

# **Santa Monica Pier Bridge Replacement Project**

LOS ANGELES COUNTY, CALIFORNIA  
DISTRICT 7 – LA  
BHLO-5107 (033)

## **Recirculated Draft Environmental Impact Report/Environmental Assessment**



**Prepared by the  
California Department of Transportation  
and the City of Santa Monica**

The environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 USC 327 and the Memorandum of Understanding dated May 27, 2022, and executed by FHWA and Caltrans.



**July 2022**



Replacement of the existing Santa Monica Pier Bridge with a seismically resistant and structurally sound bridge.  
Santa Monica Pier Bridge, extending west from the intersection of Colorado Avenue and Ocean Avenue to  
Santa Monica Pier.

## RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT/ ENVIRONMENTAL ASSESSMENT

Submitted Pursuant to: Division 13, California Public Resources Code  
42 USC 4332(2)(C) and 49 USC 303

THE STATE OF CALIFORNIA  
Department of Transportation  
and  
City of Santa Monica


Responsible Agencies: California Transportation Commission

Sept 7, 2022  
Date of Approval

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Date of Approval



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## **General Information about This Document**

### **What's in this document:**

The California Department of Transportation (Department), as assigned by the Federal Highway Administration (FHWA), has prepared this Environmental Impact Report/Environmental Assessment (EIR/EA), which examines the potential environmental impacts of the alternatives being considered for the proposed project located in Santa Monica, California. The Department is the lead agency under the National Environmental Policy Act (NEPA). The City of Santa Monica (City) is the lead agency under the California Environmental Quality Act (CEQA). This document tells you why the project is being proposed, what alternatives we have considered for the project, how the existing environment could be affected by the project, the potential impacts of each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

### **What you should do:**

- Please read this document.
- Additional copies of this document and the related technical studies are available for review at the Main Santa Monica Public Library, located at 601 Santa Monica Blvd Santa Monica, CA 90401 and the Ocean Park Branch Library, located at 2601 Main Street, Santa Monica, CA 90405; and at Caltrans District 7, located at 100 S. Main Street, Los Angeles, CA 90012.
- This document may be downloaded at the following website:  
<https://www.santamonica.gov/santa-monica-pier-bridge-replacement-project>
- Attend the public meeting. October 13<sup>th</sup>, 2022, at Santa Monica Institute (SMI) Training Room, 330 Olympic Drive, Santa Monica, CA 90401
- We'd like to hear what you think. If you have any comments about the proposed project, please attend the public hearing and/or send your written comments via postal mail or email to the Department by the deadline.
- Send comments via postal mail to:  
City of Santa Monica  
Engineering and Street Services Division  
Attention: Omeed Pour, P.E.  
1685 Main St #15  
Santa Monica, CA 90401
- Send comments via email to: [Omeed.Pour@santamonica.gov](mailto:Omeed.Pour@santamonica.gov)
- Be sure to send comments by the deadline: November 10, 2022

### **What happens next:**

After comments are received from the public and reviewing agencies, the Department, as assigned by the FHWA, may: (1) give environmental approval to the proposed project, (2) do additional environmental studies, or (3) abandon the project. If the project is given environmental approval and funding is obtained, the Department could design and construct all or part of the project.

### **Alternative Formats:**

For individuals with sensory disabilities, this document can be made available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to City of Santa Monica, Attn: Omeed Pour, Engineering and Street Services Division, 1685 Main St #15, Santa Monica, CA 90401; (310) 458-2201 x2481, or use the California Relay Service 1 (800) 735-2929 (TTY to Voice), 1 (800) 735-2922 (Voice to TTY), 1 (800) 855-3000 (Spanish TTY to Voice and Voice to TTY), 1-800-854-7784 (Spanish and English Speech-to-Speech) or 711.



