical division of the DCP Area. The analysis below details the potential for impacts to the primary features of community character.

Community Cohesion

As noted above, the DCP Area in general and the area surrounding the Proposed Action site is not considered a highly cohesive community due to the existing demographic characteristics within the DCP Area. The immediate vicinity of the site is not residential; the land uses along Front Street between Broadway and F Street, which is the area proposed for full or partial closure during construction, consist of government buildings and private office buildings. The Action Alternative would not create a new facility, but rather would structurally enhance an existing FOB. Although short-term, temporary nuisances may be experienced during construction (e.g., visual disturbance, elevated noise levels, air quality effects), the Action Alternative would not divide the established community beyond the existing condition or impair DCP Area residents' feelings of social or cultural affiliation with the community.

Access

The Action Alternative is not expected to have an adverse impact on public access to major activity centers (e.g., Horton Plaza), educational or religious institutions, public parks and recreational facilities, or transit facilities, with the exception of the Federal Courthouse Park and public open space south of the Schwartz FOB, to which access would be temporarily restricted during construction (discussed above in Section 3.1.3.3). As demonstrated in Subchapter 3.2, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, of this EA, during full and partial closure of Front Street associated with construction of the Action Alternative, traffic operations would not degrade substantially compared to existing conditions. Throughout the construction period, access to businesses and community amenities would be maintained via detours; all or most traffic that would normally use Front Street between Broadway

and F Street would be diverted at Ash Street (westbound) towards Pacific Highway (southbound) to Broadway, G Street and Market Street and at A Street (eastbound) towards 4th Avenue and 6th Avenue (southbound) to Market Street (westbound). Impacts to traffic flow and access associated with temporary detours/diversion of traffic would be avoided or minimized during the construction period by limiting hours of construction activity (between 7:00 a.m. and 7:00 p.m.) and preparing and implementing a Traffic Control Plan. Additionally, a temporary crosswalk would be located north of the existing crosswalk at E Street to provide public access between the western and eastern sides of Front Street during construction. These measures would reduce the likelihood that commercial customers, residents, and other users would be discouraged by construction activities and related traffic congestion. The residents and businesses of the local community could experience some temporary noise and traffic circulation restrictions during construction, but the Action Alternative would not result in substantial adverse impacts to community access during construction. After the construction period, the current vehicle and pedestrian circulation system would be restored.

Parking

The Schwartz FOB has an existing private underground parking lot. No vehicle parking is allowed along Front Street between Broadway and F Street, which is the area proposed for temporary closure during construction. Because no street parking is available at this location, none would be displaced by construction. Access to the existing underground parking lot would be maintained during construction. In general, the project vicinity is highly urbanized, with two-hour or unrestricted parallel street parking in most areas, and private surface parking lots provided by individual commercial and residential users. The closest public parking lots and garages to the Proposed Action site are located at: Horton Plaza; either side of Front Street between F Street and G Street; on the east side of Front Street between E Street and Broadway; and along the south side of E Street between Union Street and State Street. The Action Alternative would not result in substantial long-term or temporary parking impacts.

Property Values

Negative marginal impacts on property values due to construction activities would be temporary and would not be substantial. Potential temporary negative effects could include traffic congestion, dust, noise, or visual effects expected to occur during the construction period. These temporary effects would be minimized by implementation of construction BMPs and the Traffic Control Plan and would cease once construction is completed.

The Action Alternative would not be expected to have any long-term effect on property values. The proposed enhancements to the existing Schwartz FOB would not represent particularly noticeable changes to the building, and would not generate positive or negative marginal economic benefits.

Employment

All functions of the Schwartz FOB would continue during and after the proposed construction period and the Action Alternative would not involve displacement of current jobs within the building or at existing government buildings or businesses in the vicinity. The local community may benefit to some degree from the temporary construction employment opportunities that the Action Alternative would generate, but these would be marginal and of short duration.

Conclusion

Overall, the Action Alternative would not result in adverse impacts to community cohesion, parking, property values, or employment. It would generate temporary construction circulation impacts, but would not result in substantial adverse impacts to community access. The Action Alternative would not be expected to result in substantial adverse impacts to community cohesion or community character.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not change parking, access, property values, employment, or the character or degree of cohesion of the surrounding community. Although the No Action Alternative would not meet the purpose and need for the Action Alternative, it would not result in impacts to community cohesion or community character.

3.1.4.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because no substantial adverse impacts associated with community character or community cohesion would result from implementation of the Action Alternative or No Action Alternative, no avoidance, minimization, or mitigation measures are required.

3.1.5 Environmental Justice

3.1.5.1 Regulatory Setting

All projects involving a federal action (funding, permit, or land) must comply with EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by (former) President Clinton on February 11, 1994. This EO directs federal agencies to take the appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. It should be noted that, according to the CEQ: “under NEPA, the identification of a disproportionately high and adverse human health or environmental effect on a low-income population, minority population, or Indian tribe does not preclude a proposed agency action from going forward, nor does it necessarily compel a conclusion that a proposed action is environmentally unsatisfactory. Rather, the identification of such an effect should heighten agency attention to alternatives (including alternative sites), mitigation strategies, monitoring needs, and preferences expressed by the affected community or population.”

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in the Proposed Action.

3.1.5.2 Affected Environment

As shown above in Table 3.1-2, race and ethnicity patterns in the DCP Area and CT 53.00 are comparable to the San Diego region overall, except that the Black/African American population is substantially higher (8.7 percent in the DCP and 8.3 percent in CT 53.00, compared to 4.8 percent for the San Diego

region overall), while the population of Pacific Islander/Asian Americans is correspondingly lower (8.0 percent in the DCP and 7.2 percent in CT 53.00, compared to 11.9 percent for the San Diego region overall). The non-Hispanic White population represents about 50 percent of the total DCP Area population and about 45 percent of the population within CT 53.00, compared to about 46 percent of the region overall. Overall, the DCP Area and CT 53.00 would not be considered to have a disproportionately high minority population.

The DCP Area and CT 53.00 both have lower median household incomes than the San Diego regional average of \$63,403, but while a substantially higher than average percentage of households in the DCP Area in general have incomes below the poverty level (36.2 percent compared to 23.6 percent earning less than \$30,000 per year), the opposite is true for CT 53.00 (13.3 percent compared to 23.6 percent). In addition, the percentage of households in the DCP Area earning less than \$15,000 per year is more than double the average level for the San Diego region (22.6 percent compared to 10.7 percent), although again, this is not true for CT 53.00, where the percentage is 9.1 percent (less than the regional average of 10.7 percent). The federal poverty level threshold ranges from \$12,140 to \$42,380 annually, depending on family size (U.S. Department of Health and Human Services 2018).

Although the DCP Area demographic data indicate it is a low-income area on average (refer to Table 3.1-2), Downtown contains both high and low income neighborhoods. Higher income neighborhoods in the DCP Area include the vicinity of the Proposed Action site and the Marina and Columbia neighborhoods to the west (CT 54.00), where the median income (\$84,564) is substantially higher than the regional average of \$63,403. Low income areas include parts of East Village, where over 55 percent of the neighborhood population is below the poverty level, with a median income of \$26,765.

In summary, the DCP Area in general does not have a disproportionately high minority population, but would be considered a low-income area on average. The Proposed Action site itself is located in a higher income portion of the DCP Area, but some surrounding portions of the DCP Area are low income. Consequently, impacts in the immediate vicinity of the site would not have environmental justice implications, but any substantial, adverse, unmitigated impacts of the Action Alternative in more distant portions of the DCP Area (especially East Village) would be considered to fall disproportionately on a low-income population. In such a case, where there is the potential for environmental justice impacts, EO 12898 requires that extensive outreach efforts be made to the affected community.

3.1.5.3 Environmental Consequences

Action Alternative

The Action Alternative consists of structural enhancements to an existing building, and would not result in long-term noise, air quality, traffic, or other impacts. All impacts would occur during the construction period, and would be temporary and short term.

The following adverse impacts to the DCP Area population could occur as a result of the Action Alternative:

- Temporary construction impacts such as noise increases, air pollutant emissions, and mobility delays or detours; and
- Temporary visual impacts from construction activities.

Economic losses experienced by nearby businesses and government offices during construction are considered unlikely, because access would be maintained and BMPs would be followed to reduce the likelihood that commercial customers, residents, employees, and other users would be discouraged by construction activities and related traffic congestion.

Most construction impacts would be limited to the area immediately surrounding the Proposed Action footprint, which is not an area with a disproportionately high minority or low income population. As described in other sections of this EA, these would include noise, air quality, and traffic impacts, as well as the partial closure of public open space just south of the site.

In addition, street closures required for construction would divert traffic to other parts of the DCP Area. As described in Subchapter 3.2, the Traffic Impact Analysis (TIA; Rick Engineering 2018) concluded that all streets and intersections in the traffic study area would operate at acceptable levels, except for delays or queueing issues at several intersections in the immediate vicinity of the Proposed Action site and to the west; none of these are areas with a disproportionately high minority or low income population.

As noted above, construction impacts would not have environmental justice implications for areas in the immediate vicinity of the site, since it does not have a disproportionately high minority or low-income population. None of the temporary construction effects described above would be expected to be experienced in more distant portions of the DCP Area (e.g., East Village) that may be considered environmental justice communities. Based on the above considerations, no adverse environmental justice impacts would occur.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur; consequently, no temporary construction impacts would occur. No adverse environmental justice impacts would occur.

3.1.5.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because no substantial adverse environmental justice impacts would result from implementation of the Action Alternative or No Action Alternative, no avoidance, minimization, or mitigation measures are required.

3.1.6 Environmental Health and Safety Risks to Children

Pursuant to EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, federal agencies are directed, as appropriate and consistent with the agency's mission, to make it a high priority to identify and assess environmental health risks and safety risks that may disproportionately affect children.

3.1.6.1 Affected Environment

As discussed in Section 3.1.4.2, the two King-Chavez Community High School campuses are the closest public schools to the Proposed Action footprint at distances of approximately 0.1 and 0.3 mile, respectively. All other kindergarten through Grade 12 schools are more than half a mile away from the site. Additionally, the Moskowitz Child Care Center is located within the Schwartz FOB, at an approximate distance of 150 feet from the Proposed Action site. Children at these and other nearby locations have the potential to be disproportionately affected by any health risks associated with the Proposed Action. In addition to local schools, there are residential uses located approximately 90 feet south and 500 feet west of the Proposed Action footprint where children could reside.

3.1.6.2 Environmental Consequences

Action Alternative

As noted above, the closest schools to the Proposed Action site are located at distances of approximately 0.1 and 0.3 mile, respectively. The Moskowitz Child Care Center is approximately 150 feet away, within the existing Schwartz FOB. Areas with mid- to high-rise multi-family residences are similarly close to the site. At this distance, there is the potential for environmental health and safety risks to children from localized construction impacts, but analysis in other sections of the EA indicate that temporary noise and air quality emissions associated with construction would not be substantial at nearby sensitive receptors such as schools and residences. Furthermore, the Proposed Action site would be fenced and under security during construction, so that the likelihood of children entering the site and encountering safety risks is low. Moreover, no long-term sources of environmental health and safety risks would be associated with the Proposed Action. No adverse impacts related to environmental health and safety risks to children are anticipated to occur as a result of the Action Alternative.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur; consequently, no associated impacts would occur. There would be no adverse impacts related to environmental health and safety risks to children.

3.1.6.3 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative and No Action Alternative

Because no substantial adverse impacts related to environmental health and safety risks to children would result from implementation of the Action Alternative or No Action Alternative, no avoidance, minimization, or mitigation measures are required.

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3.2 TRAFFIC AND TRANSPORTATION/PEDESTRIAN AND BICYCLE FACILITIES

This subchapter evaluates potential environmental effects related to traffic and transportation; and pedestrian, bicycle, and public transit facilities as a result of the Proposed Action.

3.2.1 Regulatory Setting

Activities proposed under the Proposed Action would be required to conform to applicable federal, state, and local laws and regulations that guide traffic and the use of transportation facilities. Transportation facilities in the study area are guided by policies and standards set by the City of San Diego. The Mobility Element of the City of San Diego General Plan identifies the proposed transportation network and strategies needed to support the anticipated General Plan land uses. The Mobility Element contains policies that address walking, streets, transit, regional collaboration, bicycling, parking, the movement of goods, and other components of a transportation system. Policies applicable to the Proposed Action are identified in Section 3.1.2.1 of this EA.

3.2.2 Affected Environment

The analysis and conclusions presented in this subchapter are based on the Traffic Impact Analysis (TIA) prepared by Rick Engineering Company dated May 11, 2018, as revised May 31, 2019 (Appendix C). The TIA analyzed traffic conditions on local roadways and intersections within the traffic study area for the Proposed Action under existing conditions and during construction/implementation of the Traffic Control Plan.

Traffic Study Area and Roadway Network

The traffic study area for the Proposed Action includes roadway segments and intersections that are likely to be affected by the Proposed Action. The traffic study area was developed based on the purpose and need of the Proposed Action, City of San Diego traffic study guidelines and discussions with staff, review of traffic analyses of other projects in the immediate area, and a working knowledge of the local transportation system. The traffic study area, shown in Figure 3.2-1, *Traffic Study Area*, includes the following 35 roadway segments and 32 intersections:

Roadway Segments

Ash Street

1. Between Pacific Highway and Kettner Blvd
2. Between Union Street and Front Street

Pacific Highway

3. South of Ash Street
4. Between E Street and G Street
5. Between G Street and Harbor Drive

Columbia Street

6. Between Ash Street and A Street

Front Street

7. Between Ash Street and A Street
8. Between A Street and B Street
9. Between Broadway and E Street
10. Between E Street and F Street

A Street

11. Between Front Street and 1st Avenue

4th Avenue

- 12. South of A Street
- 13. Between Broadway and E Street
- 14. Between E Street and F Street

6th Avenue

- 15. South of A Street
- 16. Between E Street and F Street
- 17. South of F Street

Broadway

- 18. Between Union Street and Front Street
- 19. Between Front Street and 1st Avenue
- 20. Between 3rd Avenue and 4th Avenue

State Street

- 21. Between Broadway and F Street
- 22. Between F Street and G Street

1st Avenue

- 23. Between Broadway and E Street
- 24. Between E Street and F Street

E Street

25. Between Front Street and 1st Avenue

F Street

- 26. Between Union Street and Front Street
- 27. Between Front Street and 1st Avenue

G Street

- 28. Between Pacific Highway and Kettner Boulevard
- 29. Between Kettner Boulevard and State Street

Kettner Boulevard

- 30. North of Harbor Drive
- 35. Between Ash Street and A Street

Market Street

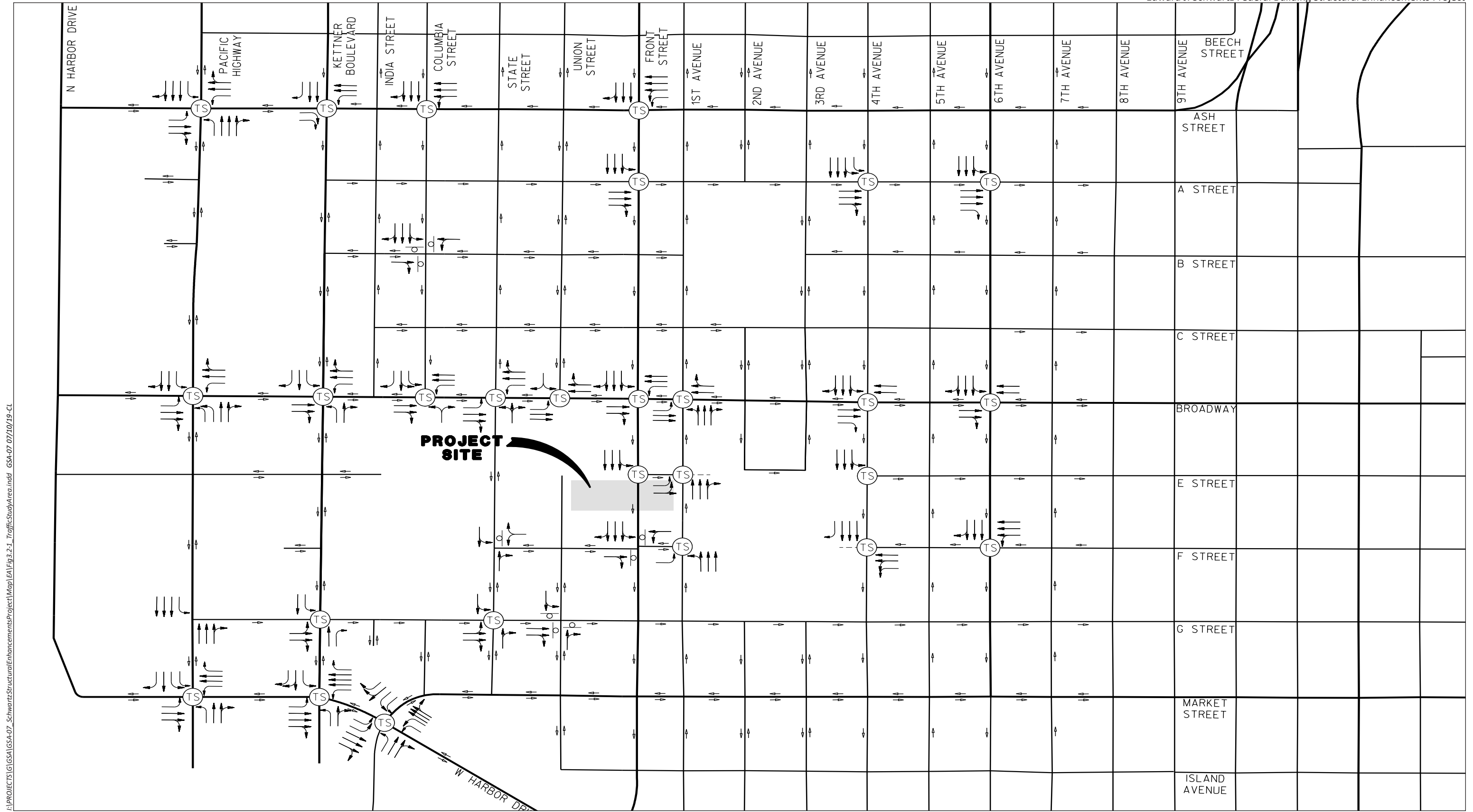
- 31. East of Harbor Drive

Harbor Drive

- 32. Between Pacific Highway and Kettner Boulevard
- 33. Between Kettner Boulevard and Market Street
- 34. East of Market Street

Intersections

- | | |
|---------------------------------|------------------------------------|
| 1. Ash Street/Pacific Highway | 17. F Street/State Street |
| 2. Ash Street/Kettner Boulevard | 18. F Street/Front Street |
| 3. Ash Street/Columbia Street | 19. F Street/1st Avenue |
| 4. Ash Street/Front Street | 20. F Street/4th Avenue |
| 5. A Street/Front Street | 21. F Street/6th Avenue |
| 6. A Street/4th Avenue | 22. G Street/Pacific Highway |
| 7. A Street/6th Avenue | 23. G Street/Kettner Boulevard |
| 8. Broadway/Pacific Highway | 24. G Street/State Street |
| 9. Broadway/State Street | 25. Harbor Drive/Pacific Highway |
| 10. Broadway/Front Street | 26. Harbor Drive/Kettner Boulevard |
| 11. Broadway/1st Avenue | 27. Harbor Drive/Market Street |
| 12. Broadway/4th Avenue | 28. B Street/Columbia Street |
| 13. Broadway/6th Avenue | 29. Broadway/Kettner Boulevard |
| 14. E Street/Front Street | 30. Broadway/Columbia Street |
| 15. E Street/1st Avenue | 31. Broadway/Union Street |
| 16. E Street/4th Avenue | 32. G Street/Union Street |



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Source: Rick Engineering 2019

Roadway Network

Street classifications of study area roadways include major arterials, collector streets, business streets, and local streets. Per the Downtown Community Plan Final Environmental Impact Report, major arterials provide a network of roadway access to prime arterials and the freeway system (City 2006b). They carry moderate to heavy traffic volumes, low to high pedestrian and bicycle movements, and moderate to high transit movements. Collector streets primarily provide connections between local/collector streets and streets of higher classification. The collector street carries low to moderate traffic volumes, low to heavy pedestrian volumes, moderate to heavy bicycle volumes, and low to moderate transit movements. Business streets are usually two-, three- or four-lane facilities that function as either one- or two-way facilities. The business street typically carries a high volume of traffic at low travel speeds (given the short spacing of traffic signals at each block). Local streets generally carry low traffic volumes, low to heavy pedestrian volumes, and low to moderate bicycle volumes. Existing roadways in the vicinity of the Proposed Action are presented in Table 3.2-1, *Existing Roadways in the Vicinity of the Proposed Action*.

**Table 3.2-1
EXISTING ROADWAYS IN THE VICINITY OF THE PROPOSED ACTION**

Roadway	Number of Lanes	Direction	Classification	Parking
Front Street	Three	One-way southbound	Major Arterial	Prohibited
State Street	Two	Two-way	Local Street	Permitted
1st Avenue	Three	One-way northbound	Business Street	Permitted
4th Avenue	Three	One-way southbound	Business Street	Permitted
6th Avenue	Three	One-way southbound	Business Street from Ash Street to Broadway, Local Street south of Broadway	Permitted
Broadway	Four	Two-way with raised median, two lanes of travel in each direction	Collector Street west of 1st Avenue, Business Street east of 1st Avenue	Prohibited
E Street	Two	One-way eastbound	Business Street	Prohibited
F Street	Two	Two-way	Collector Street	Permitted
Pacific Highway	Four	Two-way with painted/raised median	Major Arterial	Permitted
Ash Street	Three	One-way westbound	Major Arterial west of 1st Avenue, Business Street east of 1st Avenue	Permitted
A Street	Three	One-way eastbound	Major Arterial west of 1st Avenue, Business Street east of 1st Avenue	Permitted
Harbor Drive	Four	Two-way	Major Arterial	Prohibited
Market Street	Four	Two-way with raised median	Major Arterial	Permitted
Columbia Street	Three	One-way southbound	Local Street	Permitted
Kettner Boulevard	Four	Two-way with three southbound travel lanes and one northbound travel lane	Major Arterial	Permitted
G Street	Two west of Front Street, three east of Front Street	One-way eastbound	Business Street	Permitted

Source: Rick Engineering Company 2019

Methodology and Thresholds

Level of service (LOS) is the professional industry standard term used to denote the different operating conditions that occur on a given roadway segment or intersection under various traffic volume loads and delay times. LOS is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometrics, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection and is defined on a scale of A to F, where LOS A represents the best operating conditions, and LOS F represents the worst operating conditions. LOS A facilities are characterized as having free-flowing traffic conditions with no restrictions on maneuvering and little or no delays. LOS F facilities are characterized as having highly unstable, congested conditions with long delays. In general, LOS D or better is considered acceptable for roadway, freeway, and intersection operations.

Roadway Segments

The LOS of roadway segments is based on the functional classification of the roadway, maximum capacity, roadway geometrics, and average daily trips (ADT). The extent of a project's traffic impact on a roadway segment is measured in terms of the change in the volume-to-capacity ratio (V/C) caused by the addition of project traffic. V/C is a measure of traffic demand on a roadway segment (expressed as volume) compared to its traffic-carrying capacity. Analysis of morning and afternoon peak hour roadway segments uses the results of signalized intersection analyses, the roadway classification, and free flow speed to calculate an average travel speed. The average travel speed is used to determine the roadway segment LOS. A number of the roadway segments included in the daily LOS analysis were not analyzed for the peak hour due to limitations of the data collected and the Synchro software used in the peak hour analysis. Synchro calculates "Arterial Level of Service" based on travel speeds on respective approaches for signalized intersections. Segments 4, 10, 17, 26, and 31 were excluded from the peak hour segment analysis since the intersection approaches of these segments are outside of the study area (Rick Engineering Company 2019).

Intersections

The LOS at intersections is determined by intersection delays, which are measured in seconds, during the morning and afternoon peak periods. The morning peak period occurs between 7 and 9 a.m., and the afternoon peak period occurs between 4 and 6 p.m. Delay is a measure of driver and/or passenger discomfort, frustration, fuel consumption, and lost travel time.

Based on input from the City's Fire-Rescue Department and San Diego Metropolitan Transit Service (MTS), a focused intersection analysis was conducted to analyze conversion of one southbound travel lane along 1st Avenue between E Street and F Street to provide access for fire and rescue vehicles and MTS buses. For this analysis it was assumed that the existing left turn and right turn movements from Broadway towards southbound Front Street would continue to occur. It was further assumed that the through traffic volumes at the intersection of Broadway and Front Street would be redistributed as analyzed for the full closure of Front Street. The following intersections were included in this analysis:

- Broadway/Front Street
- Broadway/1st Avenue
- E Street/Front Street
- E Street/1st Avenue

- F Street/Front Street
- F Street/1st Avenue

Additionally, based on input from City of San Diego staff, a detailed analysis was conducted to analyze the queuing impacts at study area intersections as a result of existing at-grade trolley and train service in the vicinity of the Proposed Action site. In order to document potential impacts to intersections near trolley crossings, VISSIM software¹ was used to conduct a detailed PM peak hour analysis for the following intersections:

- Ash Street/Pacific Highway
- Ash Street/Kettner Boulevard
- Broadway/Pacific Highway
- Broadway/Kettner Boulevard
- Harbor Drive/Kettner Boulevard
- Harbor Drive/Market Street
- Market Street/Columbia Street

Impact Thresholds

Neither NEPA nor the CEQ Regulations specify a range of quantitative, qualitative, or performance levels for particular environmental effects, including traffic, and GSA also does not have any adopted traffic impact thresholds in their NEPA procedures. Therefore, because the Schwartz FOB is located within the City, traffic impact thresholds of the City (City of San Diego 2016) were used to assess traffic impacts associated with the Proposed Action. The City's traffic impact criteria identify defined thresholds for unacceptable traffic increases resulting from a project; these are identified in Table 3.2-2, *City of San Diego Traffic Impact Thresholds*.

Table 3.2-2
CITY OF SAN DIEGO TRAFFIC IMPACT THRESHOLDS

LOS with Project	Allowable Increase Due to Project Traffic		
	Roadway Segments		Intersections
	V/C	Speed (mph)	Delay (seconds)
E	0.02	1.0	2.0
F	0.01	0.5	1.0

City of San Diego 2016

Generally unacceptable traffic increases occur to roadways when (1) the LOS is degraded to E or F with the project or (2) the V/C increases by more than the values in Table 3.2-1 for roadway segments that would operate at LOS E or F without the project and would continue to operate at LOS E or F with the project. Unacceptable increases occur to intersections when (1) the LOS degrades to E or F with the project or (2) the delay increases by more than the values in Table 3.2-1 for intersections that would operate at LOS E or F without the project and would continue to operate at LOS E or F with the project.

¹ VISSIM is a microscopic, time step, and behavior-based traffic simulation computer program, which models urban traffic and public transit operations. It can analyze traffic (e.g., cars, trucks, pedestrians) and transit (e.g., buses, trains) operations under constraints such as lane configuration, traffic composition, traffic signals and timing plans, transit stops, layovers and dual times, etc. It is used to evaluate accurate existing conditions scenarios in addition to evaluating impacts for proposed scenarios.

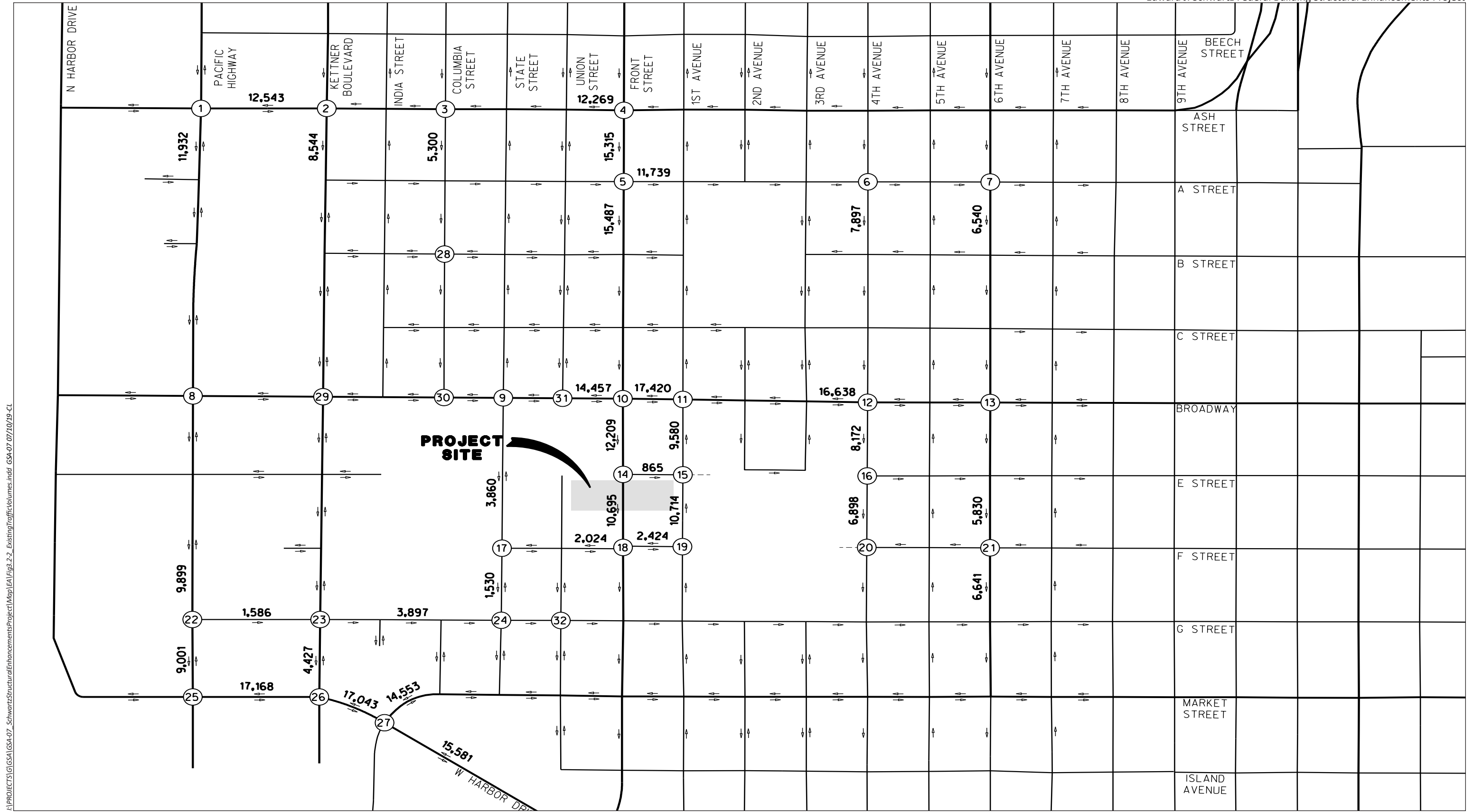
Existing Conditions of Roadway Segments

Existing traffic turning movement volumes at the intersections and ADT along roadway segments in the vicinity of the Proposed Action site were obtained from traffic counts conducted in mid-June 2017, early March 2018, and mid-March 2019.

Table 3.2-3, *Existing Daily Roadway Segment Operations*, shows the existing ADT, V/C, and LOS for roadway segments within the traffic study area of the Proposed Action. Existing traffic volumes are also illustrated in Figure 3.2-2, *Existing Traffic Volumes*. Under existing conditions, all analyzed roadway segments operate at LOS D or better on a daily basis.

Table 3.2-4, *Existing Peak Hour Roadway Segment Operations*, shows the existing LOS during the morning and afternoon peak hours for roadway segments within the traffic study area of the Proposed Action. Under existing conditions, the study area roadway segments are anticipated to operate at LOS D or better during the peak hours, except for the following:

- Ash Street between Pacific Highway and Kettner Boulevard (westbound [WB] LOS E during the AM peak hour)
- Front Street between Ash Street and A Street (southbound [SB] LOS E during the AM peak hour)
- 4th Avenue between E Street and F Street (SB LOS F during the AM peak hour)
- Broadway between Union Street and Front Street (eastbound [EB] LOS F during both the AM and PM peak hours; WB LOS E during AM peak hour)
- Broadway between Front Street and 1st Avenue (EB LOS E during the AM peak hour and LOS F during the PM peak hour; WB LOS F during both the AM and PM peak hours)
- F Street west of 1st Avenue (EB LOS F during both the AM and PM peak hours)
- Kettner Boulevard between G Street and Harbor Drive (northbound [NB] LOS E during both the AM and PM peak hours)
- Harbor Drive between Pacific Highway and Kettner Boulevard (EB and WB LOS E during the AM and LOS F during the PM peak hours)
- Harbor Drive between Kettner Boulevard and Market Street (EB LOS E during the PM peak hour; WB LOS F during both the AM and PM peak hours)
- Harbor Drive between Market Street and Front Street (EB LOS E during the PM peak hour)



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Source: Rick Engineering 2019

**Table 3.2-3
EXISTING DAILY ROADWAY SEGMENT OPERATIONS**

	Roadway Segment	Functional Classification	Maximum LOS E Capacity	ADT	V/C Ratio	LOS
1	Ash Street Pacific Highway to Kettner Boulevard	Major Arterial	25,000	12,543	0.50	B
2	Union Street to Front Street	Major Arterial	25,000	12,269	0.49	B
3	Pacific Highway Ash Street to A Street	Major Arterial	40,000	11,932	0.30	A
4	F Street to G Street	Major Arterial	40,000	9,899	0.25	A
5	G Street to Harbor Drive	Major Arterial	40,000	9,001	0.23	A
6	Columbia Street Ash Street to A Street	Local	15,000	5,300	0.35	B
7	Front Street Ash Street to A Street	Major Arterial	25,000	15,315	0.61	C
8	A Street to B Street	Major Arterial	25,000	15,487	0.62	C
9	Between Broadway and E Street	Major Arterial (3 Lanes)	25,000	12,209	0.49	B
10	Between E Street and F Street	Major Arterial (3 Lanes)	25,000	10,695	0.43	A
11	A Street Front Street to 1st Avenue	Major Arterial	25,000	11,739	0.47	B
12	4th Avenue A Street to B Street	Business Street	15,000	7,897	0.53	C
13	Between Broadway and E Street	Business Street	15,000	8,172	0.55	C
14	Between E Street and F Street	Business Street	15,000	6,898	0.46	B
15	6th Avenue A Street to B Street	Business Street	15,000	6,540	0.44	B
16	E Street to F Street	Business Street	15,000	5,830	0.39	B
17	F Street to G Street	Business Street	15,000	6,641	0.44	B
18	Broadway Between Union Street and Front Street	Collector	30,000	14,457	0.48	C
19	Between Front Street and 1st Avenue	Collector	30,000	17,420	0.58	C
20	Between 3rd Avenue and 4th Avenue	Business Street	30,000	16,638	0.55	B
21	State Street Between Broadway and F Street	Local	10,000	3,860	0.39	A
22	Between F Street and G Street	Local	10,000	1,530	0.15	A

**Table 3.2-3 (cont.)
 EXISTING DAILY ROADWAY SEGMENT OPERATIONS**

Roadway Segment		Functional Classification	Maximum LOS E Capacity	ADT	V/C Ratio	LOS
23	1st Avenue Between Broadway and E Street	Business Street	15,000	9,580	0.64	C
24	Between E Street and F Street	Business Street	15,000	10,714	0.71	D
25	E Street Between Front Street and 1st Avenue	Business Street	5,000	865	0.17	A
26	F Street Between Union Street and Front Street	Collector	5,000	2,024	0.41	B
27	Between Front Street and 1st Avenue	Collector	10,000	2,424	0.24	A
28	G Street Pacific Highway to Kettner Boulevard	Collector	10,000	1,586	0.16	A
29	India Street to Columbia Street	Collector	10,000	3,897	0.39	A
30	Kettner Boulevard G Street to Harbor Drive	Collector	15,000	4,427	0.30	A
31	Market Street Harbor Drive to Columbia Street	Major Arterial	30,000	14,553	0.49	B
32	Harbor Drive Pacific Highway to Kettner Boulevard	Major Arterial	40,000	17,168	0.43	B
33	Kettner Boulevard to Market Street	Major Arterial	40,000	17,043	0.43	B
34	Market Street to Front Street	Major Arterial	40,000	15,581	0.39	B
35	Kettner Boulevard Ash Street to A Street	Major Arterial (two lanes)	20,000	8,544	0.43	B

Source: Rick Engineering Company 2019

ADT = Average Daily Traffic, V/C Ratio = Volume to Capacity Ratio, LOS = Level of Service

**Table 3.2-4
EXISTING PEAK HOUR ROADWAY SEGMENT OPERATIONS**

Street Segment	Direction	AM Peak Hour			PM Peak Hour		
		FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS
1. Ash Street (Pacific Highway to Kettner Boulevard)	EB	25	16.2	C	25	14.9	C
	WB	25	8.3	E	25	9.3	D
2. Ash Street (West of Front Street)	EB	25	17.4	C	25	17.8	C
3. Pacific Highway (South of Ash Street)	NB	35	20.2	C	35	19.3	C
	SB	35	17.9	D	35	17.8	D
5. Pacific Highway (North of Harbor Drive)	NB	40	19.4	C	40	19.4	C
	SB	40	22.1	C	40	21.9	C
6. Columbia Street (South of Ash Street)	SB	25	13.2	C	25	13.1	C
7. Front Street (Ash Street to A Street)	SB	25	8.7	E	25	9.5	D
8. Front Street (South of A Street)	SB	25	19.9	B	25	15.6	C
9. Front Street (Broadway to E Street)	SB	25	10.2	D	25	10.0	D
11. A Street (Front Street to 1st Avenue)	EB	25	15.1	C	25	16.1	C
12. 4th Avenue (South of A Street)	SB	25	18.5	C	25	12.8	D
13. 4th Avenue (Broadway to E Street)	SB	25	11.1	D	25	10.9	D
14. 4th Avenue (E Street to F Street)	SB	25	6.9	F	25	9.3	D
15. 6th Avenue (South of A Street)	SB	25	18.9	C	25	16.9	C
16. 6th Avenue (North of F Street)	SB	25	14.2	C	25	15.2	C
18. Broadway (Union Street to Front Street)	EB	25	2.0	F	25	0.4	F
	WB	25	8.9	E	25	9.5	D
19. Broadway (Front Street to 1st Avenue)	EB	25	7.2	E	25	6.4	F
	WB	25	6.3	F	25	5.8	F
20. Broadway (West of 4th Avenue)	EB	25	17.7	C	25	16.4	C
	WB	25	9.3	D	25	10.2	D
21. State Street (South of Broadway)	NB	25	11.1	D	25	13.2	C
22. State Street (F Street to G Street)	SB	25	15.7	C	25	14.6	C
23. 1st Avenue (Broadway to E Street)	NB	25	9.9	D	25	9.9	D
24. 1st Avenue (E Street to F Street)	NB	25	12.3	D	25	13.9	C
25. E Street (Front Street to 1st Avenue)	EB	25	10.4	D	25	12.9	D
27. F Street (West of 1st Avenue)	EB	25	5.1	F	25	5.5	F

**Table 3.2-4 (cont.)
 EXISTING PEAK HOUR ROADWAY SEGMENT OPERATIONS**

Street Segment	Direction	AM Peak Hour			PM Peak Hour		
		FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS
28. G Street (Pacific Highway to Kettner Boulevard)	EB	25	12.8	D	25	12.5	D
29. G Street (West of State Street)	EB	25	15.7	C	25	15.6	C
30. Kettner Boulevard (G Street to Harbor Drive)	NB	25	8.6	E	25	8.5	E
	SB	25	12.3	D	25	10.5	D
32. Harbor Drive (Pacific Highway to Kettner Boulevard)	EB	25	7.9	E	25	6.8	F
	WB	25	7.1	E	25	6.8	F
33. Harbor Drive (Kettner Boulevard to Market Street)	EB	25	9.6	D	25	9.0	E
	WB	25	4.9	F	25	4.6	F
34. Harbor Drive (Market Street to Front Street)	EB	40	9.6	D	40	9.0	E
	WB	40	23.7	B	40	21.7	B
35. Kettner Boulevard (South of Ash Street)	SB	25	18.3	C	25	18.3	C

Source: Rick Engineering Company 2019

FFS = Free-flow Speed, LOS = Level of Service, mph = Miles Per Hour

Existing Conditions of Intersections

Table 3.2-5, *Existing Intersection Conditions*, shows the existing conditions for intersections within the traffic study area. Existing traffic volumes are also illustrated in Figure 3.2-3, *Existing Intersection Volumes*.

**Table 3.2-5
EXISTING INTERSECTION CONDITIONS**

Number ¹	Intersection	Peak Hour	Delay	LOS
1	Ash Street/Pacific Highway (S)	AM	22.3	C
		PM	22.6	C
2	Ash Street/Kettner Boulevard (S)	AM	11.8	B
		PM	12.0	B
3	Ash Street/Columbia Street (S)	AM	18.2	B
		PM	19.2	B
4	Ash Street/Front Street (S)	AM	15.5	B
		PM	16.1	B
5	A Street/Front Street (S)	AM	23.1	C
		PM	20.2	C
6	A Street/4th Avenue (S)	AM	17.4	B
		PM	22.9	C
7	A Street/6th Avenue (S)	AM	18.1	B
		PM	24.0	C
8	Broadway/Pacific Highway (S)	AM	25.4	C
		PM	27.8	C
9	Broadway/State Street (S)	AM	8.1	A
		PM	8.3	A
10	Broadway/Front Street (S)	AM	38.7	D
		PM	207.2	F
11	Broadway/1st Avenue (S)	AM	31.6	C
		PM	26.6	C
12	Broadway/4th Avenue (S)	AM	7.2	A
		PM	8.3	A
13	Broadway/6th Avenue (S)	AM	13.4	B
		PM	12.1	B
14	E Street/Front Street (S)	AM	6.5	A
		PM	7.1	A
15	E Street/1st Avenue (S)	AM	17.6	B
		PM	17.7	B
16	E Street/4th Avenue (S)	AM	4.5	A
		PM	5.5	A
17	F Street/State Street (U)	AM	--	--
		SB L	7.9	A
		WB LR	10.9	B
		PM	--	--
		SB L	7.5	A
		WB LR	10.2	B

**Table 3.2-5 (cont.)
EXISTING INTERSECTION CONDITIONS**

Number ¹	Intersection	Peak Hour	Delay	LOS
18	F Street/Front Street (U)	AM	--	--
		EB R	45.4	E
		WB L	63.2	F
		PM	--	--
		EB R	33.6	D
		WB L	23.7	C
19	F Street/1st Avenue (S)	AM	0.6	A
		PM	0.6	A
20	F Street/4th Avenue (S)	AM	14.8	B
		PM	17.1	B
21	F Street/6th Avenue (S)	AM	12.3	B
		PM	13.9	B
22	G Street/Pacific Highway (U)	AM	--	--
		SB L	8.6	A
		PM	--	--
		SB L	9.6	A
23	G Street/Kettner Boulevard (S)	AM	13.2	B
		PM	11.5	B
24	G Street/State Street (S)	AM	11.6	B
		PM	10.9	B
25	Harbor Drive/Pacific Highway (S)	AM	33.3	C
		PM	31.5	C
26	Harbor Drive/Kettner Boulevard (S)	AM	28.3	C
		PM	36.1	D
27	Harbor Drive/Market Street (S)	AM	22.4	C
		PM	24.6	C
28	B Street/Columbia Street (U)	AM	8.9	A
		PM	8.4	A
29	Broadway/Kettner Boulevard (S)	AM	22.1	C
		PM	19.9	B
30	Broadway/Columbia Street (S)	AM	6.2	A
		PM	16.7	B
31	Broadway/Union Street (S)	AM	2.9	A
		PM	6.6	A
32	G Street/Union Street (U)	AM	11.5	B
		PM	11.6	B

Source: Rick Engineering Company 2019

¹ Number corresponds to intersection location in Figure 3.2-2.

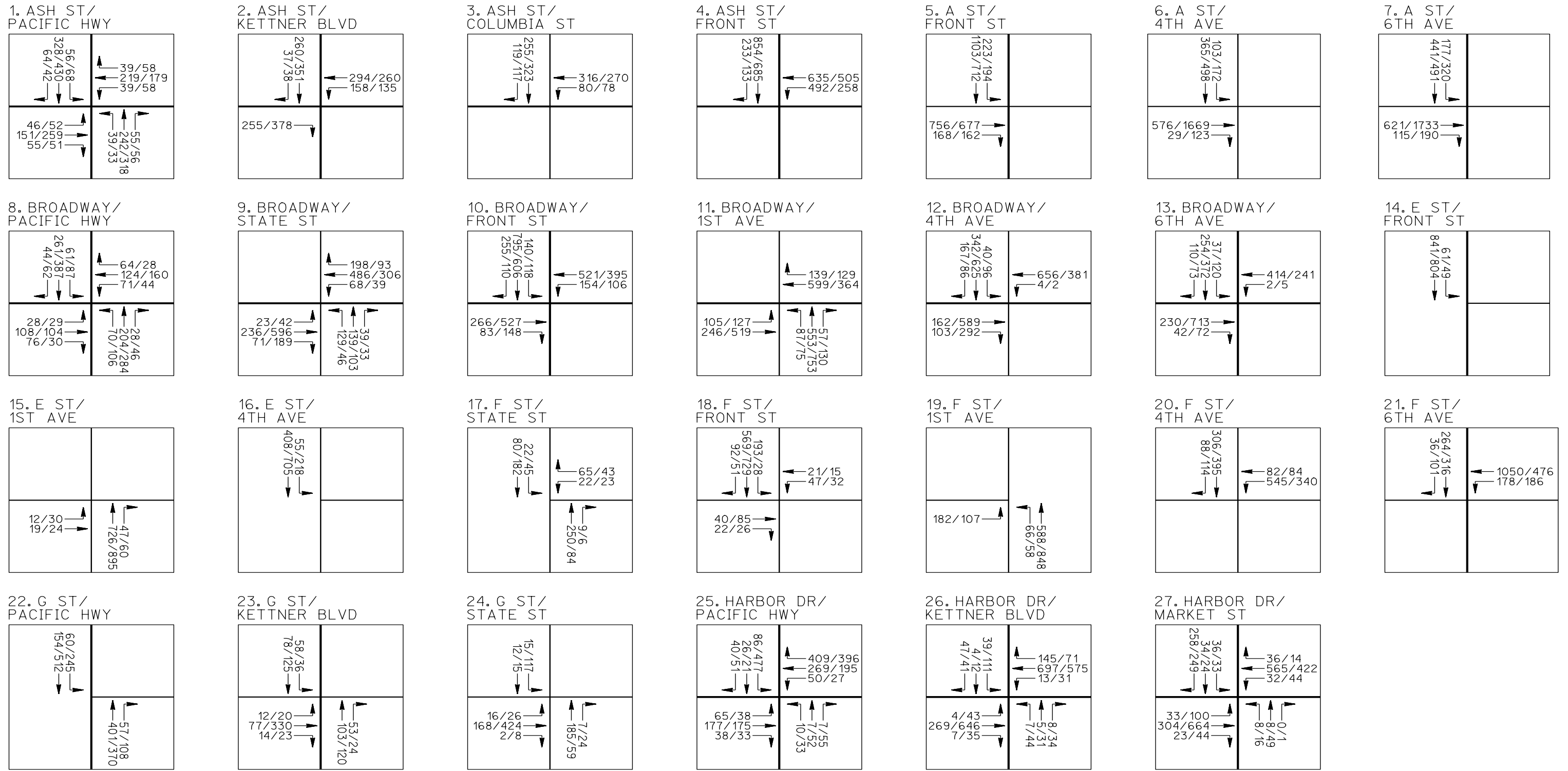
Delay is measured in seconds.

LOS = Level of Service, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound,

T = through movement, L = left-turn movement, R = right-turn movement, (S) = Signalized intersection,

(U) = Unsignalized intersection

As shown in the table, all signalized intersections in the traffic study area operate at LOS D or better, except the intersection of Broadway and Front Street (intersection 10), which operates at LOS F during PM peak hour due to the conflicting westbound left turn and eastbound through movements.



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Source: Rick Engineering 2019

Table 3.2-5 also indicates that all of the critical movements of the unsignalized intersections currently operate at LOS D or better with the exception of the intersection of F Street and Front Street (intersection 18):

- Eastbound (EB) Right Turn (R): LOS E during the AM peak hour
- Westbound (WB) Left Turn (L): LOS F during the AM peak hour

The existing left turn pockets along Broadway are approximately 50 feet in length. Based on the existing number of vehicles making left turns from Broadway, it is expected that the following intersections experience a queue of vehicles during the peak hours:

- Broadway/Front Street
- Broadway/1st Avenue

Existing Pedestrian Facilities

Pedestrian facilities in the traffic study area consist of curb ramps, sidewalks, marked and un-marked crosswalks, signage, median islands, landscaping, and lighting.

On Front Street, which is a three-lane, one-way, southbound street, the Proposed Action footprint includes wide sidewalks on both sides the street and separated sidewalks on either side of the existing the Schwartz FOB underpass. Where the public open space south of the Schwartz FOB meets F Street, a crosswalk aids pedestrian movement across Front Street. On the north side of the Schwartz FOB, traffic signals and two crosswalks at the Front Street/E Street intersection facilitate pedestrian mobility. In addition, E Street is closed to vehicular traffic from Front Street to State Street and westward to Columbia Street; this pedestrian area is known as the E Street Mall.

Existing and Planned Bicycle Facilities

A variety of existing bicycle lanes and routes offer alternatives to driving in the traffic study area. The closest designated bicycle facilities to the Proposed Action Footprint include: multi-use paths at Pacific Highway; the waterfront along North Harbor Drive; Columbia Street between Broadway and G Street; and the Martin Luther King Jr. Promenade beside the railroad right-of way from Broadway south to Harbor Drive. Shared right-of-way bike routes are designated on Harbor Drive, Pacific Highway, A Street, B Street, and Ash Street. No designated bicycle facilities are present on Front Street in the Proposed Action footprint.

High priority planned bicycle facilities in the vicinity of the Proposed Action site include Class III shared right-of-way bike routes along State Street and G Street (City of San Diego Bicycle Master Plan December 2013).

Existing and Planned Transit Services

Multiple bus and trolley lines run through the Downtown San Diego area, and COASTER and Amtrak trains run out of the Santa Fe Depot at Broadway and Kettner Boulevard, a quarter-mile west of the Proposed Action site.

MTS is the public transit service provider in the County of San Diego. In the fourth quarter of 2017, MTS provided public transportation services to approximately 271,500 riders daily (Rick Engineering Company 2019). There are currently four MTS bus routes that travel along Front Street in the vicinity of the Schwartz FOB: routes 11, 30, 50, and 150. The closest bus stops to the Proposed Action site are: adjacent to the southern boundary of the Proposed Action footprint at Front Street and F Street (Route 11, San Diego State University to Downtown); adjacent to the southeastern boundary of the Proposed Action footprint at 1st Avenue and E Street (Route 11); less than one tenth of a mile southeast of the Proposed Action footprint at the northeast corner of 1st Avenue and G Street (Route 11), and multiple bus stops along Broadway (less than one tenth of a mile north of the site), including Rapid services to North County, San Diego State University, and the south bay area. Route 11 and Route 150 (Downtown – UTC / VA Hospital Express) buses currently travel south on Front Street through the existing Schwartz FOB underpass. MTS bus route 11 travels south on Front Street, makes a left turn (east) onto Market Street and a left turn (north) onto 1st Avenue. MTS route 150 travels along Front Street makes a left turn (east) onto F Street and another left (north) onto 1st Avenue. This route has a bus stop at the southeast corner of the intersection of Broadway and 1st Avenue.

In addition to these MTS bus routes that provide services in the vicinity of the Proposed Action site, there are four trolley lines that provide transportation service in the area. The Orange Line provides service between Downtown San Diego and the City of El Cajon to the east. In the vicinity of the Proposed Action site, the Orange Line travels in an east-west direction along C Street. The Blue Line provides a connection between the U.S.-Mexico border (San Ysidro) to the south and Downtown San Diego. This line also travels in an east-west direction along C Street in the vicinity of the Proposed Action site. The Green Line provides service from Downtown San Diego to Santee, traveling in a north-south direction west of Kettner Boulevard and along Harbor Drive. The Silver Line is a vintage trolley line that departs from the 12th and Imperial station every 30 minutes on Fridays, Saturdays, and Sundays. The Silver Line is a loop that extends along C Street, 13th Street, Harbor Drive, and west of Kettner Boulevard. The closest trolley stops are the Seaport Village and Convention Center stations (each approximately 0.25 mile southwest and south of the site, respectively) on the Green and Silver Lines; the Courthouse station (approximately 0.15 mile northwest of the site) on the Orange Line; and the Civic Center station (approximately 0.20 mile northeast of the site) on the Orange, Blue, and Silver Lines.

Existing Attractions and Events in Downtown San Diego

The Tourism Economics San Diego Travel Forecast dated December 2018 prepared for the San Diego Tourism Authority shows that approximately 35.8 million people were expected to visit the City of San Diego in 2018. It is anticipated that visitation will increase 2.0 percent in 2019. There are a variety of attractions in Downtown San Diego, including:

- USS Midway
- Unconditional Surrender
- Embarcadero
- Maritime Museum of San Diego
- Seaport Village/The Headquarters
- San Diego Bay Tours
- Coronado Ferry
- Waterfront Park
- Little Italy
- New Children’s Museum
- Museum of Contemporary Art
- PETCO Park (San Diego Padres stadium)
- GoCar Tours
- Gaslamp Quarter
- SEAL Tours
- Old Town Trolley
- MTS Trolley
- San Diego Symphony
- Tuna Harbor Dockside Market
- Food Tours
- Social Cycle

The City of San Diego website provides an up-to-date listing of special events that occur during the year. A number of non-daily events occur in the vicinity of the Proposed Action site, including:

- San Diego Comic-Con International
- Food and/or wine events
- San Diego International Auto Show
- San Diego Padres baseball games
- Various musical/entertainment events

It is anticipated that the majority of visitors to these events would access Downtown San Diego via Front Street, since it is the primary access point from southbound I-5. Front Street is not used directly for parades, street fairs, runs, or other special events; however, Front Street is used to shuttle people to many large events that happen south of the Proposed Action site, including events located in the San Diego Convention Center.

3.2.3 Environmental Consequences

The following traffic/transportation-related consequences of the Action Alternative and No Action Alternative are presented in this section: construction impacts to vehicular traffic; local street intersection impacts; pedestrian and bicycle impacts; and transit impacts.

Construction Impacts to Vehicular Traffic

Action Alternative

Under the Action Alternative, Front Street would be closed completely between Broadway and F Street for approximately 14 months of the construction period, and partially closed (one lane) for approximately 12 months. During partial closure, existing traffic would not need to be rerouted. During full closure, traffic from Front Street could be diverted to the following roadways:

- Ash Street (eastbound)
- A Street (eastbound)
- Broadway (eastbound and westbound)
- Harbor Drive (eastbound)
- Pacific Highway (southbound)
- State Street (southbound)
- G Street (eastbound)
- Market Street (eastbound and westbound)
- 4th Avenue (southbound)
- 6th Avenue (southbound)

During construction, all or a portion of the traffic that would normally use Front Street between Broadway and F Street would be diverted at Ash Street (westbound) towards Pacific Highway (southbound) to Broadway, G Street and Market Street; and at A Street (eastbound) towards 4th Avenue and 6th Avenue (southbound) to Market Street (westbound). This would be accomplished by placing portable changeable message signs or other temporary advance warning signage along study area roadways to inform pedestrians and drivers of required detours. K-rail would be placed

approximately mid-block between Broadway and E Street to allow access to the existing underground parking garage for the building located at 101 Broadway.

As discussed above, in order to provide access for fire and rescue vehicles and MTS buses during full closure of Front Street between E and F Street, an option to provide one southbound travel lane along 1st Avenue between E Street and F Street may be included in the Traffic Control Plan as requested by the City Fire-Rescue Department and MTS. This would require temporary signal timing improvements at the intersections of 1st Avenue/E Street and 1st Avenue/F Street, as well as placement of k-rail and appropriate end protection devices in conjunction with advance warning signage. Based on existing SANDAG data on traffic patterns related to housing and/or employment, the assumed redistribution of traffic volumes analyzed during full closure indicates that approximately 40 percent and 60 percent travel to and from west and east of Front Street in the vicinity of the Proposed Action site, respectively.

Roadway Segments Analysis

Table 3.2-6, *Construction Period Daily Roadway Segment Operations Summary*, presents the results of the TIA analysis of roadway segment operations during full and partial roadway closure of Front Street while the proposed Action Alternative is being constructed. The analysis shows that all roadways within the Proposed Action study area would operate at LOS D or better during the construction period, including both the full and partial closure of Front Street between Broadway and F Street. Therefore, no significant impacts to roadway segments would occur.

Table 3.2-7, *Construction Period Peak Hour Roadway Segment Operations Summary*, presents the results of the peak hour roadway segment analysis during full and partial closure of Front Street. As shown in the table, during full closure, all segments are anticipated to operate at LOS D or better during the peak hour with the exception of the following:

- Front Street between Ash Street and A Street (SB LOS E during the AM peak hour)
- 4th Avenue between E Street and F Street (SB LOS F during the AM peak hour and LOS E during the PM peak hour)
- Broadway between Union Street and Front Street (EB LOS F during both the AM and PM peak hours, WB LOS E during the AM and PM peak hours)
- Broadway between Front Street and 1st Avenue (EB LOS E during the AM peak hour and LOS F during the PM peak hour; WB LOS F during the AM and PM peak hours)
- F Street west of 1st Avenue (EB LOS E during the AM peak hour and LOS F during the PM peak hour)
- Kettner Boulevard between G Street and Harbor Drive (NB LOS E during the AM and PM peak hours)
- Harbor Drive between Pacific Highway and Kettner Boulevard (EB and WB LOS E during the AM peak hour and LOS F during the PM peak hour)
- Harbor Drive between Kettner Boulevard and Market Street (EB LOS E during the AM and PM peak hours; WB LOS F during the AM and PM peak hours)

- Harbor Drive between Market Street and Front Street (EB LOS F during the PM peak hour)

During partial closure of Front Street, three additional roadway segments would operate at unacceptable LOS in addition to those identified above for the full closure condition:

- Ash Street between Pacific Highway and Kettner Boulevard (WE LOS E during the AM peak hour)
- Broadway west of 4th Avenue (WB LOS E during the AM peak hour)
- E Street between Front Street and 1st Avenue (EB LOS E during the AM peak hour)

Compared to the full closure of Front Street, SB 4th Avenue between E Street and F Street would operate at an acceptable LOS during the PM peak hour.

A comparison of the existing condition to the full closure of Front Street between E Street and F Street shows that operation of the following three roadway segments would reduce from LOS D to LOS E or F during the AM and/or PM peak hours: 4th Avenue between E Street and F Street, Broadway between Union Street and Front Street, and Harbor Drive between Kettner Boulevard and Market Street. During partial closure, the segments of Broadway west of 4th Avenue and E Street between Front Street and 1st Avenue would experience a reduction from LOS D to LOS E during the AM peak hour. Although these roadway segments would experience unacceptable LOS during the full and partial closure conditions, the decrease in roadway speeds attributed to construction of the Action Alternative would be below the City's traffic impact thresholds (1.0 mph decrease in speed for LOS E and 0.5 mph decrease in speed for LOS F; refer to Table 3.2-2) for all of the segments except the EB segment of E Street from Front Street to 1st Avenue, which would experience a 2.5 mph decrease in speeds from existing conditions during partial closure of Front Street. The effects on roadway operations for this segment of E Street would only be experienced during the partial closure of one lane of traffic on Front Street, which would occur on an as-needed basis for up to 12 months during construction of the Action Alternative.

**Table 3.2-6
CONSTRUCTION PERIOD DAILY ROADWAY SEGMENT OPERATIONS SUMMARY**

Roadway Segment	Functional Classification	Maximum LOS E Capacity	Existing			Front Street Full Closure			Front Street Partial Closure		
			ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS
1 Ash Street Pacific Highway to Kettner Boulevard	Major Arterial	25,000	12,543	0.50	B	14,124	0.56	C	12,543	0.5	B
2 Union Street to Front Street	Major Arterial	25,000	12,269	0.49	B	14,640	0.59	C	12,269	0.49	B
3 Pacific Highway Ash Street to A Street	Major Arterial	40,000	11,932	0.30	A	13,513	0.34	A	11,932	0.3	A
4 F Street to G Street	Major Arterial	40,000	9,899	0.25	A	11,356	0.28	A	9,899	0.25	A
5 G Street to Harbor Drive	Major Arterial	40,000	9,001	0.23	A	9,644	0.24	A	9,001	0.23	A
6 Columbia Street Ash Street to A Street	Local	15,000	5,300	0.35	B	5,696	0.38	B	5,300	0.35	B
7 Front Street Ash Street to A Street	Major Arterial	25,000	15,315	0.61	C	12,944	0.52	B	15,315	0.61	C
8 A Street to B Street	Major Arterial	25,000	15,487	0.62	C	9,164	0.37	A	15,487	0.62	C
9 Between Broadway and E Street	Major Arterial (3 Lanes) ¹	25,000 ²	12,209	0.49	B	1,594	0.08	A	12,209	0.61	C
10 Between E Street and F Street	Major Arterial (3 Lanes)	25,000	10,695	0.43	A	-	-	-	10,695	0.54	C
11 A Street Front Street to 1st Avenue	Major Arterial	25,000	11,739	0.47	B	15,691	0.63	C	11,739	0.47	B
12 4th Avenue A Street to B Street	Business Street	15,000	7,897	0.53	C	10,268	0.68	D	7,897	0.53	C
13 Between Broadway and E Street	Business Street	15,000	8,172	0.55	C	11,340	0.76	D	8,172	0.55	C
14 Between E Street and F Street	Business Street	15,000	6,898	0.46	B	10,066	0.67	C	6,898	0.46	B

Table 3.2-6 (cont.)
CONSTRUCTION PERIOD DAILY ROADWAY SEGMENT OPERATIONS SUMMARY

Roadway Segment	Functional Classification	Maximum LOS E Capacity	Existing			Front Street Full Closure			Front Street Partial Closure			
			ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	
15	6th Avenue A Street to B Street	Business Street	15,000	6,540	0.44	B	8,121	0.54	C	6,540	0.44	B
16	E Street to F Street	Business Street	15,000	5,830	0.39	B	8,207	0.55	C	5,830	0.39	B
17	F Street to G Street	Business Street	15,000	6,641	0.44	B	9,018	0.60	C	6,641	0.44	B
18	Broadway Between Union Street and Front Street	Collector	30,000	14,457	0.48	C	15,189	0.58	C	14,457	0.48	B
19	Between Front Street and 1st Avenue	Collector	30,000	17,420	0.58	C	19,013	0.63	C	17,420	0.58	C
20	Between 3rd Avenue and 4th Avenue	Business Street	30,000	16,638	0.55	B	18,231	0.61	C	16,638	0.55	B
21	State Street Between Broadway and F Street	Local	10,000	3,860	0.39	A	6,867	0.69	C	3,860	0.39	A
22	Between F Street and G Street	Local	10,000	1,530	0.15	A	4,002	0.40	A	1,530	0.15	A
23	1st Avenue Between Broadway and E Street	Business Street	15,000	9,580	0.64	C	9,330	0.62	C	9,580	0.64	C
24	Between E Street and F Street	Business Street	15,000	10,714	0.71	D	9,697	0.65	C	10,714	0.72	D
25	E Street Between Front Street and 1st Avenue	Business Street	5,000	865	0.17	A	865	0.17	A	865	0.17	A
26	F Street Between Union Street and Front Street	Collector	5,000	2,024	0.41	B	1,736	0.35	A	2,024	0.41	B
27	Between Front Street and 1st Avenue	Collector	10,000	2,424	0.24	A	1,262	0.13	A	2,424	0.24	A

Table 3.2-6 (cont.)
CONSTRUCTION PERIOD DAILY ROADWAY SEGMENT OPERATIONS SUMMARY

Roadway Segment	Functional Classification	Maximum LOS E Capacity	Existing			Front Street Full Closure			Front Street Partial Closure		
			ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS	ADT	V/C Ratio	LOS
28 G Street Pacific Highway to Kettner Boulevard	Collector	10,000	1,586	0.16	A	2,401	0.24	A	1,586	0.16	A
29 India Street to Columbia Street	Collector	10,000	3,897	0.39	A	5,398	0.54	B	3,897	0.39	A
30 Kettner Boulevard G Street to Harbor Drive	Collector	15,000	4,427	0.30	A	4,427	0.30	A	4,427	0.3	A
31 Market Street Harbor Drive to Columbia Street	Major Arterial	30,000	14,553	0.49	B	15,196	0.51	B	14,553	0.49	B
32 Harbor Drive Pacific Highway to Kettner Boulevard	Major Arterial	40,000	17,168	0.43	B	17,811	0.45	B	17,168	0.43	B
33 Kettner Boulevard to Market Street	Major Arterial	40,000	17,043	0.43	B	17,686	0.44	B	17,043	0.43	B
34 Market Street to Front Street	Major Arterial	40,000	15,581	0.39	B	15,581	0.39	B	15,581	0.39	B
35 Kettner Boulevard Ash Street to A Street	Major Arterial (2 lanes)	20,000	8,544	0.43	B	8,939	0.45	B	8,544	0.43	B

Source: Rick Engineering Company 2019

Notes:

¹ Front Street between Broadway and E Street would be reduced to zero lanes during full street closure and two lanes during partial street closure.

² Front Street between Broadway and E Street would be reduced to a maximum LOS E capacity of 20,000 during full and partial street closure.

ADT = Average Daily Traffic, V/C Ratio = Volume to Capacity Ratio, LOS = Level of Service

**Table 3.2-7
CONSTRUCTION PERIOD PEAK HOUR ROADWAY SEGMENT OPERATIONS SUMMARY**

Street Segment	Direction	Existing						Front Street Full Closure						Front Street Partial Closure					
		AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
		FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS	FFS (mph)	Roadway Speed (mph)	LOS
1. Ash Street (Pacific Highway to Kettner Boulevard)	EB	25	16.2	C	25	14.9	C	25	16.2	C	25	14.9	C	25	16.2	C	25	14.9	C
	WB	25	8.3	E	25	9.3	D	25	9.6	D	25	9.5	D	25	8.3	E	25	9.3	D
2. Ash Street (West of Front Street)	EB	25	17.4	C	25	17.8	C	25	17.4	C	25	16.8	C	25	17.4	C	25	17.8	C
3. Pacific Highway (South of Ash Street)	NB	35	20.2	C	35	19.3	C	35	19.1	C	35	18.9	C	35	20.2	C	35	19.3	C
	SB	35	17.9	D	35	17.8	D	35	17.9	D	35	17.6	D	35	17.9	D	35	17.8	D
5. Pacific Highway (North of Harbor Drive)	NB	40	19.4	C	40	19.4	C	40	19.0	C	40	18.7	C	40	19.4	C	40	19.4	C
	SB	40	22.1	C	40	21.9	C	40	22.1	C	40	21.9	C	40	22.1	C	40	21.9	C
6. Columbia Street (South of Ash Street)	SB	25	13.2	C	25	13.1	C	25	13.0	C	25	12.9	C	25	13.1	C	25	13.1	C
7. Front Street (Ash Street to A Street)	SB	25	8.7	E	25	9.5	D	25	8.8	E	25	9.0	D	25	8.7	E	25	9.1	D
8. Front Street (South of A Street)	SB	25	19.9	B	25	15.6	C	25	19.6	B	25	17.5	C	25	19.4	B	25	15.4	C
9. Front Street (Broadway to E Street)	SB	25	10.2	D	25	10.0	D	25	13.6	C	25	13.6	D	25	9.3	D	25	9.1	D
11. A Street (Front Street to 1st Avenue)	EB	25	15.1	C	25	16.1	C	25	16.3	C	25	16.0	C	25	15.1	C	25	16.1	C
12. 4th Avenue (South of A Street)	SB	25	18.5	C	25	12.8	D	25	16.1	C	25	13.1	D	25	18.5	C	25	12.8	D
13. 4th Avenue (Broadway to E Street)	SB	25	11.1	D	25	10.9	D	25	11.0	D	25	10.7	D	25	11.1	D	25	10.9	D
14. 4th Avenue (E Street to F Street)	SB	25	6.9	F	25	9.3	D	25	6.6	F	25	8.8	E	25	6.9	F	25	9.3	D
15. 6th Avenue (South of A Street)	SB	25	18.9	C	25	16.9	C	25	14.0	C	25	16.6	C	25	13.4	C	25	16.9	C
16. 6th Avenue (North of F Street)	SB	25	14.2	C	25	15.2	C	25	9.9	C	25	14.2	C	25	10.2	D	25	15.2	C
18. Broadway (Union Street to Front Street)	EB	25	2.0	F	25	0.4	F	25	2.4	F	25	0.5	F	25	2.0	F	25	0.4	F
	WB	25	8.9	E	25	9.5	D	25	8.2	E	25	8.9	E	25	9.0	E	25	9.6	D
19. Broadway (Front Street to 1st Avenue)	EB	25	7.2	E	25	6.4	F	25	7.0	E	25	6.1	F	25	7.2	E	25	6.3	F
	WB	25	6.3	F	25	5.8	F	25	5.4	F	25	5.3	F	25	6.3	F	25	5.8	F
20. Broadway (West of 4th Avenue)	EB	25	17.7	C	25	16.4	C	25	18.3	C	25	16.6	C	25	17.7	C	25	16.4	C
	WB	25	9.3	D	25	10.2	D	25	9.3	D	25	10.6	D	25	8.8	E	25	10.2	D
21. State Street (South of Broadway)	NB	25	11.1	D	25	13.2	C	25	11.1	D	25	13.2	C	25	11.1	D	25	13.2	C
22. State Street (F Street to G Street)	SB	25	15.7	C	25	14.6	C	25	13.3	C	25	12.4	D	25	15.7	C	25	14.6	C
23. 1st Avenue (Broadway to E Street)	NB	25	9.9	D	25	9.9	D	25	9.9	D	25	9.9	D	25	9.9	D	25	9.9	D
24. 1st Avenue (E Street to F Street)	NB	25	12.3	D	25	13.9	C	25	15.9	C	25	13.9	C	25	12.3	D	25	13.9	C
25. E Street (Front Street to 1st Avenue)	EB	25	10.4	D	25	12.9	D	25	11.2	D	25	12.9	D	25	7.9	E	25	10.9	D
27. F Street (West of 1st Avenue)	EB	25	5.1	F	25	5.5	F	25	7.1	E	25	5.5	F	25	5.4	F	25	5.4	F
28. G Street (Pacific Highway to Kettner Boulevard)	EB	25	12.8	D	25	12.5	D	25	12.8	D	25	12.5	D	25	12.8	D	25	12.5	D
29. G Street (West of State Street)	EB	25	15.7	C	25	15.6	C	25	15.1	C	25	15.6	C	25	15.7	C	25	15.6	C
30. Kettner Boulevard (G Street to Harbor Drive)	NB	25	8.6	E	25	8.5	E	25	8.6	E	25	8.5	E	25	8.6	E	25	17.9	C
	SB	25	12.3	D	25	10.5	D	25	12.3	D	25	10.5	D	25	12.3	D	25	10.5	D
32. Harbor Drive (Pacific Highway to Kettner Boulevard)	EB	25	7.9	E	25	6.8	F	25	7.8	E	25	6.8	F	25	7.9	E	25	6.8	F
	WB	25	7.1	E	25	6.8	F	25	7.1	E	25	6.8	F	25	7.1	E	25	6.8	F
33. Harbor Drive (Kettner Boulevard to Market Street)	EB	25	9.6	D	25	9.0	E	25	9.7	E	25	9.0	E	25	9.6	D	25	9.0	E
	WB	25	4.9	F	25	4.6	F	25	4.9	F	25	4.6	F	25	4.9	F	25	4.6	F
34. Harbor Drive (Market Street to Front Street)	EB	40	9.6	D	40	9.0	E	40	9.7	D	40	9.0	F	40	9.6	D	40	9.0	E
	WB	40	23.7	B	40	21.7	B	40	22.8	B	40	21.3	B	40	23.7	B	40	21.7	B
35. Kettner Boulevard (South of Ash Street)	SB	25	18.3	C	25	18.3	C	25	18.2	C	25	18.2	C	25	18.3	C	25	18.3	C

Source: Rick Engineering Company 2019

FFS = Free-flow Speed, LOS = Level of Service, mph = Miles Per Hour; **bold** text indicates unacceptable LOS E or F; roadway segments that would be reduced to unacceptable LOS E or F compared to the existing condition are shaded.

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Intersections Analysis

Table 3.2-8, *Construction Period Intersection Operations Summary*, presents the results of the TIA analysis of intersection operations during construction of the Action Alternative with full and partial roadway closure of Front Street, as well as the conversion of one lane of traffic along 1st Avenue between E Street and F Street to southbound travel. Table 3.2-8 shows that during full closure of Front Street, all approaches to the traffic study area signalized intersections would operate at LOS D or better during the AM and PM peak hours with the exception of the intersection of Broadway and Front Street (LOS F during the PM peak hour). Additionally, all of the critical movements of the unsignalized intersections would continue to operate at LOS D or better during the AM and PM peak hours. Most Front Street intersection delays as well as delays at some other intersections would improve with a full closure of Front Street between Broadway and F Street. Increased delays at other intersections would generally be less than two seconds; the most substantial delays would be at the signalized intersection at Ash Street/Pacific Highway, where the delay would increase by 9.2 seconds in the PM peak hour; however, this and all other study area intersections would continue to operate at LOS D or better. Thus, during the 14-month period when Front Street between Broadway and F Street would be fully closed, similar LOS would be experienced at the open intersections and roadway segments compared to existing conditions, and no significant impacts to intersections would occur.

For the optional conversion of one lane of traffic along 1st Avenue between E Street and F Street to southbound travel that may be implemented during full closure of Front Street, all approaches to the traffic study area signalized intersections and critical movements of the unsignalized intersections would operate at LOS D or better during the AM and PM peak hours with the exception of the intersection of Broadway and Front Street (LOS F during the PM peak hour). This intersection would experience a temporary increase in delay by approximately one minute compared to existing conditions, which would be an unacceptable traffic increase per the City's traffic impact thresholds (refer to Table 3.2-2).

During partial closure of Front Street, all approaches of the study area signalized intersections would operate at LOS D or better with the exception of the intersection of Broadway and Front Street, which would operate at LOS F during PM peak hour. This is due to the conflicting westbound left turn and eastbound through movements. A 0.7 second increase in delay over existing conditions would be experienced during the AM peak hour at this intersection; during the PM peak hour, the increase in delay would be 0.2 seconds compared to existing conditions. This would not exceed the City's traffic impact thresholds or represent a substantial change from the existing condition at this intersection.

All the critical movements of the unsignalized intersections would operate at LOS D or better with the exception of the intersection of F Street and Front Street (EB right-turn would operate at LOS E during the AM peak hour; and westbound right-turn would operate at LOS F during the AM peak hour). This would not represent a change from the existing condition at this intersection.

Most intersections would experience no increase in peak hour delays with a partial closure of Front Street between Broadway and F Street. The only other intersection that would experience an increase in delay over existing conditions is the signalized intersection at E Street/Front Street (within the Proposed Action footprint), where the delay would increase by 2.3 seconds in the AM peak hour and by 2.4 seconds in the PM peak hour; operations at this intersection would remain at an acceptable LOS A. Thus, during the 14-month period when Front Street between Broadway and F Street would be partially closed, similar LOS would be experienced at the analyzed intersections and roadway segments compared to existing conditions and no significant impacts to intersections would occur.

**Table 3.2-8
CONSTRUCTION PERIOD INTERSECTION OPERATIONS SUMMARY**

No. ¹	Intersection	Peak Hour	Existing		Front Street Full Closure			Front Street Partial Closure			Southbound 1st Avenue		
			Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS
1	Ash Street/Pacific Highway (S)	AM	22.3	C	24.7	-2.4	C	22.3	0	C	33.0	-10.7	C
		PM	22.6	C	31.7	-9.1	C	22.6	0	C	31.7	-9.1	C
2	Ash Street/Kettner Boulevard (S)	AM	11.8	B	14.7	-2.9	B	11.8	0	B	14.7	-2.9	B
		PM	12.0	B	10.7	1.3	B	12.0	0	B	10.7	1.3	B
3	Ash Street/Columbia Street (S)	AM	18.2	B	18.4	-0.2	B	18.2	0	B	18.4	-0.2	B
		PM	19.2	B	19.0	0.2	B	19.2	0	B	19.0	0.2	B
4	Ash Street/Front Street (S)	AM	15.5	B	16.1	-0.6	B	15.5	0	B	16.1	-0.6	B
		PM	16.1	B	17.1	-1.0	B	16.1	0	B	17.1	-1.0	B
5	A Street/Front Street (S)	AM	23.1	C	23.7	-0.6	C	23.1	0	C	23.7	-0.6	C
		PM	20.2	C	22.9	-2.7	C	20.2	0	C	22.9	-2.7	C
6	A Street/4th Avenue (S)	AM	17.4	B	20.5	-3.1	C	17.4	0	B	20.5	-3.1	C
		PM	22.9	C	25.7	-2.8	C	22.9	0	C	25.7	-2.8	C
7	A Street/6th Avenue (S)	AM	18.1	B	18.6	-0.5	B	18.1	0	B	18.6	-0.5	B
		PM	24.0	C	24.0	0	C	24.0	0	C	24.0	0	C
8	Broadway/Pacific Highway (S)	AM	25.4	C	33.0	-7.6	C	25.4	0	C	27.8	-2.4	C
		PM	27.8	C	33.6	-5.8	C	27.8	0	C	30.3	-2.5	C
9	Broadway/State Street (S)	AM	8.1	A	7.1	1.0	A	8.1	0	A	7.7	0.4	A
		PM	8.3	A	9.5	-1.2	A	8.3	0	A	8.2	0.1	A
10	Broadway/Front Street (S)	AM	38.7	D	32.6	6.1	C	39.4	-0.7	D	45.0	-6.3	D
		PM	208.4	F	169.7	38.7	F	208.6	-0.2	F	266.5	-58.1	F
11	Broadway/1st Avenue (S)	AM	31.6	C	28.2	3.4	C	31.6	0	C	31.6	0	C
		PM	26.6	C	25.9	0.7	C	26.6	0	C	26.6	0	C
12	Broadway/4th Avenue (S)	AM	7.2	A	8.3	-1.1	A	7.2	0	A	8.7	-1.5	A
		PM	8.3	A	9.8	-1.5	A	8.3	0	A	10.1	-1.8	B
13	Broadway/6th Avenue (S)	AM	13.4	B	14.2	-0.8	B	13.4	0	B	14.6	-1.2	B
		PM	12.1	B	13.2	-1.1	B	12.1	0	B	13.1	-1.0	B
14	E Street/Front Street (S)	AM	6.5	A	5.6	0.9	A	8.8	-2.3	A	6.1	0.4	A
		PM	7.1	A	5.6	1.5	A	9.5	-2.4	A	6.0	1.1	A

Table 3.2-8 (cont.)
CONSTRUCTION PERIOD INTERSECTION OPERATIONS SUMMARY

No. ¹	Intersection	Peak Hour	Existing		Front Street Full Closure			Front Street Partial Closure			Southbound 1st Avenue		
			Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS
15	E Street/1st Avenue (S)	AM	17.6	B	16.7	0.9	B	17.6	0	B	20.3	-2.7	C
		PM	17.7	B	17.6	0.1	B	17.7	0	B	21.1	-3.4	C
16	E Street/4th Avenue (S)	AM	4.5	A	4.4	0.1	A	4.5	0	A	3.8	0.7	A
		PM	5.5	A	5.3	0.2	A	5.5	0	A	4.7	0.8	A
17	F Street/State Street (U)	AM	--	--	--	-	--	--	-	--	--	-	--
		SB L	7.9	A	8.0	-0.1	A	7.9	0	A	7.9	0	A
		WB LR	10.9	B	12.1	-1.2	B	10.9	0	B	11.2	-0.3	B
		PM	--	--	--	--	--	--	--	--	--	--	--
		SB L	7.5	A	7.6	-0.1	A	7.5	0	A	7.5	0	A
		WB LR	10.2	B	11.7	-1.5	B	10.2	0	B	10.5	-0.3	B
18	F Street/Front Street (U)	AM	--	--	--	--	--	--	--	--	--	--	--
		EB R	45.4	E	10.3	35.1	B	45.4	0	E	10.2	35.2	B
		WB L	63.2	F	11.3	51.9	B	63.2	0	F	17.4	45.8	C
		PM	--	--	--	--	--	--	--	--	--	--	--
		EB R	33.6	D	11.1	22.5	B	33.6	0	D	10.8	22.8	B
		WB L	23.7	C	11.3	12.4	B	23.7	0	C	22.1	1.6	C
19	F Street/1st Avenue (S)	AM	0.6	A	0.6	0	A	0.6	0	A	13.8	-13.2	B
		PM	0.6	A	0.68	0	A	0.6	0	A	13.8	-13.2	B
20	F Street/4th Avenue (S)	AM	14.8	B	17.2	-2.4	B	14.8	0	B	16.7	-1.9	B
		PM	17.1	B	17.2	-0.1	B	17.1	0	B	17.1	0	B
21	F Street/6th Avenue (S)	AM	12.3	B	13.4	-1.1	B	12.3	0	B	13.1	-0.8	B
		PM	13.9	B	14.2	-0.3	B	13.9	0	B	11.7	2.2	B
22	G Street/Pacific Highway (U)	AM	--	--	--	--	--	--	--	--	--	--	--
		SB L	8.6	A	8.9	-0.3	A	8.6	0	A	8.8	-0.2	A
		PM	--	--	--	--	--	--	--	--	--	--	--
		SB L	9.6	A	10.0	-0.4	A	9.6	0	A	9.9	-0.3	A
23	G Street/Kettner Boulevard (S)	AM	13.2	B	13.3	-0.1	B	13.2	0	B	13.1	0.1	B
		PM	11.5	B	11.8	-0.3	B	11.5	0	B	11.7	-0.2	B
24	G Street/State Street (S)	AM	11.6	B	13.8	-2.2	B	11.6	0	B	12.0	-0.4	B
		PM	10.9	B	14.0	-3.1	B	10.9	0	B	11.8	-0.9	B

Table 3.2-8 (cont.)
CONSTRUCTION PERIOD INTERSECTION OPERATIONS SUMMARY

No. ¹	Intersection	Peak Hour	Existing		Front Street Full Closure			Front Street Partial Closure			Southbound 1st Avenue		
			Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS	Delay	Change in Delay	LOS
25	Harbor Drive/Pacific Highway (S)	AM	33.3	C	31.9	1.4	C	33.3	0	C	32.4	0.9	C
		PM	31.5	C	32.1	-0.6	C	31.5	0	C	31.7	-0.2	C
26	Harbor Drive/Kettner Boulevard (S)	AM	28.3	C	28.2	0.1	C	28.3	0	C	28.3	0	C
		PM	36.1	D	36.3	-0.2	D	36.1	0	D	36.2	-0.1	D
27	Harbor Drive/Market Street (S)	AM	22.4	C	24.0	-1.6	C	22.4	0	C	23.3	-0.9	C
		PM	24.6	C	25.6	-1.0	C	24.6	0	C	25.1	-0.5	C
28	B Street/Columbia Street (U)	AM	8.9	A	9.0	-0.1	A	8.9	0	A	9.0	-0.1	A
		PM	8.4	A	8.5	-0.1	A	8.4	0	A	8.5	-0.1	A
29	Broadway/Kettner Boulevard (S)	AM	22.1	C	22.6	-0.5	C	22.1	0	C	21.8	0.3	C
		PM	19.9	B	20.4	-0.5	C	19.9	0	B	20.1	-0.2	C
30	Broadway/Columbia Street (S)	AM	6.2	A	6.6	-0.4	A	6.2	0	A	6.7	-0.2	A
		PM	16.7	B	17.2	-0.5	B	16.7	0	B	16.8	-0.1	B
31	Broadway/Union Street (S)	AM	2.9	A	4.0	-1.1	A	2.9	0	A	2.9	0	A
		PM	6.6	A	6.2	0.4	A	6.6	0	A	6.6	0	A
32	G Street/Union Street (U)	AM	11.5	B	16.3	-4.8	C	11.5	0	B	13.4	-1.9	B
		PM	11.6	B	15.9	-4.3	C	11.6	0	B	13.1	-1.5	B

Source: Rick Engineering Company 2019

¹ Number corresponds to intersection location in Figure 3.2-2.

Delay is measured in seconds.

LOS = Level of Service, NB = Northbound, SB = Southbound, EB = Eastbound, WB = Westbound, T = through movement,

L = left-turn movement, R = right-turn movement, (S) = Signalized intersection, (U) = Unsignalized intersection

Queuing

As noted above, some of the study area intersections currently have queuing/stacking issues due to the large amount of left turning vehicles and the turn pockets not providing adequate stacking distance. It is anticipated that the following intersections could potentially have queuing/stacking issues during the peak hours:

- Ash Street/Pacific Highway
- Ash Street/Kettner Boulevard
- Ash Street/Columbia Street
- Broadway/Pacific Highway
- Broadway/State Street
- Broadway/Front Street
- Broadway/1st Avenue
- G Street/Pacific Highway
- G Street/Kettner Boulevard
- G Street/State Street
- Harbor Drive/Pacific Highway

A number of intersections that are located near trolley/train crossings have been identified for detailed analysis in the TIA in order to assess the queuing impacts due to trolley and train service in the vicinity of the Proposed Action, including the following:

- Ash Street/Pacific Highway
- Ash Street/Kettner Boulevard
- Broadway/Pacific Highway
- Broadway/Kettner Boulevard
- Harbor Drive/Kettner Boulevard
- Harbor Drive/Market Street
- Market Street/Columbia Street

The modeling analyzed existing conditions compared to the full closure of Front Street; the operational performance of the signalized intersections located along the rail and trolley corridor was evaluated for the PM peak hours. Table 3.2-9, *Construction Period At-grade Trolley Intersection Operations Summary*, presents the results of the microsimulation analysis of the operations of these seven intersections during construction of the Action Alternative with full closure of Front Street.

As shown in Table 3.2-9, all of the analyzed intersections would continue to operate at LOS D or better during full closure of Front Street, with the exception of the intersection of Broadway and Pacific Highway, which would operate at Los E during the PM peak period for the westbound and southbound approaches with more than a minute delay per vehicle. The maximum queue lengths were 469.4 feet and 485.3 feet for the westbound and southbound approaches, respectively. For the westbound approach, the maximum queue length during full closure would be shorter than the modeled maximum queue length for existing conditions (544.1 feet). For the southbound approach, the maximum queue length would be approximately 178 feet longer than the modeled maximum queue length for existing conditions (307.7).

**Table 3.2-9
CONSTRUCTION PERIOD AT-GRADE TROLLEY INTERSECTION OPERATIONS SUMMARY**

Intersection ¹	Existing						Full Closure of Front Street					
	Delay		LOS		Queue Length		Delay		LOS		Queue Length	
	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max	Avg	Max
1. Ash Street/Pacific Highway (S)												
Overall	15.8	16.5	B	B	117.5	127.3	16.2	17.6	B	B	120.7	144.8
EB	16.3	21.4	B	C	70.8	110.1	18.7	21.2	B	C	70.8	110.1
WB	18.0	25.3	B	C	100.9	122.0	20.4	23.3	C	C	106.3	144.8
NB	12.6	28.4	B	C	69.5	104.9	8.1	10.3	A	B	69.5	102.3
SB	17.0	33.8	B	C	81.2	127.3	17.2	33.7	B	C	81.2	127.3
2. Ash Street/Kettner Boulevard (S)												
Overall	9.9	10.9	A	B	119.5	166.6	10.0	10.4	A	B	124.4	166.6
EB	10.7	11.8	B	B	119.5	166.6	10.9	11.9	B	B	122.1	166.6
WB	11.3	20.1	B	C	81.9	144.8	10.2	11.3	B	B	96.4	144.8
SB	6.7	10.5	A	B	74.1	96.3	7.0	10.1	A	B	71.4	102.2
8. Broadway/Pacific Highway (S)												
Overall	26.9	31.2	C	C	305.0	544.1	33.8	37.6	C	D	372.6	485.3
EB	20.5	34.9	C	C	94.5	197.6	20.5	34.9	C	C	94.5	197.6
WB	20.6	51.6	C	D	201.5	544.1	28.5	63.3	C	E	272.2	469.4
NB	23.2	43.9	C	C	94.1	146.7	23.2	43.9	C	D	94.1	146.7
SB	25.3	47.1	C	C	103.0	307.7	33.1	68.3	C	E	162.7	485.3
23. G Street/Kettner Boulevard (S)												
Overall	12.2	13.0	B	B	211.1	228.5	11.8	12.8	B	B	214.7	228.5
EB	8.4	14.8	A	B	143.2	203.9	13.1	24.3	B	C	145.9	183.9
NB	6.7	12.3	A	B	51.9	106.3	6.5	10.5	A	B	55.4	107.2
SB	9.4	13.1	A	B	64.4	110.0	9.8	11.4	A	B	80.4	164.3
26. Harbor Drive/Kettner Boulevard (S)												
Overall	16.3	17.4	B	B	156.4	193.5	15.5	16.1	B	B	149.0	191.0
EB	14.7	23.4	B	C	84.4	125.0	15.0	26.1	B	C	84.8	144.9
WB	7.8	14.2	A	B	83.8	161.7	7.7	14.1	A	B	75.7	161.4
NB	25.0	28.7	C	C	108.5	145.9	16.2	23.9	B	C	65.4	84.4
SB	31.4	44.1	C	D	146.7	193.5	30.2	37.7	C	D	142.0	191.0
27. Harbor Drive/Market Street (S)												
Overall	18.3	18.8	B	B	171.1	200.4	18.2	18.6	B	B	172.9	200.4
EB	17.8	24.9	B	C	41.2	152.5	17.6	22.5	B	C	92.3	145.8
WB	16.8	24.6	B	C	62.2	106.5	16.8	24.6	B	C	62.2	106.5
NB	15.4	32.2	B	C	30.3	62.4	15.4	32.3	B	C	30.3	62.4
SB	21.4	26.2	C	C	169.1	200.4	21.4	26.2	C	C	169.0	200.4
29. Broadway/Kettner Boulevard (S)												
Overall	17.2	19.9	B	B	201.2	234.6	20.3	25.5	C	C	294.1	447.4
EB	14.0	28.9	B	C	122.5	234.6	12.6	21.4	B	C	144.7	190.4
WB	15.2	24.1	B	C	116.3	205.7	20.3	47.3	C	D	212.0	447.4
NB	11.7	15.1	B	B	40.5	64.5	11.7	14.9	B	B	40.7	64.5
SB	8.5	14.0	A	B	53.0	99.2	9.1	15.4	A	B	60.2	103.5

Source: Rick Engineering Company 2019

¹ Number corresponds to intersection location in Figure 3.2-2.

Delay is measured in seconds.

LOS = Level of Service, EB = Eastbound, WB = Westbound, NB = Northbound, SB = Southbound; (S) = Signalized intersection;

Avg = Average Queue Length; Max = Maximum Queue Length

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, and the existing building would remain in its current condition. Because no construction activities would occur, the No Action Alternative would not result in construction impacts to vehicular traffic.

Traffic Operations Impacts

Action Alternative

Under the Action Alternative, Front Street in the vicinity of the Proposed Action Footprint would be partially or fully closed during the construction period, but would be reopened to vehicle and pedestrian traffic in the current configuration once the Proposed Action is completed. No changes to the capacity or geometrics of Front Street between Broadway and F Street are currently proposed for the Proposed Action and no other roadways or intersections are anticipated to be affected after the construction period. Therefore, there would be no long-term impacts to traffic operations resulting from the Proposed Action.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented and the existing building would remain in its current condition. Retaining the existing Schwartz FOB as is would not require rerouting of vehicle traffic. Although the No Action Alternative would not meet the purpose and need for the Proposed Action, it would result in no impacts to traffic operations.

Pedestrian and Bicycle Facility Impacts

Action Alternative

Under the Action Alternative, the wide sidewalks on both sides of Front Street and separated, lighted sidewalks on either side of the existing the Schwartz FOB Front Street underpass would be closed during the 26-month construction period, but replaced after construction is complete. No other pedestrian facilities would be affected. Although pedestrian access through the Proposed Action site would be temporarily restricted during the construction period (approximately 26 months), detours and alternative pedestrian routes would be available nearby, and a temporary crosswalk with pedestrian ramps constructed in compliance with the Americans with Disabilities Act of 1990 would be placed to the north of the existing crosswalk at E Street to allow public access between the western and eastern sides of Front Street during construction. There would be no long-term impact to pedestrian facilities.

No designated bicycle facilities are present on Front Street within or adjacent to the Proposed Action site, so none would be affected by the Action Alternative during the construction period or long term. The Action Alternative would not affect other nearby existing bike lanes, sidewalks, or bicycle facilities within the Proposed Action vicinity. No significant pedestrian or bicycle circulation impacts would result from the Action Alternative.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities

would occur. Retaining the existing Schwartz FOB as is would not require rerouting of pedestrian or bicycle traffic. Although the No Action Alternative would not meet the purpose and need for the Proposed Action, it would result in no impacts to pedestrian or bicycle facilities.

Transit Facility Impacts

Action Alternative

MTS Bus Routes

Under the Action Alternative, Route 11 and Route 150 buses traveling south on Front Street through the Proposed Action site would have to be diverted to other nearby streets during Proposed Action construction. Regular bus stops at Front Street and F Street and possibly other nearby bus stops would be discontinued during this period. While this could result in some inconvenience to bus riders, it would be temporary, and Route 11 and Route 150 bus service would remain available from stops on nearby streets. Transit patrons who normally use these stops would likely have to walk less than one tenth of a mile to reach the next closest bus stop. Additionally, an option to convert one lane of 1st Avenue to southbound travel to allow access by MTS buses may be included in the Traffic Control Plan, if feasible. It is recommended that coordination with MTS officials occur early in the permit process to provide enough time for MTS to redirect these two routes and to relocate the existing bus stops that will be affected by the closure of Front Street. It should be noted that there are eleven routes (7, 30, 50, 110, 215, 235, 280, 290, 901, 923 and 992) that travel along Broadway, that are anticipated continue to function and not be impacted by the closure of Front Street.

At-grade Trolley/Train Crossings

As previously described, the trolley runs along Broadway and Harbor Drive in this area, and the nearest train station is the Santa Fe Depot at Broadway and Kettner Boulevard; because these facilities are not located within or adjacent to the Proposed Action site, construction activities would not directly interrupt service routes or impede access to stations. As described above, a detailed analysis was conducted to analyze the potential queuing impacts at the at-grade intersections by the existing trolley and train service in the Proposed Action study area. Table 3.2-8 shows that during full closure of Front Street, all intersections are shown to continue to operate at LOS D or better during the PM peak hour, with the exception of the intersection of Broadway and Pacific Highway.

Based on the microsimulation analysis, it is possible that vehicles may experience additional delays at at-grade trolley crossings in the Proposed Action study area during peak hours due to priority being given to the trolley at signalized intersections. In urbanized areas such as Downtown San Diego, the traffic flow is controlled by a coordinated signal system operated by the City to facilitate commuter or otherwise heavy traffic flows on major streets. According to the City's Street Division website, each signalized intersection is run by its own computer, which observes the amount of traffic flow and can trigger the lights for cross traffic (City 2019). Lights on major thoroughfares are programmed to stay green longer during peak travel times. The trolley operates on a priority system, which provides favorable timing to the trolley as part of the normal operation of traffic signals. Transit officials from MTS indicated that in the Downtown area, trolleys operate on a regular schedule independently of roadway conditions and would not be affected by changing traffic conditions along detour routes during construction. Thus, the Action Alternative would not adversely affect trolley services or other transit services or facilities in the vicinity.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not require rerouting of bus services. Although the No Action Alternative would not meet the purpose and need for the Proposed Action, it would result in no transit impacts.

Attractions and Events in Downtown San Diego

Action Alternative

As described above, while Front Street is not used directly for parades, street fairs, runs, or other events, there are a number of special events that occur within the Proposed Action study area that may require road closures or detours that would be in conflict with the proposed detours. Event operators would need to be informed of the detours proposed to be implemented during full closure of Front Street between E Street and F Street, and detours may need to be modified to accommodate conflicting special event road closures. The construction contractor would coordinate with City of San Diego staff to identify temporary alternative detours necessary to accommodate these events.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not conflict with ongoing and special events or detours. Although the No Action Alternative would not meet the purpose and need for the Proposed Action, it would result in no impacts associated with special event street closures.

3.2.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative

Because no substantial adverse impacts would result from implementation of the Action Alternative with respect to traffic, transportation, or pedestrian, bicycle, and public transit facilities, no avoidance, minimization, or mitigation measures are required. A Traffic Control Plan would be prepared and implemented to identify detours to be implemented during full closure of Front Street and address temporary impacts resulting from the closure. Street closures would be coordinated through the City of San Diego and a Traffic Control Permit would be obtained prior to implementation of the Action Alternative. Since most visitors typically use internet applications installed in their cellular phones for travel directions toward a destination, the construction contractor would coordinate with the most used applications (Google Maps, Waze, Apple Maps, etc.) to provide the anticipated detours when Front Street is closed. This would help minimize confusion for drivers heading south on Front Street.

For the optional conversion of one lane of traffic along 1st Avenue between E Street and F Street to southbound travel during full closure of Front Street, the intersection of Broadway and Front Street would operate at LOS F during the PM peak hour with almost a minute increase in delay compared to existing conditions. As described above, this would be an unacceptable increase in delay per the City's traffic impact thresholds. No mitigation has been identified to alleviate the temporary increase in delay modeled at this intersection during full closure of Front Street between E Street and F Street; however,

implementation of this option would provide access for fire and rescue vehicles and MTS buses and reduce impacts to transit and emergency services. Moreover, the identified impact would be temporary and would only occur during the approximately 14-month full closure phase of construction. The feasibility of the optional lane conversion on 1st Avenue will be determined in coordination with the City of San Diego.

No Action Alternative

No project action would occur under the No Action Alternative, so no avoidance, minimization, or mitigation measures would be required.

3.3 NOISE AND VIBRATION

This subchapter evaluates potential environmental effects related to noise and vibration effects generated during construction and operation of the Proposed Action.

Noise can be generally defined as unwanted or unwelcome sound. Noise levels are usually measured in decibels (dB), on a logarithmic scale, that are weighted to sounds perceivable to the human ear (A-weighted sound level dBA). A-weighted decibels account for the fact that the human ear is not equally sensitive to all frequencies. Because noise sources may produce varying degrees of sound throughout the period of operation or occurrence, time-averaged noise levels are typically expressed by the symbol L_{EQ} , with a specified duration.

3.3.1 Regulatory Setting

Noise

The Noise Control Act of 1972 (Public Law 92-574) directs federal agencies to comply with applicable federal, state, interstate, and local noise control regulations. Noise levels in the DCP Area, including the Proposed Action site, are guided by policies and standards set by the City of San Diego. The City's Noise Ordinance regulates both operational and construction noise and establishes maximum permissible sound levels for specific times of the day for an operation, activity, or noise source on a property. For the Proposed Action, no changes to the existing operations at the Schwartz FOB are proposed and as such, only temporary noises associated with construction activities are evaluated in this EA. Section 59.5.0404 of City's Noise Ordinance limits construction noise to an average sound level of 75 dBA L_{EQ} at the affected property line during the 12-hour period from 7:00 a.m. to 7:00 p.m. Construction activities are prohibited between the hours of 7:00 p.m. and 7:00 a.m. and on Sundays and legal holidays, except in the case of emergency or if a permit has been obtained by the Noise Abatement and Control Administrator.

Vibration

Vibration effects are guided by findings of the Transportation and Construction Vibration Guidance Manual (California Department of Transportation [Caltrans] 2013), which provides direction for addressing vibration issues from construction and operational vibration sources. For the Proposed Action, no changes to the existing operations at the Schwartz FOB are proposed and as such, only vibration associated with construction activities are evaluated in this EA. A significant vibration impact would occur if the Proposed Action would subject vibration-sensitive land uses to construction-related ground-borne vibration that exceeds the unpleasant vibration annoyance potential criteria for human receptors of 0.4 inches per second peak particle velocity (PPV). For structures, applicable thresholds include a maximum of 0.3 inches per second PPV before the potential for damage to structures resulting from continuous/frequent intermittent construction vibration sources (such as impact pile drivers, vibratory pile drivers, and vibratory compaction equipment) and 0.7 inches per second PPV resulting from vibration during a single event.

3.3.2 Affected Environment

Since noise attenuates with distance, the study area used to evaluate potential noise impacts is limited to the areas immediately adjacent to the Proposed Action site. The primary existing noise source in the

vicinity of the Proposed Action consists of roadway traffic noise on adjacent roadways, including Broadway, Union Street, and 1st Avenue, as well as the San Diego Trolley light rail line and distant aircraft noise approaching the SDIA. Construction activities within the DCP Area are common and contribute to the existing noise levels. Existing ambient noise levels at the Proposed Action site are anticipated to be 70 to 75 dBA L_{EQ} , which is an estimated daytime ambient noise level for active urban downtown areas (Caltrans 1998).

Land uses within the immediate vicinity of the Proposed Action that are currently exposed to noise levels around 75 dBA L_{EQ} primarily include commercial and office uses that are not generally considered to be sensitive receptors to noise. There are three noise-sensitive land uses within the vicinity of the Proposed Action: the Moskowitz Child Care Center located approximately 150 feet west of the centerline of Front Street within the Schwartz FOB, the public open space turf areas located south of the Schwartz FOB on either side of Front Street between Union Street and 1st Avenue (not designated parkland), and the multi-family residences located approximately 90 feet south of the Proposed Action staging area across F Street. These uses would be sensitive to elevated noise levels during the daytime when they are in use.

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations, are considered “vibration-sensitive” (Federal Transit Administration [FTA] 2006). The degree of sensitivity depends on the specific equipment that would be affected by the ground-borne vibration. In addition, excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses or schools. Similar to noise-sensitive land uses for noise, vibration-sensitive land uses are limited to the child care center and public open space turf areas identified above, as well as the multi-family residences located across F Street.

3.3.3 Environmental Consequences

Action Alternative

Implementation of the Action Alternative would not result in long-term adverse noise or vibration impacts, since no changes to existing operational noise-generating land uses are proposed. Short-term increases above existing ambient noise levels of around 75 dBA L_{EQ} are expected during construction. The most substantial noise increases from construction activities that may affect off-site uses would occur during demolition and building construction. As described in Section 2.1.3, demolition of the existing sidewalk and building materials would occur over a period of five months. Demolition of the existing sidewalk and structural materials would require the use of a variety of construction equipment and heavy machinery, including concrete/industrial saws, jackhammers, excavators, forklifts, dump trucks, skid steers, road construction equipment, scissor lifts, welding torches, various hand tools, etc. Construction of the proposed structural enhancements and sidewalks/paving, which is anticipated to occur over a period of 26 months, would require the use of lifts and other heavy machinery, in addition to scissor lifts, welding machines, concrete trucks, metal saws, concrete chipping equipment, and roto hammers.

Construction of the Action Alternative would occur between the hours of 7:00 a.m. to 7:00 p.m. during permitted construction days (no Sunday or holiday work), pursuant to the City’s Noise Ordinance. A portion of the open space areas to the south of the Schwartz FOB would be utilized for temporary staging and storage of construction equipment (refer to Figure 2). Because construction would

temporarily preclude use of the open space park areas and would only occur during the daytime hours, recreational use of these areas would not be impacted by construction noise as access would be restricted.

Construction activities would occur during the daytime operation of the child care center. The child care center rooms are located within the Schwartz FOB, approximately 150 feet west of the area where construction activities would occur.¹ As shown in Table 3.3-1, *Typical Construction Equipment Noise Levels*, construction equipment would generate temporary noise levels ranging from 71 and 90 dBA L_{EQ} (1-hour) at a reference distance of 50 feet. Some construction equipment would overlap with others, such as the pickup trucks with louder equipment; however, none of the anticipated types of equipment would operate all the time during construction. Additionally, none of the equipment would operate more than 50 percent of the time, as the usage factor ranges between 20 and 50 percent for the anticipated construction equipment. As a result, construction noise would vary depending on the mix of equipment in use.

As noise intensity reduces with distance, noise at the exterior of the child care center (150 feet) would be reduced by approximately 10 dBA from the reference distance (50 feet) as shown in Table 3.3-1. As a result, most equipment noise would be reduced to at or below 75 dBA L_{EQ} (1-hour) at the exterior of the child care center. Although a metal saw would generate noise levels exceeding 75 dBA L_{EQ} (1-hour), it would not be in use for all 12 hours of a given work day. Furthermore, the offices and structural elements within the Schwartz FOB are located between the area of construction activity and the child care center, which would provide additional attenuation from construction noise. Noise levels are therefore not expected to exceed the City's construction noise standard of 75 dBA L_{EQ} (1-hour) over a 12-hour work day at the nearest sensitive receptors and impacts would not be adverse. However, construction BMPs would be implemented to further reduce short-term construction noise (refer to Table 2-1 and Section 3.3.4, below).

The child care center would also utilize the outdoor playground located at the western end of the adjacent open space park areas. This area is located approximately 200 feet southwest of the area where construction activities would occur. At this distance, noise levels would range between 59 and 78 dBA L_{EQ} . As described above, although a metal saw would generate noise levels exceeding 75 dBA L_{EQ} (1-hour), it is only expected to be in use for short periods of time throughout a given work day. Furthermore, it would be used within the Front Street underpass of the Schwartz FOB and would therefore be attenuated by existing structural elements. At 300 feet, a metal saw would generate noise levels of approximately 74 dBA L_{EQ} (1-hour). The nearest properties (such as the multi-family residences across F Street to the south) would therefore not be subject to excessive noise levels from construction activities.

¹ As noted in Section 3.3.1, the City's Noise Ordinance regulates noise at the affected property line. Because the child care center is not located outside the property line of the Schwartz FOB, it is not subject to these standards.

**Table 3.3-1
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS**

Equipment Type	Usage Factor (%)	Noise Level at 50 Feet (dBA L _{EQ})	Noise Level at 150 Feet (dBA L _{EQ})	Noise Level at 200 Feet (dBA L _{EQ})
Metal Saw ¹	20	90	80	78
Forklift/Manlift ¹	20	85	75	73
Cement and Mortar Mixer (> 5 HP) ¹	50	85	75	73
Paint Sprayer ¹	20	85	75	73
Coring Machine ¹	20	85	75	71
Mounted Impact Hammer ²	20	83	73	71
Concrete/Industrial Saw ²	20	83	73	71
Tractor/Loader/Backhoe/Skid Steer ²	40	75	65	63
Concrete Truck ²	40	75	65	63
Concrete Pump ²	20	74	64	62
Paver ²	50	74	64	62
Roller ²	20	73	63	61
Crane ²	16	73	63	61
Pickup Truck ²	40	71	61	59

Sources: ¹ Defra 2005; ² USDOT 2008

HP = Horsepower; dBA = A-weighted decibels; L_{EQ} = time-averaged noise levels

Construction equipment generating vibration such as impact pile drivers, vibratory pile drivers, or vibratory compaction equipment would not be used during implementation of the Action Alternative. Vibration from general construction activity would not be perceptible at neighboring properties, and no adverse vibration effects would occur.

No Action Alternative

Implementing the No Action Alternative would result in no temporary noise or vibration impacts. Under this alternative, no construction would occur and none of the proposed structural enhancements to the Schwartz FOB would be implemented. As a result, no construction noise or vibration would be experienced by sensitive receptors and no adverse noise or vibration impacts would occur.

3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative

Because no substantial adverse impacts would result from implementation of the Action Alternative with respect to noise and vibration, no avoidance, minimization, or mitigation measures are required. The following construction BMPs would further reduce noise and vibration effects during construction of the Action Alternative (refer to Table 2-1):

- Properly outfit and maintain construction equipment with manufacturer-recommended noise reduction devices to minimize construction-generated noise.

- Operate all diesel equipment with closed engine doors and equip with factory recommended mufflers.
- Employ additional noise attenuation techniques as needed to reduce excessive noise levels. Such techniques shall include, but not be limited to, the construction of temporary sound barriers or sound blankets between construction/staging areas and nearby noise-sensitive receptors.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) is prohibited.
- Material stockpiles and mobile equipment staging, parking, and maintenance areas are to be located as far as practicable from noise sensitive receptors.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints.

No Action Alternative

No avoidance, minimization, or mitigation measures would be required under the No Action Alternative and no adverse impacts would result.

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3.4 AIR QUALITY AND GREENHOUSE GAS EMISSIONS

This subchapter evaluates potential environmental effects related to air quality and greenhouse gas (GHG) emissions as a result of the Proposed Action.

3.4.1 Regulatory Setting

Federal Clean Air Act

The federal Clean Air Act (CAA), as amended in 1990, is the federal law that governs air quality. This law and related regulations by the U.S. Environmental Protection Agency (USEPA) set standards for the quantity of pollutants that can be in the air. At the federal level, these standards are called the National Ambient Air Quality Standards (NAAQS); NAAQS have been established for six criteria pollutants that have been linked to potential health concerns. The six major air pollutants of concern, called “criteria pollutants,” include carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), suspended particulate matter (PM), and lead (Pb). Suspended particulate matter is further categorized as particulates less than or equal to 10 microns in diameter (PM₁₀) and fine particulate matter less than or equal to 2.5 microns in diameter (PM_{2.5}). The NAAQS for each of the regulated pollutants are shown in Table 3.4-1, *Federal Criteria Air Pollutant Standards, Effects, and Sources*.

In addition to the six criteria pollutants, the USEPA designated 188 substances as hazardous air pollutants (HAPs) under the federal CAA, some of which are also Mobile Source Air Toxics (MSATs). HAPs and MSATs are air pollutants known to cause or suspected of causing serious health effects (such as cancer), or adverse environmental effects. No NAAQS have been established for HAPs. Examples of MSATs include diesel particulate matter (DPM). HAPs are regulated under the CAA’s National Emission Standards for Hazardous Air Pollutants, which apply to specific sources of HAPs; and under the Urban Air Toxics Strategy, which applies to area sources.

Air pollutants are classified as either primary or secondary pollutants, based on how they are formed. Primary air pollutants are emitted directly into the atmosphere and secondary air pollutants are formed through atmospheric chemical reactions. Ozone is a secondary air pollutant and is formed by a reaction between two precursor pollutants: nitrogen oxides (NO_x) and volatile organic compounds (VOCs, also referred to as reactive organic gases [ROGs]). Finally, some air pollutants are a combination of primary and secondary pollutants, such as PM₁₀ and PM_{2.5}.

The USEPA classifies air basins (or portions thereof) as being in “attainment,” “nonattainment,” or “unclassified” for each criteria air pollutant based on whether or not the NAAQS have been achieved. Areas designated as “maintenance” signifies former nonattainment areas. If an area is designated unclassifiable, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation.

The Proposed Action is located in the San Diego Air Basin (SDAB). Table 3.4-1, lists the federal attainment status of the SDAB for the criteria pollutants. The USEPA classifies the SDAB as in attainment for ozone (1-hour), PM_{2.5}, NO₂, SO₂, and lead, and unclassifiable for PM₁₀ with respect to federal air quality standards. The SDAB is classified as nonattainment for ozone (8-hour). The SDAB also has been designated by the USEPA as a federal maintenance area for the CO standard.

**Table 3.4-1
FEDERAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES**

Pollutant	Averaging Time	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Federal Attainment Status
Ozone (O ₃) ²	1 hour 8 hours	--- 0.070 ppm (annual fourth highest daily maximum 8-hours averaged over 3 years)	High concentrations irritate lungs. Long-term exposure may cause lung tissue damage and cancer. Long-term exposure damages plant materials and reduces crop productivity. Precursor organic compounds include many known toxic air contaminants and biogenic sources.	Low-altitude ozone is almost entirely formed from reactive organic gases/volatile organic compounds (ROG or VOC) and nitrogen oxides (NO _x) in the presence of sunlight and heat. Major sources include motor vehicles and other mobile sources, solvent evaporation, and industrial and other combustion processes.	Attainment (1-hour) Nonattainment (8-hour)
Carbon Monoxide (CO)	1 hour 8 hours	35 ppm 9 ppm	CO interferes with the transfer of oxygen to the blood and deprives sensitive tissues of oxygen. CO also is a minor precursor for photochemical ozone.	Combustion sources, especially gasoline-powered engines and motor vehicles. CO is the traditional signature pollutant for on-road mobile sources at the local and neighborhood scale.	Maintenance
Respirable Particulate Matter (PM ₁₀)	24 hours Annual	150 µg/m ³ ---	Irritates eyes and respiratory tract. Decreases lung capacity. Associated with increased cancer and mortality. Contributes to haze and reduced visibility. Includes some toxic air contaminants. Many aerosol and solid compounds are part of PM ₁₀ .	Dust- and fume-producing industrial and agricultural operations; combustion smoke; atmospheric chemical reactions; construction and other dust-producing activities; unpaved road dust and re-entrained paved road dust; natural sources (wind-blown dust, ocean spray).	Unclassifiable
Fine Particulate Matter (PM _{2.5})	24 hours Annual	35 µg/m ³ (98 th percentile over 3 years) 15.0 µg/m ³ (annual mean averaged over 3 years)	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and produces surface soiling. Most diesel exhaust particulate matter – a toxic air contaminant – is in the PM _{2.5} size range. Many aerosol and solid compounds are part of PM _{2.5} .	Combustion including motor vehicles, other mobile sources, and industrial activities; residential and agricultural burning; also formed through atmospheric chemical (including photochemical) reactions involving other pollutants including NO _x , sulfur oxides (SO _x), ammonia, and VOC.	Attainment

**Table 3.4-1 (cont.)
FEDERAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES**

Pollutant	Averaging Time	Federal ¹ Standard	Principal Health and Atmospheric Effects	Typical Sources	Federal Attainment Status
Nitrogen Dioxide (NO ₂)	1 hour Annual	100 ppb ³ (98 th percentile over 3 years) 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown. Part of the “NO _x ” group of ozone precursors.	Motor vehicles and other mobile sources; refineries; industrial operations.	Attainment
Sulfur Dioxide (SO ₂)	1 hour 3 hours 24 hours Annual	0.075 ppm ⁴ (98 th percentile over 3 years) 0.5 ppm 0.14 ppm 0.030 ppm	Irritates respiratory tract; injures lung tissue. Can yellow plant leaves. Destructive to marble, iron, steel. Contributes to acid rain. Limits visibility.	Fuel combustion (especially coal and high-sulfur oil), chemical plants, sulfur recovery plants, metal processing; some natural sources like active volcanoes. Limited contribution possible from heavy-duty diesel vehicles if ultra-low sulfur fuel not used.	Attainment
Lead (Pb) ³	Quarterly Rolling 3-month average	1.5 µg/m ³ 0.15 µg/m ³	Disturbs gastrointestinal system. Causes anemia, kidney disease, and neuromuscular and neurological dysfunction. Also a toxic air contaminant and water pollutant.	Lead-based industrial processes like battery production and smelters. Lead paint, leaded gasoline. Aerially deposited lead from gasoline may exist in soils along major roads.	Attainment

Sources: USEPA NAAQS table(2018b), USEPA criteria air pollutants overviews (2018a), and USEPA nonattainment areas for criteria pollutants (2018c).

1. Federal standards are “not to exceed more than once a year” or as noted in parenthesis above.
 2. Final rule signed March 12, 2008. The 1997 ozone standard (0.08 ppm, annual fourth-highest daily maximum 8 hour concentration, averaged over 3 years) and related implementation rules remain in place. In 1997, USEPA revoked the 1-hour ozone standard (0.12 ppm, not to be exceeded more than once per year) in all areas, although some areas have continued obligations under that standard (“anti-backsliding”). The 1-hour ozone standard is attained when the expected number of days per calendar year with maximum hourly average concentrations above 0.12 ppm is less than or equal to 1.
 3. Final 1-hour NO₂ NAAQS published in the Federal Register on 2/9/2010, effective 3/9/2010. Initial nonattainment area designations should occur in 2012 with conformity requirements effective in 2013. Project-level hot spot analysis requirements, while not yet required for conformity purposes, are expected. Note: San Diego County have been designated as attainment.
 4. USEPA finalized a 1-hour SO₂ standard of 0.075 ppm in June 2010.
- ppm = parts per million; µg/m³ = micrograms per cubic meter; ppb = parts per billion (thousand million)

Section 176(c) of the CAA: Air Quality Conformity

In 1993, the USEPA promulgated two sets of regulations to implement Section 176(c) of the CAA. The Transportation Conformity Regulations establish the criteria and procedures for determining whether transportation plans, programs, and projects funded under title 23 of the U.S. Code or the Federal Transit Act conform with the State Implementation Plans to attain or maintain regional air quality that meets the NAAQS. Second, General Conformity Regulations cover most aspects of federally funded or approved actions not covered by the Transportation Conformity Regulations. Only General Conformity applies to the Proposed Action. The purpose of General Conformity is to ensure that:

- Federal activities do not cause or contribute to new violations of NAAQS;
- Actions do not worsen existing violations of the NAAQS; and
- Attainment of the NAAQS is not delayed.

The 2010 revision to the General Conformity Regulations (40 CFR parts 51 and 93) removed the requirements for federal agencies to conduct conformity determinations for “regionally significant” actions—only project-level conformity analysis is required.

Regulation of Greenhouse Gases under the CAA

Global climate change refers to changes in average climatic conditions on Earth including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases that include water vapor, carbon dioxide (CO₂), methane (CH₄), and nitrogen dioxide (N₂O). These atmospheric gases are known as GHGs. In addition to the naturally occurring gases, man-made compounds also act as GHG; common examples include hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These compounds are the result of several activities including vehicular use, energy consumption/production, manufacturing, and livestock ranching. These man-made compounds increase the natural concentration of GHG in the atmosphere.

The U.S. Supreme Court ruled on April 2, 2007 in *Massachusetts v. U.S. Environmental Protection Agency* that CO₂ is an air pollutant, as defined under the CAA, and that USEPA has the authority to regulate emissions of GHG. In December 2009, USEPA issued its “Endangerment Finding,” which found that current and projected levels of six GHGs threaten the health and human welfare of current and future generations. The USEPA specifically identified CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ as GHGs. The endangerment findings do not themselves impose any requirements on industry or other entities.

On October 30, 2009, USEPA published a rule (40 CFR part 98) for the mandatory reporting of GHGs from sources that emit 25,000 metric tons (MT) or more of carbon dioxide equivalent (CO₂e) per year in the U.S. (USEPA 2013), where CO₂e is the standard unit for measuring the impact of GHGs in terms of the amount of CO₂ that would create the same amount of warming. Smaller sources and certain sectors such as the agricultural sector and land use changes were excluded from the reporting requirement. Implementation of 40 CFR Part 98 is referred to as the Greenhouse Gas Reporting Program (GHGRP).

The USEPA began regulating GHGs under the CAA from mobile and stationary sources of air pollution for the first time on January 2, 2011. Standards for mobile sources have been established pursuant to Section 202 of the CAA, and GHGs from stationary sources are currently controlled under the authority of Part C of Title I of the Act. The basis for regulations was upheld in the U.S. Court of Appeals for the District of Columbia in June 2012.

Council of Environmental Quality Final Guidance on Greenhouse Gases and Climate Change

The Council on Environmental Quality (CEQ) has withdrawn its final guidance for federal agencies on how to consider GHG emissions and the effects of climate change in NEPA reviews, a Notice of Availability for which was published on August 5, 2016 (81 Federal Register 51866). As explained in the Notice of Availability, the withdrawn guidance was not a regulation. Pursuant to Executive Order 13783, “Promoting Energy Independence and Economic Growth,” of March 28, 2017, the guidance has been withdrawn for further consideration.

3.4.2 Affected Environment

Climate and Meteorology

The Proposed Action site is located in the SDAB, which coincides with San Diego County. The climate of the County is characterized by warm, dry summers and mild, wet winters. One of the main determinants of the climatology is a semi-permanent high-pressure area (the Pacific High) in the eastern Pacific Ocean. In the summer, this pressure center is located well to the north, causing storm tracks to be directed north of California. This high-pressure cell maintains clear skies for much of the year. When the Pacific High moves southward during the winter, this pattern changes, and low-pressure storms are brought into the region causing widespread precipitation. In the County, the months of heaviest precipitation are November through April, averaging about 10 inches annually at the coast (Western Regional Climate Center 2016). The Pacific High also influences the wind patterns of California. The predominant wind directions are westerly and west-southwesterly during all four seasons, and the average annual wind speed is 5.6 miles per hour.

A common atmospheric condition known as a temperature inversion affects air quality in San Diego. During an inversion, air temperatures get warmer rather than cooler with increasing height. Subsidence inversions occur during the warmer months (May through October) as descending air associated with the Pacific High comes into contact with cooler marine air. The boundary between the layers of air represents a temperature inversion that traps pollutants below it. The inversion layer is approximately 2,000 feet above mean sea level (AMSL) during the months of May through October. However, during the remaining months (November through April), the temperature inversion is approximately 3,000 feet AMSL. Inversion layers are important elements of local air quality because they inhibit the dispersion of pollutants, thus resulting in a temporary degradation of air quality.

Existing Ambient Air Quality

Existing air quality conditions in the Proposed Action area can be characterized by monitoring data collected in the region. Ambient air pollutant concentrations in the SDAB are measured at multiple monitoring stations. The USEPA provides the AirData Air Quality Summary Reports with data from monitoring stations around the country. In addition, the California Air Resources Board (CARB) gathers air quality data from monitoring stations throughout the state of California and provides an online database of pollutant concentrations and NAAQS exceedances. This data was used to determine the ambient air quality summary for the San Diego region. Specific data from San Diego Beardsly Street Monitoring Station, approximately 1.3 miles southeast of the Proposed Action site, was used, when available, to characterize the ambient air quality in the downtown San Diego area. In cases when data from the Beardsly Street Station was not available, data from the closest monitoring stations to the

Proposed Action site was used and is noted. Table 3.4-2, *Ambient Air Quality Summary*, presents the excesses of standards and the highest pollutant levels recorded at these stations for the years 2015 to 2017. During this time in the San Diego area, the NAAQS ozone standards were exceeded four times in 2017. No standards were exceeded for any other pollutants during these three years.

**Table 3.4-2
AMBIENT AIR QUALITY SUMMARY**

Pollutant Standards	2015	2016	2017
Carbon Monoxide (CO)			
Maximum 1-hour concentration (ppm)	1.9 ¹	1.2 ¹	1.5 ²
Maximum 8-hour concentration (ppm)	2.6 ¹	1.6 ¹	1.9 ²
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (>35 ppm)	0	0	0
NAAQS 8-hour (>9 ppm)	0	0	0
Nitrogen Dioxide (NO₂)			
Maximum 1-hour concentration (ppb)	62 ¹	73 ¹	44 ³
Annual Average (ppb)	13.57 ¹	11.72 ¹	10.13 ³
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour	0	0	0
NAAQS Annual	0	0	0
Sulfur Dioxide (SO_x)			
Maximum 1-hour concentration (ppb)	1.2 ³	1.8 ³	1.1 ³
Maximum 24-hour concentration (ppm)	0.4 ³	0.5 ³	0.4 ³
Annual average concentration (ppm)	0.11 ³	0.11 ³	0.11 ³
<i>Number of Days Standard Exceeded</i>			
NAAQS 1-hour (> 75 ppb)	0	0	0
NAAQS 24-hour (>0.14 ppm)	0	0	0
NAAQS 24-hour (>0.030 ppm)	0	0	0
Ozone (O₃)¹			
Maximum 8-hour concentration (ppm)	0.067 ¹	0.061 ¹	0.074 ⁴
<i>Number of Days Standard Exceeded</i>			
NAAQS 8-hour (>0.070 ppm)	0	0	4
Coarse Particulate Matter (PM₁₀)¹			
National maximum 24-hour concentration (µg/m ³)	53 ¹	49 ¹	59 ⁴
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour (>150 µg/m ³)	0	0	0
Fine Particulate Matter (PM_{2.5})			
Maximum 24-hour concentration (µg/m ³)	33.4 ¹	34.4 ¹	42.7 ⁴
<i>Number of Days Standard Exceeded</i>			
NAAQS 24-hour >35 µg/m ³)	0	0	0

Source: USEPA 2018d

Notes: ¹ Beardsley Street, San Diego Monitoring Station; ² Rancho Carmel Drive, San Diego Monitoring Station; ³ First Street, El Cajon Monitoring Station; ⁴ J Street, Chula Vista Monitoring Station.

ppm = parts per million; µg/m³ = micrograms per cubic meter; ppb = parts per billion (thousand million)

Sensitive Receptors

Air pollutant-sensitive receptors are typically defined as schools (preschool-12th grade), hospitals, resident care facilities, or day-care centers, or other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. The following sensitive receptors are located within 1 mile of the Proposed Action site; the closest sensitive receptor is the Moskowitz Child Care Center, located within the Schwartz FOB, approximately 150 feet from the Proposed Action site:

- King-Chavez Community High School, 1010 2nd Avenue
- King-Chavez High School, 201 A Street
- Garfield Senior High School, 1255 16th Street
- The Charter School of San Diego, 1095 K Street
- San Diego High School, 1405 Park Boulevard
- Kipp Adelante Preparatory Academy, 1475 6th Avenue
- Monarch School, 1625 Newton Avenue
- Moskowitz Child Care Center, 880 Front Street
- Sleeping Beauty Day Care, 600 B Street

Methodology, Assumptions, and Thresholds

Construction Air Pollutant Emissions

Construction air pollutant emissions were estimated using the California Emission Estimator Model (CalEEMod), version 2016.3.2. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant and GHG emissions associated with both construction and operation from a variety of land use projects. CalEEMod utilizes widely accepted methodologies for estimating emissions combined with default data that can be used when site-specific information is not available. Sources of these methodologies and default data include, but are not limited to, the USEPA AP-42 emission factors, the CARB OFFROAD2011 off-road vehicle emissions model, and the CARB EMFAC2014 on-road vehicle emissions model. The model calculates emissions of CO, PM₁₀, PM_{2.5}, SO₂, ROG, NO_x, CO₂, CH₄, and N₂O.

Heavy construction equipment types and quantity requirements, as well as on-road truck trips for material deliveries and debris hauling, were based on estimates from the construction managing firm for the Proposed Action (Hensel Phelps 2018). Estimated equipment and truck trips are summarized in Table 3.4-3, *Maximum Anticipated Construction Equipment and Truck Trips*. The trip distances for debris hauling, material delivery, and worker commutes were based on CalEEMod default values for San Diego County. The construction crew size would vary depending on the daily construction activities. Estimates of construction crew size was not available at the time of emissions modeling. To be conservative, an average daily crew size of 20 was used, 25 percent higher than the CalEEMod default maximum crew size of 16. Additionally, to be consistent with San Diego Air Pollution Control District Rule 55 for reducing construction fugitive dust emissions, the use of watering (two times daily), a speed limit of 15 miles per hour (MPH) for off-road vehicles, and the daily cleaning of mud and dirt track out onto city streets to minimize dust was assumed in modeling.

**Table 3.4-3
MAXIMUM ANTICIPATED CONSTRUCTION EQUIPMENT AND TRUCK TRIPS**

Construction Phase	Approximate Duration	Equipment ¹	Truck Trips
Sidewalk Demolition	4 months	6 Concrete/Industrial Saws 2 Tractors/Loaders/Backhoes/Skid-steers	12 per week (debris hauling)
Building/Roadway Demolition	1 month	6 Concrete/Industrial Saw 1 Rubber Tired Dozer 2 Tractors/Loaders/Backhoes/Skid-steers 1 All-terrain Scissor Lift	12 per week (debris hauling)
Building Construction	14 months	1 Crane 2 Forklifts 2 Tractors/Loaders/Backhoes/Skid-steers 1 All-terrain Scissor Lift, 1 Welding Machine	24 per week (deliveries and trash)
Paving/Sidewalk Construction	3 months	4 Cement and Mortar Mixers 1 Paver (2 weeks only) 1 Roller (2 weeks only) 1 Tractor/Loader/Backhoe/Skid-steers 1 Concrete Pump	16 per week (deliveries and trash)
Architectural Finishes	4 months	2 Forklifts 2 Tractors/Loaders/Backhoes/Skid-steers 1 Air Compressor	8 per week (deliveries and trash)
Total Duration	26 months		

Source: Hensel Phelps 2018

¹ Construction equipment for emissions modeling only includes diesel or gasoline powered off road equipment.

Construction Greenhouse Gas Emissions

Global warming potential (GWP) is a relative measure of how much heat a GHG traps in the atmosphere. It compares the amount of heat trapped by a certain mass of the gas in question to the amount of heat trapped by a similar mass of CO₂. A GWP is calculated over a specific time interval, commonly 100 years. GWP is expressed as a factor of CO₂ (whose GWP is standardized to 1). CH₄ absorbs 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂ (USEPA 2018e). Estimates of GHG emissions are expressed as carbon dioxide equivalents (CO₂e). For this analysis, only CO₂, CH₄, and N₂O are the only GHGs considered due to the relatively large contribution of these gases in comparison to other GHGs produced during construction of the Action Alternative. GHG emission estimates for the proposed construction activities were estimated using CalEEMod and the specific model inputs and assumptions discussed above.

Impact Thresholds

The General Conformity Rule of the CAA (40 CFR §§ 51.850-860 and 40 CFR §§ 93.150-160) establishes *de minimis* thresholds, which are emissions thresholds established by the USEPA for criteria air pollutant emissions caused by federally sponsored, approved, or funded activities in areas that do not meet the NAAQS thresholds. The *de minimis* threshold established for each pollutant varies by the severity of nonattainment, and sets an emission level, in tons per year, above which further analysis is required to demonstrate that the proposed activities would not cause or contribute to a violation of a NAAQS for a nonattainment pollutant.

The SDAB is currently classified as a moderate nonattainment area for the 8-hour ozone standard, and a maintenance area for CO standards. Concentrations of SO₂, PM₁₀, PM_{2.5}, and Pb are classified as attainment or unclassifiable. Within the SDAB, if net annual emissions remain below 100 tons of CO, 100 tons of VOCs, and 100 tons of NO_x, impacts would not be considered adverse and no formal CAA conformity determination would be required. Although the SDAB has not been designated as nonattainment or maintenance for PM₁₀ or PM_{2.5}, for this NEPA review, a *de minimis* threshold value of 100 annual tons of PM₁₀ or PM_{2.5} is used to determine the severity of impacts for particulates.

As described in Section 3.4.1.3, for the GHGRP requires mandatory reporting of GHGs from sources that emit 25,000 MT or more of CO₂e per year (USEPA 2013). Although construction activities are not specifically included in the GHGRP, the 25,000 MT of CO₂e per year is used in this analysis as a reference point to measure the potential severity of potential GHG effects.

3.4.3 Environmental Consequences

Action Alternative

Criteria Pollutants – Construction Impacts

Construction activity is a source of dust and exhaust emissions that can have substantial temporary impacts on local air quality (i.e., exceed the NAAQS for ozone, CO, PM₁₀, and PM_{2.5}). Temporary construction emissions would result from processes related to demolition, building construction, sidewalk construction, paving, and the application of architectural finishes. Pollutant emissions would vary daily, depending on the level of activity, specific operations, and prevailing weather. It is anticipated that construction activities would begin in Fall 2019 and last approximately 26 months.

During construction, short-term degradation of air quality may occur due to the operation of diesel or gasoline powered construction equipment, and due to the release of particulate emissions (airborne dust PM₁₀ and PM_{2.5}) generated by demolition and ground disturbance. Heavy trucks and construction equipment powered by diesel and gasoline engines would generate exhaust emissions including CO, SO₂, NO_x, VOCs, PM₁₀, and PM_{2.5}. These emissions would be temporary and cease once construction is completed.

Table 3.4-4, *Annual Construction Emissions of Criteria Air Pollutants*, summarizes the annual criteria pollutant emissions associated with the Action Alternative construction activities and the *de minimis* thresholds. Maximum emissions were determined by totaling the annual emissions from all construction activity. As shown in Table 3.4-4, emissions generated during construction of the Action Alternative would not exceed the federal *de minimis* thresholds for VOC, NO_x, CO, PM₁₀, or PM_{2.5} and no adverse impacts would occur.

**Table 3.4-4
ANNUAL CONSTRUCTION EMISSIONS OF CRITERIA AIR POLLUTANTS**

Construction Activity	Total Emissions (Tons per Year)				
	VOC	NO _x	CO	PM ₁₀	PM _{2.5}
2019 Total Emissions	0.2	2.0	1.9	0.2	0.1
2020 Total Emissions	0.2	1.6	1.3	0.1	<0.1
2021 Total Emissions	<0.1	0.2	0.2	<0.1	<0.1
Maximum Annual Emissions	0.2	2.0	1.9	0.2	0.2
<i>De Minimis</i> Level	100	100	100	100	100
Exceeds Threshold?	No	No	No	No	No

Source: CalEEMod version 2016.3.2, see Appendix D for model outputs.

Note: Although the anticipated construction start date has changed from March 2019 to Fall 2019 with an associated shift in the construction schedule and, therefore, total annual criteria air pollutant emissions for each year of construction, maximum annual emissions would still be well below the *de minimis* level and criteria pollutant thresholds would not be exceeded.

Criteria Pollutants – Operational Impacts

The Action Alternative consists of the construction of structural enhancements to the existing Schwartz FOB and pedestrian walkways. No new uses are proposed that would increase existing traffic or introduce new stationary sources of criteria pollutants once construction is complete. Therefore, long-term operation of the Proposed Action would not result in changes in local or regional emissions compared to existing conditions (or the No Action Alternative) and no adverse effects would occur.

Air Quality Conformity

As shown Table, 3.4-4, above, the Action Alternative emissions would be below the General Conformity *de minimis* limits. Therefore, the Action Alternative would be in conformance with the CAA and no further conformity analysis is required.

Hazardous Air Pollutants

Construction – Diesel Particulate Matter

The Action Alternative construction activities would result in the generation of DPM emissions from the use of off-road diesel equipment. Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated cancer risk. The primary factor used to determine health risk is a function of concentration and duration of exposure. Current methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. The USEPA has published regulations for the control of emissions from new and in-use off-road diesel engines (40 CFR part 1039). All new off-road diesel equipment sold in the U.S. since 2012 has been required to conform to the USEPA Tier 4 engine emissions standards, which reduce DPM emissions by a minimum of 90 percent for engines above 25 horsepower (USEPA 2016). In addition, CARB has published regulations for off-road diesel fleets (e.g., all diesel vehicles operated by a licensed contractor) in California. The regulations require fleets to reduce their emissions in increments annually by retiring, replacing, or repowering older off-road equipment, or installing certified exhaust retrofits (CARB 2016). Therefore, due to the short-term and intermittent nature of the construction activities, as

well as assumed reductions in emissions resulting from federal and state regulations, DPM emissions generated during construction of the Action Alternative would have no adverse effects.

Construction – Localized Carbon Monoxide

The Action Alternative construction activities would result in an increase in mobile-source CO from worker and delivery vehicles, and from construction-related traffic congestion. Transport of this criteria pollutant is extremely limited; CO disperses rapidly with distance from the source under normal meteorological conditions. Under certain meteorological conditions, however, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Areas of high CO concentrations, or “hot spots,” are typically associated with high volume intersections that are projected to operate at unacceptable levels of service during the peak commute hours (e.g., LOS E or F).¹ According to the traffic impact analysis completed for the Proposed Action (Rick Engineering 2018), no intersection affected by the Proposed Action would operate at LOS E or F during construction activities. Once construction activities are complete, traffic patterns in Proposed Action area would return to existing conditions. Therefore, mobile-source CO emissions resulting from the Action Alternative construction activities would have no adverse effects.

Construction – Asbestos Containing Material

An asbestos survey was completed for the building which found some interior floor tiles, interior spray-applied ceiling material, and exterior roof mastic to be ACMs (Jonas & Associates 2005). All discovered ACMs were determined to be non-friable and in good condition. Other than the roof mastic, no exterior building materials were determined to be ACMs. As noted in Section 2.1.1, the Action Alternative activities would be limited to exterior demolition and would not result in the disturbance of the identified ACMs identified in the survey. Therefore, the Action Alternative demolition activities would have no adverse effects related to ACMs.

Greenhouse Gas Impacts

Construction Emissions

Action Alternative construction activities would result in GHG emissions from the combustion of fossil fuels in construction equipment, worker vehicles, delivery vehicles, and haul trucks. Construction GHG emissions were estimated using CalEEMod. Table 3.4-5, *Annual GHG Construction Emissions*, summarizes the GHG emissions resulting from construction activities for each year of construction.

¹ Level of service is a measure to determine the effectiveness of transportation infrastructure. LOS is most commonly used to analyze intersections by categorizing traffic flow with corresponding safe driving conditions. LOS A is considered the most efficient level of service and LOS F the least efficient.

**Table 3.4-5
ANNUAL GHG CONSTRUCTION EMISSIONS**

Construction Activity	Emissions (MT/Year)			
	CO ₂	CH ₄	N ₂ O	Total CO ₂ e
2019 Total Emissions	322	<1	0	324
2020 Total Emissions	265	<1	0	267
2021 Total Emissions	37	<1	0	38
Maximum Annual Construction Emissions	322	<1	0	324
Screening Reference Level				25,000
Exceed Reference Level?				No

Source: CalEEMod version 12016.3.2; see Appendix D for model outputs.

Notes: Numbers rounded to whole number - if a non-zero value was less than 1.0, <1 was utilized. MT= metric ton

As shown in Table 3.4-5, the maximum annual GHG construction emissions generated during construction of the Action Alternative would be approximately 324 MT CO₂e, which would not exceed the federal annual screening reference level of 25,000 MT. Therefore, GHG emissions from construction of the Action Alternative would not have an adverse effect.

Operational Emissions

As noted above for construction air pollutant emissions, the Action Alternative consists of the construction of structural enhancements to the existing Schwartz FOB and pedestrian walkways. No new uses are proposed that would increase existing traffic or introduce new stationary sources of GHGs once construction is complete. Therefore, long-term operation of the Proposed Action would not result in adverse effects related to operational GHG emissions.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. There would be no adverse air quality or GHG emission effects.

3.4.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative

Because no substantial adverse air quality or GHG emissions impacts would result from implementation of the Action Alternative, no avoidance, minimization, or mitigation measures are required. As noted in Table 2-1, the Action Alternative would comply with applicable regulatory requirements of the San Diego Air Pollution Control District and standard measures to reduce construction air quality and GHG emissions.

No Action Alternative

No project action would occur under the No Action Alternative, so no avoidance, minimization, or mitigation measures would be required.

3.5 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

3.5.1 Action Alternative

Implementation of the Action Alternative would involve a commitment of a range of natural, physical, human, and fiscal resources. Proposed activities include the demolition of existing structural materials and sidewalk and construction of new structural enhancements within the Front Street underpass of the Schwartz FOB. Fossil fuels, labor, and construction materials such as steel, plaster, cement, and aggregate would be expended in demolition and construction activities. Additionally, labor and natural resources would be used in the making of construction materials. These materials are generally not retrievable. However, they are not in short supply and their use would not have an adverse effect upon continued availability of these resources.

Implementation of the Action Alternative would require a one-time expenditure of federal funds, which are not retrievable; however, maintenance costs would be minimal. The safety benefits of implementing the Action Alternative are expected to outweigh the commitment of these resources.

3.5.2 No Action Alternative

The No Action Alternative would not require irreversible and irretrievable commitments of resources.

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3.6 CUMULATIVE IMPACTS

This chapter evaluates potential secondary and cumulative effects of the Proposed Action. Secondary effects are defined by the CEQ as those impacts that are caused by an action and occur later in time, or are farther removed in distance but are still reasonably foreseeable after the action has been completed (40 CFR 1508.8). They can include changes in land use, economic vitality, and population density. Cumulative effects are the combined impacts on the environment that result from the incremental effect of the proposed action when added to past, present, and reasonably foreseeable future actions within the immediate vicinity of the project area (40 CFR 1508.7).

3.6.1 Regulatory Setting

CEQ regulations implementing NEPA require federal agencies to analyze cumulative effects of their actions on the environment. In accordance with 40 CFR, Section 1508.7 of the CEQ Regulations, cumulative impacts are defined as:

The impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such other actions.

Cumulative impacts can result from individually minor, but collectively substantial impacts taking place over a period of time. Cumulative impacts on resources in the Proposed Action area may result from the impacts of the Proposed Action together with other past, present, and reasonably foreseeable projects, such as residential, commercial, industrial, and other development. These land use activities may result in cumulative effects on a variety of natural resources, such as species and their habitats, water resources, and air quality. They also can contribute to cumulative impacts on the urban environment, such as changes in community character, traffic patterns, noise, housing availability, and employment.

3.6.2 Affected Environment

Cumulative Projects

Cumulative projects in the Proposed Action study area (the DCP Area identified in Figure 3.1-1) are identified in Appendix B, which provides a table of the recently approved, pending, planned, or otherwise reasonably foreseeable future public and private development projects within the study area. Information on these projects was obtained from the Civic San Diego¹ Downtown Development Status Log for July 2018. Refer to Figure 3.1-3 for the location of these identified cumulative projects.

As shown in Appendix B and summarized in Subchapter 3.1, *Land Use and Community Issues*, 62 projects are underway in the DCP Area, totaling 11,472 residential units, 561,000 square feet of retail space, 1,994,000 square feet of office space, 3,347 hotel rooms, 380 public parking spaces, and San Diego Downtown Mobility Plan roadway improvements. In addition, Table 3.1-2 identifies 12 planned parks in the DCP Area.

¹ Civic San Diego is a non-profit public benefit corporation created by the City of San Diego to engage in economic development, land use permitting and services within the DCP, and project management services.

Cumulative Study Areas

The area of cumulative effect varies depending on the resource issue analyzed. The cumulative study area for land use and community issues is the socioeconomic study area identified in Subchapter 3.1 and depicted in Figure 3.1-1. The cumulative traffic study area includes roadway segments and intersections that are likely to be affected by the Proposed Action as identified in Subchapter 3.2, as well as the entire DCP Area. For noise, the cumulative study area is limited to the areas immediately adjacent to the Proposed Action site, since noise attenuates with distance and only has the potential to combine with other noise sources in the immediate vicinity. For air quality impacts related to criteria air pollutants, the cumulative study area is the SDAB. For HAPs, the area of cumulative effect is the Proposed Action study area. The cumulative GHG study area encompasses the global atmosphere.

3.6.3 Environmental Consequences

Land Use and Community Issues

Action Alternative

Land use and community issues are specific to an affected population or community. The DCP Area is almost entirely urbanized and little vacant developable land remains. Subchapter 3.1 concluded that no adverse land use impacts would occur with implementation of the Proposed Action Alternative because of consistency with applicable land use plans and existing and planned land uses in the DCP Area. Presumably, all cumulative projects in the DCP Area also would be designed to be consistent with all relevant local, state, and federal plans and policies, or could require plan amendments to avoid or mitigate potential impacts. Overall, no associated adverse cumulative land use impacts would be anticipated.

Although the DCP Area contains environmental justice populations (i.e., low-income and/or minority populations), as discussed in Subchapter 3.1, the area immediately surrounding the Proposed Action site is not an area with a disproportionately high minority or low income population, and potential impacts of the Action Alternative would not fall on environmental justice populations. In addition, although each individual neighborhood in the DCP Area has its own distinct character, the DCP Area in general and the area surrounding the Proposed Action site would not be considered a strongly cohesive community based on demographics.

Furthermore, development trends in the DCP Area have not created new physical divisions in the community. Some of the projects identified in Appendix B include affordable housing, and all consist of urban development that is compatible with the existing surrounding urbanized character, such as housing, mixed-use, and office developments at densities and scale that is generally consistent with existing surrounding development. It is not anticipated that construction activities of cumulative projects would substantially interrupt utility services, and the needs of emergency service providers would be accommodated in all cases. The land use and community resource status is evaluated as stable in the DCP Area.

As discussed in Chapter 2.0, the Proposed Action would modify the existing Schwartz FOB, and would retain and enhance pedestrian and vehicle facilities. As analyzed in Subchapter 3.1, the Action Alternative would not change land uses or facility types, and would not further divide established communities beyond the existing condition. On the contrary, it would improve safety for the public traveling underneath the existing building and for the tenants occupying the building above the

Front Street underpass. The Action Alternative would not result in right-of-way acquisition or displacement impacts to residences and/or businesses, and would not result in adverse impacts to parking, long-term community access, property values, or employment.

Construction impacts related to access and diversion of traffic would be temporary and short term and would not substantially impact the DCP Area community, as discussed under *Traffic and Transportation/Pedestrian and Bicycle Facilities*, below.

The Action Alternative, in combination with the identified cumulative projects, would not contribute to adverse cumulative impacts on land use or community issues.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not affect land use, parking, access, property values, employment, or the character or degree of cohesion of the surrounding community. Although other cumulative projects would be implemented, the No Action Alternative would not contribute to cumulative impacts associated with land use or community issues.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Action Alternative

As described in the Final EIR for the Downtown Community Plan, increased traffic volumes associated with buildout of the DCP Area is expected to result in increased congestion on some downtown roadways, resulting in significant and unmitigable cumulative traffic impacts (Centre City Development Corporation 2006). Several of the cumulative development projects identified in Appendix B have the potential to contribute to these substantial cumulative traffic impacts. Subchapter 3.2, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, outlines the existing and future traffic conditions in the traffic study area and the temporary traffic effects that may occur during construction of the Action Alternative. Post-construction traffic, transit, pedestrian, and bicycle impacts would be beneficial, since the Action Alternative would consist of structural enhancements to an existing building and would not change the existing street configuration or operations, but would improve safety. During both full and partial closure of Front Street during construction of the Action Alternative, traffic operations would not degrade substantially compared to existing conditions. An option to convert one lane along 1st Avenue for southbound travel to provide access for fire and rescue vehicles and MTS buses during full closure of Front Street from E Street to F Street was assessed in Subchapter 3.2; if implemented, the intersection of Broadway and Front Street would operate at LOS F and result in an increase in delay of approximately one minute compared to existing conditions. Potential impacts associated with temporary detours or diversion of traffic would be minimized through implementation of a Traffic Control Plan, which would provide additional measures to reduce construction-related traffic impacts. Given the temporary nature of the traffic diversions, and the implementation of a Traffic Control Plan, adverse traffic impacts during construction of the Action Alternative would not be substantial. Cumulative effects also would be limited to construction period traffic detours and lane closures of the cumulative projects identified in Appendix B, in combination with the Action Alternative. To the extent that construction periods overlap, there is a potential for cumulative traffic impacts from multiple project detours and lane reductions occurring simultaneously, potentially resulting in deterioration of traffic operations on study area roadways. GSA would coordinate the timing of project detours and lane closures with the City in order

to minimize cumulative traffic impacts. A Traffic Control Permit would be obtained from the City prior to implementation of the Action Alternative. Consequently, cumulative traffic effects of the Action Alternative would be mitigated through planning and design in coordination with the City. Thus, although the implementation of cumulative projects listed in Appendix B and future projects contemplated in the DCP are anticipated to result in substantial and unmitigable traffic impacts in the long term, the Action Alternative would not contribute to these impacts.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities or traffic detours would occur. Retaining the existing Schwartz FOB as is would not result in cumulative traffic, transit, pedestrian and bicycle impacts.

Noise and Vibration

Action Alternative

Potential cumulative noise impacts associated with the Action Alternative are limited to temporary construction noise, since no new operational noise sources are proposed. Construction equipment would generally be audible in the immediate vicinity of the construction activities. Due to the urban nature of the Proposed Action site and surroundings, noise from construction activity would be impeded by the Schwartz FOB and nearby buildings. As a result, the cumulative study area for noise is limited to the areas directly surrounding the noise-generating construction activities. As shown on Figure 3.1-3, none of the identified cumulative projects are located within the immediate vicinity of the Proposed Action site; the nearest cumulative project is located about 1,200 feet to the northeast. Subchapter 3.3, *Noise and Vibration*, concluded that no substantial adverse noise or vibration impacts would occur during construction of the Action Alternative, since average construction noise levels would not exceed the City standard of 75 dBA L_{EQ} (1-hour) at nearby properties and no equipment that generates substantial vibration would be utilized. Standard construction BMPs would be implemented to further reduce noise and vibration effects during construction. Because none of the cumulative projects are located close enough to the Proposed Action site to contribute to cumulative noise impacts, and no substantial adverse cumulative construction noise or vibration impacts would result from implementation of the Action Alternative, the Action Alternative would not result in adverse cumulative noise or vibration impacts.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. Retaining the existing Schwartz FOB as is would not result in cumulative noise and vibration impacts.

Air Quality and Greenhouse Gas Emissions

Action Alternative

Criteria Air Pollutants – Construction Impacts

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the SDAB. Thus, this regional impact is a cumulative impact, and projects would contribute to this impact on a cumulative basis. Therefore, if the Action Alternative's emissions are below the *de minimis* levels for determining CAA General Conformity (see Subchapter 3.4, *Air Quality and Greenhouse Gas Emissions*), the Action Alternative would not result in adverse cumulative air quality impacts. Long-term operational emissions of criteria pollutants generated by Action Alternative would be negligible as no new sources or increase in existing sources of emissions would occur. As shown in Table 3.4-4, *Annual Construction Emissions*, emissions generated during construction of the Action Alternative would not exceed the federal *de minimis* threshold of 100 tons per year for VOC, NO_x, CO, PM₁₀, or PM_{2.5} and the Action Alternative would not result in adverse cumulative air quality impacts.

Hazardous Air Pollutants – Construction Impacts

Adverse effects from HAPs are largely associated with localized concentrations. Emissions of DPM from construction equipment on the Action Alternative site could combine with DPM emissions from other nearby construction projects to result in increased concentrations. In normal meteorological conditions, HAPs disperse rapidly with distance. For example, studies of California freeways indicate that DPM concentrations drop by 70 percent at a distance of 500 feet (CARB 2005). As shown on Figure 3.1-3, the nearest cumulative project is located approximately 1,200 feet to the northeast. Therefore, due to the temporary and intermittent nature of construction emissions, and due to the distance to the nearest cumulative project, the project's DPM emissions would not result in adverse cumulative impacts.

Greenhouse Gas Emissions Impacts

By nature, GHG impacts are cumulative as they are the result of combined worldwide emissions over many years, and additional development would incrementally contribute to the significant adverse environmental impacts of global climate change. No single project could generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the combination of GHG emissions from past, present, and future projects contribute substantially to the phenomenon of global climate change and its associated environmental impacts. Therefore, GHG emissions impacts are only evaluated cumulatively.

As discussed in Subchapter 3.4, annual GHG construction emissions of the Action Alternative would not exceed the federal annual screening criteria of 25,000 metric tons of CO₂e (refer to Table 3.4-5). Long-term operational emissions of GHGs generated by Action Alternative would be negligible as no new sources or increase in existing sources of emissions would occur. Consequently, the Action Alternative would not result in adverse cumulative GHG emissions impacts.

No Action Alternative

Under the No Action Alternative, the proposed structural enhancements would not be implemented, the existing building would remain in its current condition, and no temporary construction activities would occur. There would be no adverse cumulative air quality or GHG emission impacts.

3.6.4 Avoidance, Minimization, and/or Mitigation Measures

Action Alternative

Because no substantial adverse cumulative impacts would result from implementation of the Action Alternative, no avoidance, minimization, or mitigation measures are required. Construction BMPs identified in Table 2-1 would be implemented to further reduce potential traffic, noise and vibration, and air quality and GHG emissions effects during construction of the Action Alternative.

No Action Alternative

No avoidance, minimization, or mitigation measures would be required under the No Action Alternative and no adverse cumulative impacts would result.

4.0 PUBLIC INVOLVEMENT AND COORDINATION

Early and continuing coordination with public agencies and community stakeholders is an essential part of the environmental process to determine the scope and content of environmental documentation; the level of analysis; potential impacts; avoidance, minimization and mitigation measures; and related environmental requirements. Agency consultation and public participation for the Proposed Action have been accomplished through a variety of formal and informal methods, including interagency coordination and the public scoping process. This chapter summarizes the results of GSA's efforts to identify, address, and resolve Project-related issues through early and continuing consultation.

4.1 PUBLIC SCOPING PROCESS

4.1.1 Notice of Intent

Pursuant to NEPA, an NOI was prepared for the Proposed Action and published in Vol. 83, No. 180 of the *Federal Register* on Monday, September 17, 2018. The NOI invited agencies and the public to submit comments regarding the scope of the EA. Scoping for the Proposed Action was accomplished through direct mail correspondence to the appropriate federal, state, and local agencies; surrounding property owners; and private organizations and citizens who have previously expressed or are known to have interest in the Proposed Action.

During the public comment period for the scoping process (September 17, 2018 through October 19, 2018), comments were received from the City of San Diego and two individuals, Shawn Hibbets and Stacey Kartagener. The NOI and full comments as submitted are included in Appendix A to this EA. Comments from the City focused on information and approvals related to potential changes in stormwater infrastructure and the Traffic Control Plan. The City also emphasized ongoing coordination with GSA, which is discussed in further detail below in Section 4.2. Comments from Shawn Hibbets, who represents LAZ Parking located at 757 Union Street south of the Proposed Action site, focused on maintaining access to the parking garage from Front Street. Comments from Stacey Kartagener concerned availability of a rental unit within the area, which is beyond the scope of this EA but included as part of the public record.

4.2 CONSULTATION AND COORDINATION WITH PUBLIC AGENCIES

Consultation and coordination with the City has been ongoing since July 2017 and has included nine meetings to date. Specifically, the GSA and U.S. District Court and Marshals Service have met with several City departments (including Development Services, Transportation and Storm Water, Fire, Public Works, and Neighborhood Services) to discuss the details of the Proposed Action. The primary topic discussed at these meetings involved temporary impacts to traffic resulting from closure of Front Street during construction. Specifically, it was discussed if the construction schedule would involve a complete and full closure, versus a partial closure of Front Street, and how daily traffic would be accommodated in either scenario. The GSA explained that full closure is preferred due to safety, budget, and schedule concerns while the City explained that full closure might interfere with other offices and businesses in the area, several large events at the Convention Center, emergency access for fire and police, pedestrian access, and negative public perception if there are days where no construction occurs. There were

remarks of combining the two closure methods, with full closure occurring when necessary for safety reasons and partial closure at other times. The City noted that emergency vehicles should be permitted through the site throughout the duration of construction and that coordination with the fire and police departments would be necessary.

Other discussion topics included potential trolley and bus conflicts, using a changeable message sign on I-5 to notify motorists of the road closure, the need to close both pedestrian walkways along Front Street during construction for safety reasons, the inability for the City to adjust downtown traffic signals as they are timed on a 70-second cycle and cannot be modified for construction traffic, a new fire station that is being planned in the area, and a new childcare center that recently moved into the Schwartz FOB.

4.3 PUBLIC PARTICIPATION

In addition to the public scoping process and publishing the NOI in the Federal Register, GSA also provides information on the Proposed Action on their website at: <https://www.gsa.gov/about-us/regions/welcome-to-the-pacific-rim-region-9/buildings-and-facilities/california/edward-j-schwartz-federal-office-building#CurrentProjects>.

The Draft EA was made publicly available on November 16, 2018 for a 30-day period. The public review period closed on December 17, 2018. The Notice of Availability for the Draft EA was published in the Federal Register on November 16, 2018.

A public meeting took place on November 28, 2018 in the Downtown San Diego community to discuss the Draft EA in an open house-style format. Each station had one or more presentation boards with descriptive images related to the station topic. Each station included knowledgeable staff members to present information and answer questions related to their area of expertise. Individuals from the public were encouraged to sign in, receive information on the Proposed Action, visit the topic-specific stations, and submit written comments; no written comments were received.

4.4 PUBLIC COMMENTS ON THE DRAFT EA

During the public comment period, two comment letters were received from the following agencies:

- City of San Diego
- Metropolitan Transit System

A copy of the comment letters and GSA's responses to each comment are provided in the following pages. The letters are reprinted on the left side, with each specific comment bracketed and numbered in the left-hand margin, and correspondingly numbered responses to each comment on the right-hand side.



December 19, 2018

Osmahn Kadri
Regional Environmental Quality Advisor/NEPA Project Manager
General Services Administration, Pacific Rim Region
50 United Nations Plaza, Room 3345, Mailbox 9
San Francisco, CA 94102

Subject: CITY OF SAN DIEGO COMMENTS ON THE SCHWARTZ FEDERAL BUILDING STRUCTURAL ENHANCEMENTS PROJECT DRAFT ENVIRONMENTAL ASSESSMENT

Dear Mr. Kadri:

The City of San Diego ("City") Planning Department has received the Draft Environmental Assessment (EA) prepared by the General Services Administration (GSA) and distributed it to applicable City departments for review. The City, as the land use jurisdiction for the location of this project, has reviewed the Draft EA and appreciates this opportunity to provide comments to the GSA. We appreciate the opportunity for Continued coordination between the City and the GSA. In response to this request for public comments, the City has the following comments on the Draft EA for your consideration.

**TRANSPORTATION AND STORM WATER DEPARTMENT – STORM WATER DIVISION
MARK STEPHENS, ASSOCIATE PLANNER – MGStephens@sandiego.gov, 858-541-4361**

A-1 [Based on the project scope of work, please provide a copy of applicable construction best management practice (BMP) plans as determined through the disturbance area involved to the City's Transportation & Storm Water Department, Storm Water Division. Disturbance areas one acre or greater will require a Storm Water Pollution Prevention Plan (SWPPP). Disturbance areas less than one acre will require a Water Pollution Control Plan (WPCP).

**DEVELOPMENT SERVICES DEPARTMENT – ENGINEERING DIVISION
EDD ALBERTO, TE, PROGRAM MANAGER – AlbertoE@sandiego.gov, 619-446-5416**

- A-2 [The proposed detour route is directing traffic to the intersection of Columbia St./B St., which is a stop controlled intersection. The analysis does not address impacts at this intersection.
- A-3 [The existing peak hour westbound left turn at Broadway/Front St. is proposed to be detoured to Broadway/State St.; the left turn pocket at this intersection is undersized to accommodate this volume of left turns creating queues on Broadway. Capacity and ability to turn should be evaluated for buses (both standard and articulated) as well as delivery trucks.

9485 Aero Drive, MS 413
San Diego, CA 92123
sandiego.gov/planning/

T (619) 235-5200
sandiego.gov

City of San Diego (City)

- A-1 A copy of applicable construction best management practices (BMPs) will be provided to the City's Transportation & Storm Water Department, Storm Water Division. It is anticipated that the Proposed Action would result in less than 5,000 square feet (sf) of ground disturbance and there is less than a 5-foot elevation differential over the entire Proposed Action area; therefore, per the City's DS-570 form, a Minor Water Pollution Control Plan should be prepared. If it is determined that more than 5,000 sf would be disturbed, a Water Pollution Control Plan would be prepared and submitted to the City for review and approval. Stormwater pollution would be minimized to the maximum extent practicable/feasible during construction of the Proposed Action through implementation of standard construction stormwater BMPs.
- A-2 The study area intersections and roadway segments originally addressed in the Draft EA and Traffic Impact Analysis (TIA) dated May 11, 2018 were determined based on a meeting with City staff on February 15, 2018. Based on this comment letter and subsequent meetings with City staff on February 29 and 30, 2019, the study area has been expanded to include a number of additional intersections and roadway segments, including the intersection of Columbia Street and B Street. As shown in the revised TIA (dated May 31, 2019; Appendix C to this Final EA) and described in Section 3.2, *Traffic and Transportation/Pedestrian and Bicycle Facilities*, of this Final EA, under existing conditions, the intersection of Columbia Street and B Street operates at level of service (LOS) A during the morning (AM) and evening (PM) peak hours (see Table 3.2-5, Intersection 28). Under Option 1 (Closure of Front Street between Broadway and F Street) and Option 2 (Closure of one lane of traffic along Front Street between Broadway and F Street), the intersection of Columbia Street and B Street would continue to operate at LOS A during the AM and PM peak hours (see Table 3.2-7, Intersection 28).

Page 2
Mr. Osmahn Kadri
December 19, 2018

- A-4 • Roadway segments were analyzed for ADTs; traffic in Downtown is concentrated around the peak hour. What level of service do the roadway segments operate in the peak hours?
- A-5 • It is unclear how the trolley crossings were analyzed and what the impacts to trolley service are. Please provide additional analysis.
- A-6 • Impacts to pedestrian access and ADA accommodations should be addressed as well as the duration of the impacts.
- A-7 • Exhibit 7 of the TIA shows westbound left turns on Broadway being redistributed to 6th Avenue and to 4th Avenue, where left turn movements are prohibited.
- A-8 • The TIA does not consider special event situations with street closures that would potentially impact the proposed detour routes.
- A-9 • Coordination with other construction projects in the Downtown area should be addressed along detour routes. The Downtown Mobility Plan has several planned bike projects throughout the area that may impact detour routes, particularly 6th Avenue, which is planned for construction September 2019–August 2020.
- A-10 • Providing multiple detours is confusing for motorists, even with the assumption that all visitors downtown will adjust to the closure and follow detours or find alternate routes. The closure will impact visitors not accustomed to Downtown such as jurors, tourists, and after-hours visitors during Friday and Saturday evening peak hours.
- A-11 • The project should be coordinated with emergency services and MTS.

Thank you for the opportunity to provide comments on the Draft EA. Please feel free to contact Rebecca Malone, Senior Planner, directly via email at RMalone@sandiego.gov or by phone at 619-446-5371 if there are any questions regarding the contents of this letter or if the GSA would like to meet with City staff to further discuss our comments.

Sincerely,



Heidi Vonblum, Program Manager
Planning Department

RM/rm

cc: Reviewing Departments (via email)
Review and Comment online file

A-3 The analysis presented in the TIA indicates that the intersection of Broadway and Front Street is currently operating at acceptable LOS D during AM peak hours and LOS F during PM peak hours. It is anticipated that unacceptable LOS and queuing would continue to exist during construction of the Proposed Action. Metropolitan Transit System (MTS) buses that travel along Broadway do not make southbound left turns in the vicinity of the Proposed Action site. As part of the proposed detours, MTS bus routes traveling southbound on Front Street would make a left turn at E Street and a left at 1st Avenue. Bus stops that may be affected by the traffic control plan would be temporarily relocated. A discussion of this has been added to page 7 of the revised TIA (refer to Appendix C).

A-4 Based on this comment and discussions with City staff, a peak hour roadway segment analysis has been added to the revised TIA to address vehicular traffic conditions during peak traffic periods of 7:00 a.m. to 9:00 a.m. (the morning/AM peak period) and 4:00 p.m. to 6:00 p.m. (the evening/PM peak period). This analysis has been added to Section 3.2 of this Final EA. Existing peak hour roadway segment operations are presented in Table 3.2-4, while a comparison of existing conditions to the full and partial closure of Front Street during construction of the Action Alternative is presented in Table 3.2-6. As shown in Table 3.2-6 and addressed in the corresponding discussion in Section 3.2.3, the majority of the study area segments would operate at LOS D or better during the AM and PM peak hours, and a number of roadway segments would continue to operate at LOS E and F similarly to existing conditions. During full closure of Front Street, the LOS of three roadway segments (southbound 4th Avenue from E Street to F Street, westbound Broadway from Union Street to Front Street, and eastbound Harbor Drive from Kettner Boulevard to Market Street) would be reduced from LOS D to LOS E during the AM or PM peak hours. During partial closure of Front Street, the LOS of two roadway segments (westbound Broadway west of 4th Avenue and eastbound E Street from Front Street to 1st Avenue) would be reduced from LOS D to LOS E during the PM peak hour. The reduction in LOS and associated increased congestion experienced at these roadway segments during construction of the Action Alternative would be temporary; once each phase of construction is complete, traffic operations at these intersections would revert to the existing condition.

A-5 A discussion of potential impacts to transit facilities is included under the heading “Transit Facility Impacts” starting on page 3.2-29 of this Final EA. As stated therein, no trolley stations or crossings are located within or adjacent to the Proposed Action site. Construction of the Proposed Action would not directly interrupt trolley

A-5 (cont.) service routes or impede access to nearby stations. The revised TIA includes a new microsimulation analysis conducted using VISSIM software that analyzes intersections that are signalized and affected by the trolley and/or train. During full closure of Front Street, all intersections are shown to continue to operate at LOS D or better during the PM peak hour, with the exception of the intersection of Broadway and Pacific Highway, which would operate at LOS E with more than a minute delay per vehicle (refer to Table 3.2-8 of this Final EA). As discussed, although there is a possibility that vehicles may experience additional delays at at-grade trolley crossings in the Proposed Action study area during peak hours due to priority being given to the trolley at signalized intersections, transit officials from MTS indicated that in the Downtown area, trolleys operate on a regular schedule independently of roadway conditions and would not be affected by changing traffic conditions along detour routes during construction. Thus, the Action Alternative would not affect trolley services or facilities.

A-6 A discussion of potential impacts to pedestrian facilities is included under the heading “Pedestrian and Bicycle Facility Impacts” starting on page 3.2-28 of this Final EA. As noted, pedestrian access through the Proposed Action site would be temporarily restricted during the construction period; existing sidewalks within the underpass would be closed during construction, but replaced after construction is complete. In response to this comment, the approximate total duration of the construction period, 26 months, has been reiterated in this section in the Final EA. Detours and alternative pedestrian routes would be available nearby, and a temporary crosswalk would be placed to the north of the existing crosswalk at E Street to allow public access between the western and eastern sides of Front Street during construction. A basic requirement of work zone traffic control is that the needs of pedestrians, including those with disabilities, must be addressed in temporary traffic control plans in accordance with the Americans with Disabilities Act of 1990 (ADA), Title II, Paragraph 35.130. Page 3.2-28 of this Final EA has been revised as follows, with insertions underlined, to address compliance with ADA standards during construction of the temporary pedestrian facilities:

Although pedestrian access through the Proposed Action site would be temporarily restricted during the construction period (approximately 26 months), detours and alternative pedestrian routes would be available nearby, and a temporary crosswalk with pedestrian ramps constructed in compliance with the Americans with Disabilities Act of 1990 would be placed to the north of the existing crosswalk at E Street to allow public access between the western and eastern sides of Front Street during construction.

COMMENTS

RESPONSES

	<p>A-6 (cont.) Based on these considerations, no long-term impact to pedestrian facilities would occur.</p> <p>A-7 This error was corrected in the revised Exhibit 8 of the revised TIA. It is now shown as being redistributed to State Street, Pacific Highway, and Kettner Boulevard.</p> <p>A-8 A discussion has been added to the revised TIA as well as Sections 3.2.2 and 3.2.3 of this Final EA to address ongoing/special event situations with street closures occurring in the Downtown area, including potentially along detour route(s) proposed during construction of the Action Alternative. Internet research was conducted in coordination with City staff to identify events with potentially conflicting roadway closures. City staff are expected to provide secondary detours on a case-by-case basis for events that are anticipated to impact detours identified in the Traffic Control Plan prepared for the Proposed Action.</p> <p>A-9 GSA acknowledges that there are ongoing projects occurring in the Downtown area, including potentially along detour route(s) proposed during construction of the Proposed Action that would require additional coordination. As required by the City for projects that encroach into public right-of-way, a Public Right-of-Way Permit for Traffic Control form and Traffic Control Plan would be submitted to the City prior to construction of the Proposed Action. The Traffic Control Plan is being prepared in compliance with the City’s Traffic Control Permit requirements and will identify a detour plan to be implemented during full closure of Front Street. As noted in Section 4.2, <i>Consultation and Coordination with Public Agencies</i>, consultation with the City to discuss temporary construction traffic impacts and Traffic Control Plan requirements has been ongoing since July 2017; preparation of the Traffic Control Plan has been closely coordinated with City staff and will continue through review of the Traffic Control Permit application. Consideration will be given to potential street closures/detours associated with other construction projects occurring within the proposed detour route(s), based upon guidance from City staff. It should also be noted that the San Diego Downtown Mobility Plan has been added to Figure 3.1-3, <i>Cumulative Projects in the Downtown Community Plan Area</i>, as well as the cumulative impacts discussion in Section 3.6 of this Final EA.</p> <p>A-10 As stated in response to comment A-9, the Traffic Control Plan would be prepared in compliance with the City’s Traffic Control Permit requirements and would undergo review and approval by the City prior to the start of construction. As described in Section 2.1.2 of this Final EA, the detour plan would be accomplished by placing portable changeable message signs on Interstate 5 advising drivers of the closure of Front Street at Broadway as well as providing temporary advance</p>
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COMMENTS

RESPONSES

A-10 (cont.) warning signage along detour roadways. Temporary signage would be installed at the intersection of Front Street at Broadway to inform pedestrians and drivers of the closure of Front Street and direct them toward the available detour routes. These measures would be implemented to help reduce potential confusion associated with the closure of Front Street between Broadway and F Street and facilitate navigation of drivers along the proposed detour route(s). Additionally, since most visitors typically use internet applications installed in their cellular phones that provide travel directions towards a destination, it is recommended that, if possible, detour information is coordinated with the most frequently used applications (Google Maps, Waze, Apple Maps, etc.) to help further minimize confusion.

A-11 Coordination with emergency services and MTS has been ongoing throughout the Proposed Action planning process. As a condition of the Traffic Control Permit, the construction contractor would notify the following agencies at least five working days prior to starting construction:

- Police Department
- Fire Department
- City Environmental Services Department
- City Street Division
- San Diego MTS
- Underground Service Alert of Southern California (DigAlert)



1255 Imperial Avenue, Suite 1000
 San Diego, CA 92101-7490
 (619) 231-1466 • FAX (619) 234-3407

December 17, 2018

Mr. Osmahn Kadri
 Regional Environmental Quality Advisor/NEPA Project Manager
 Portfolio Management Division (9PTC)
 U.S. General Services Administration
 50 United Nations Plaza, Room 3345, Mailbox 9
 San Francisco, California, 94102

Via e-mail to: osmahn.kadri@gsa.gov

Dear Mr. Kadri:

SUBJECT: DRAFT ENVIRONMENTAL ASSESSMENT, EDWARD J. SCHWARTZ FEDERAL BUILDING STRUCTURAL ENHANCEMENTS PROJECT

Thank you for the opportunity to review the Draft Environmental Assessment for the Edward J. Schwartz Federal Building Structural Enhancements Project. The San Diego Metropolitan Transit System is the public transit provider for southern San Diego County, and the project as proposed will have a significant impact on our services in Downtown San Diego.

- B-1 [The section of Front Street itself that the U.S. General Services Administration (GSA) proposes to close temporarily for this project is used by MTS Bus Routes 11 and 150, each operating up to 8 buses per hour, seven days a week, over this segment. These routes use standard 40' and extended 60' articulated transit buses. Both routes travel south on Front Street to G Street (Route 150) or Market Street (Route 11), where they turn left, transition one block to First Avenue, then left again to travel back northbound.
- B-2 [The temporary closure presents a significant challenge to MTS operations, in that these routes will need to be detoured and rescheduled, with associated cost and performance impacts. As the only southbound street for a span of six blocks, Front Street is not easily replaced. The two closest alternatives are Fourth Avenue, four blocks east and already traffic-impacted, and State Street, two blocks west and a low-volume, local street with residential uses on the west side. (Union Street is one block away but was recently permanently closed by the new federal courthouse project.)
- B-3 [MTS has the following comments on the proposed Traffic Control Plan (TCP) presented at a meeting with GSA and the City of San Diego on December 11, 2018:



Metropolitan Transit System (MTS) is a California public agency and is comprised of San Diego Transit Corporation and San Diego Trolley, Inc. nonprofit public benefit corporations, in cooperation with Chula Vista Transit and National City Transit. MTS is the taxicab administrator for eight cities and the owner of the San Diego and Arizona Eastern Railway Company. MTS member agencies include: City of Chula Vista, City of Coronado, City of El Cajon, City of Imperial Beach, City of La Mesa, City of Lemon Grove, City of National City, City of Poway, City of San Diego, City of Santee, and the County of San Diego.

Metropolitan Transit System (MTS)

- B-1 A description of the MTS Bus Routes 11 and 150 within the vicinity of the Proposed Action is provided in Final EA Section 3.2.2 under the heading *Existing and Planned Transit Services* (page 3.2-13 of this Final EA).
- B-2 The revised TIA provides an analysis of temporarily converting one travel lane along 1st Avenue between E Street and F Street to southbound to provide an alternate route for MTS buses and emergency service vehicles traveling southbound on Front Street in the vicinity of the Proposed Action. This would be accomplished by placing k-rail and appropriate end protection devices in conjunction with advance warning signage. Temporary signal timing improvements would need to be conducted at the intersections of 1st Avenue/E Street and 1st Avenue/F Street. Currently there are three northbound travel lanes with an ADT of 10,714 and an existing LOS D. As noted on page 49 of the revised TIA (included as Appendix C to this Final EA), reducing the number of northbound travel lanes from three to two would decrease the LOS of this segment to below LOS D. The intersection analysis indicated that all of the project area signalized intersections would continue to operate at LOS D or better under this scenario with the exception of Broadway and Front Street, which would continue to operate at LOS F during the PM peak hour.

GSA and the construction contractor would coordinate with MTS officials and City staff early in preparation for construction of the Proposed Action to determine the appropriate detour options and provide enough time for MTS to redirect Routes 11 and 150 and relocate the existing bus stops that would be affected by the closure of Front Street. Effects to Routes 11 and 150 would be reduced to the extent feasible. It should be noted that there are eleven routes (7, 30, 50, 110, 215, 235, 280, 290, 901, 923, and 992) that travel along Broadway in the vicinity of the Proposed Action site that are anticipated continue to function and not be impacted by the temporary closure of Front Street.

COMMENTS

RESPONSES

B-3
cont.

- 1) Detour routings suggested for Front Street south of Broadway include State Street.
- a. The TCP proposes a temporary dual right turn from southbound Front Street to westbound Broadway:
 - i. This would make it challenging for buses to turn right, as they would encroach on the outside right turn lane when departing the stop at Broadway.
 - ii. A single left turn lane would be very limited in capacity and constrain the ability of the traffic volumes to clear in each signal cycle, negatively impacting the six MTS bus routes that turn left from southbound Front Street onto eastbound Broadway.
 - iii. A preferred solution would be to make a dual left turn here, and restripe for a wider single right turn lane that would accommodate the existing southbound bus stop.

B-4

- b. The left turn pocket from westbound Broadway to southbound State Street is approximately 50' long, leaving very little space for queueing the heavier volumes expected. Further, there is no dedicated left arrow, so realistically only allow 2-3 cars may be able to turn left during each cycle.

B-5

- 2) Detour routings suggested for Front Street north of Broadway include Columbia Street between the A Street/Ash Street couplet and Broadway.
- a. MTS has significant "deadhead" bus operations along A Street and Ash Street that will be negatively impacted by added traffic volumes from the detour movement. Westbound Ash Street is constrained by the at-grade rail crossing west of Kettner Blvd., backing traffic up for several blocks. Eastbound A Street has heavy PM peak volumes as it is the major outlet for traffic accessing Interstate 5 and SR163.

B-6

- b. Columbia Street has a four-way stop at B Street, minimizing the throughput capacity during peak hours.

B-7

MTS requests the following considerations for this project:

- 1) That GSA look for any construction and staging possibilities that would retain at least partial open traffic lanes along Front Street, for both the use of MTS routes as well as reducing the performance impacts on surrounding streets that will cause delays to other MTS services. Night and/or weekend closures as an alternative to a full closure would be far more manageable for our operations.

B-3

A Traffic Control Plan would be prepared to identify detours to be implemented during full closure of Front Street and address temporary effects to study area roadway and intersection operations resulting from the closure. Street closures would be coordinated through the City and other stakeholders such as MTS, and a Traffic Control Permit would be obtained prior to implementation of the Action Alternative. A temporary dual right turn lane is being proposed from southbound Front Street to Broadway as part of the preliminary Traffic Control Plan. Currently, it is anticipated that the easternmost lane of southbound Front Street approaching Broadway would be a through left turn lane; an additional left turn lane cannot be provided at this intersection due to conflicts with through movements.

B-4

The revised TIA acknowledges that there are a number of intersections within the study area that currently have queueing/stacking issues due to the large amount of left turning vehicles and the turn pockets not providing adequate stacking distance (some locations provide approximately 50 feet of stacking length). It is anticipated that the following intersections would continue to have queueing/stacking issues during construction of the Proposed Action:

- Ash Street/Pacific Highway
- Ash Street/Kettner Boulevard
- Ash Street/Columbia Street
- Broadway/Pacific Highway
- Broadway/State Street
- Broadway/Front Street
- Broadway/1st Avenue
- G Street/Pacific Highway
- G Street/Kettner Boulevard
- G Street/State Street
- Harbor Drive/Pacific Highway

As described in response to comment B-2, the option to temporarily convert one travel lane along 1st Avenue between E Street and F Street to southbound was identified to provide an alternate route for MTS buses and emergency service vehicles in the vicinity of the Proposed Action. If this is option is approved by the City, this would eliminate the need to detour MTS buses west to State Street.

B-8

2) *If a complete closure is needed:*

- a. MTS requests that the proposed TCP restriping of southbound Front Street approaching Broadway be changed from dual right turn lanes with a single left turn lane to dual lefts with a single (wide) right turn lane.
- b. MTS would also request that the block of E Street between Front Street and Broadway remain open and accessible for buses. This will require that the construction barriers are positioned to allow the longer vehicles to make turns. MTS can assist your traffic and engineering consultants with information on the appropriate turning templates. It may also require removal of some or all parking along eastbound E Street.

B-9

Thank you again for the opportunity to comment. If you have any questions for MTS, please feel free to contact me at (619) 515-0929 or Denis.Desmond@sdmts.com.

Sincerely,

Denis Desmond
Director of Planning

L-GSA.FRONTSTREETCLOSURE_DEC2018_DD

cc: Sharon Cooney, MTS
Bill Spraul, MTS
Jeff Codling, MTS
Tony Beaver, MTS
Steve Celniker, City of San Diego

B-5

The TIA acknowledges that under existing conditions, the westbound segment of Ash Street between Pacific Highway and Kettner Boulevard operates at LOS E during the AM Peak Hour; during the PM peak hour, this segment operates at an acceptable LOS D (refer to Table 3.2-4 of this Final EA). As shown in Table 3.2-6, during full closure of Front Street between Broadway and F Street, the peak hour roadway operations of the westbound segment of Ash Street between Pacific Highway and Kettner Boulevard is shown to improve to LOS D during the AM peak hour and remain the same for the PM peak hour. During partial closure (maintaining two lanes of travel on Front Street between Broadway and F Street), conditions on westbound Ash Street are shown to be similar to existing conditions (LOS E during the AM peak hour and LOS D during the PM peak hour).

Eastbound A Street from Front Street to 1st Avenue currently operates at LOS C during the AM and PM peak hours. Peak hour operations for the segment of A street between Front Street and 1st Avenue also would remain the same (LOS C) during the AM and PM peak hours for both full and partial closure of Front Street between Broadway and F Street during construction of the Proposed Action (refer to Table 3.2-6 of this Final EA). Thus, deadhead bus operations (i.e., bus travel without passengers on board) along these segments are not anticipated to be adversely affected by implementation of the Proposed Action

B-6

Both the intersection of B Street and Columbia Street and the segment of Columbia Street south of Ash Street are included in the analysis presented in the TIA and Section 3.2 of this Final EA. During existing conditions, the unsignalized intersection of B Street and Columbia Street operates at LOS A during the AM and PM peak hours. As shown in Table 3.2-7, this intersection is calculated to continue to operate at LOS A during the AM and PM peak hours during both full and partial closure of Front Street between Broadway and F Street. The segment of Columbia Street south of Ash Street currently operates at LOS C during the AM and PM peak hours, and is shown to continue to operate at LOS C during both full and partial closure of Front Street (refer to Table 3.2-6 of this Final EA). Thus, implementation of the Proposed Action is not anticipated to adversely affect operating conditions at the intersection of Columbia Street and B Street.

B-7

The Final EA considers two closure options for Front Street between Broadway and F Street: full closure and partial closure (maintaining two lanes of travel). As described in the responses above, another scenario—temporarily converting one travel lane along 1st Avenue between E Street and F Street to southbound—has been added to the revised TIA and addressed in this Final EA to provide an alternate

COMMENTS

RESPONSES

B-7 (cont.) route for MTS buses and emergency service vehicles in the vicinity of the Proposed Action during full closure of Front Street. As stated in response to comment A-9, a Traffic Control Plan would be prepared in compliance with the City's Traffic Control Permit requirements and would undergo review and approval by the City prior to the start of construction. GSA and the construction contractor would coordinate with MTS officials and City staff early in preparation for construction of the Proposed Action to determine the appropriate detour options and provide enough time for MTS to redirect routes and relocate the existing bus stops that would be affected by the closure of Front Street.

B-8 Refer to response to comment B-3; the proposed restriping of turn lanes on southbound Front Street as it approaches Broadway cannot be provided at this intersection due to conflicts with through movements.

B-9 The request to keep the block of E Street between Front Street and Broadway open and accessible for buses during construction of the Proposed Action would be addressed in the Traffic Control Plan.

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5.0 LIST OF PREPARERS

This EA was prepared by HELIX Environmental Planning, Inc. for GSA. The following persons participated in preparation of the EA:

GSA

Osmahn Kadri, Regional Environmental Quality Advisor/NEPA Project Manager, Portfolio Management Division

Ana Lau, Project Manager, Design & Construction Division

Keaton Norquist, Attorney, Office of Regional Counsel

HELIX Environmental Planning, Inc.

Tammy Ching, Principal, Planning Division

Tim Belzman, Senior Project Manager, QA/QC

Vanessa Toscano, Senior Project Manager

Victor Ortiz, Senior Air Quality Specialist

Martin Rolph, Air Quality/Noise Specialist

Aaron Brownwood, Senior Project Manager

Stacy Hall de Gomez, Environmental Planner

Jason Runyan, Environmental Planner

Camille Lill, GIS Specialist

Rebecca Kress, GIS Specialist

Ana Topete, Word Processor/Document Specialist

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