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# Summary

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## S.1 NEPA Assignment

California participated in the “Surface Transportation Project Delivery Pilot Program” (Pilot Program) pursuant to 23 USC 327, for more than five years, beginning July 1, 2007, and ending September 30, 2012. MAP-21 (P.L. 112-141), signed by President Obama on July 6, 2012, amended 23 USC 327 to establish a permanent Surface Transportation Project Delivery Program. As a result, the Department entered into a Memorandum of Understanding pursuant to 23 USC 327 (NEPA Assignment MOU) with Federal Highway Administration (FHWA). The NEPA Assignment MOU became effective October 1, 2012, and was renewed on December 23, 2016, for a term of five years. In summary, the Department continues to assume FHWA responsibilities under NEPA and other federal environmental laws in the same manner as was assigned under the Pilot Program, with minor changes. With NEPA Assignment, FHWA assigned, and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

## S.2 Joint CEQA/NEPA Document

The project is subject to federal, as well as the City of Santa Monica (City) and state environmental review requirements because the City proposes the use of federal funds from the Federal Highway Administration (FHWA) and/or the project requires an approval from FHWA. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The City is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other actions required by applicable Federal environmental laws for this project are being, or have been, carried out by Caltrans pursuant to 23 United States Code Section 327 (23 USC 327) and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans. With NEPA Assignment, FHWA assigned, and the Department assumed all of the United States Department of Transportation (USDOT) Secretary's responsibilities under NEPA. This assignment includes projects on the State Highway System and Local Assistance Projects off the State Highway System within the State of California, except for certain categorical exclusions that FHWA assigned to the Department under the 23 USC 326 CE Assignment MOU, projects excluded by definition, and specific project exclusions.

Some impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA. Because NEPA is concerned with the significance of the project as a whole, often a “lower level” document is prepared for NEPA. One of the most common joint document types is an Environmental Impact Report/Environmental Assessment (EIR/EA).

After receiving comments from the public and reviewing agencies, a Final EIR/EA will be prepared. The City and the Department may prepare additional environmental and/or engineering studies to address comments. The Final EIR/EA will include responses to comments received on

the Draft EIR/EA and will identify the preferred alternative. If the decision is made to approve the project, a Notice of Determination will be published for compliance with CEQA, and the Department will decide whether to issue a Finding of No Significant Impact (FONSI) or require an Environmental Impact Statement (EIS) for compliance with NEPA. A Notice of Availability (NOA) of the FONSI will be sent to the affected units of federal, state, and local government, and to the State Clearinghouse in compliance with Executive Order 12372.

## **S.3 Introduction**

The City of Santa Monica, in cooperation with Caltrans, is proposing the replacement of the Santa Monica Pier Bridge (Pier Bridge), which extends west from the intersection of Ocean Avenue and Colorado Avenue to the Santa Monica Pier in the city of Santa Monica.

Figure S-1 and Figure S-2 show the regional location and project construction limits, respectively. The purpose of the proposed replacement bridge is to provide a seismically safe bridge for vehicular, bicycle, and pedestrian use.

## **S.4 Project Description**

### **S.4.1 Purpose and Need**

In accordance with 40 Code of Federal Regulations 1502.12, this chapter provides an explanation of the “underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action.”

### **S.4.2 Project Purpose**

The purpose of the proposed replacement bridge is to provide a seismically safe bridge for vehicular, bicycle, and pedestrian use. The primary purposes and objectives of the proposed project are as follows:

- To provide a bridge that is structurally sound and seismically resistant;
- To provide a bridge with a 75-year design life;
- To ensure adequate and safe access to the pier for all users, including pedestrians, persons with limited mobility, bicyclists, motorists, and delivery and emergency vehicles;
- To improve bicycle and pedestrian access to the pier;
- To preserve visual resources, including the Ocean Front Walk scenic view corridor;
- To ensure the economic viability of existing businesses by improving access to the pier and the historic Looff’s Hippodrome;
- To preserve the historic character of the pier and adjacent historic structures while improving access to the pier; and
- To provide a bridge that maintains access for emergency vehicles, including police, fire, and harbor guard vehicles.



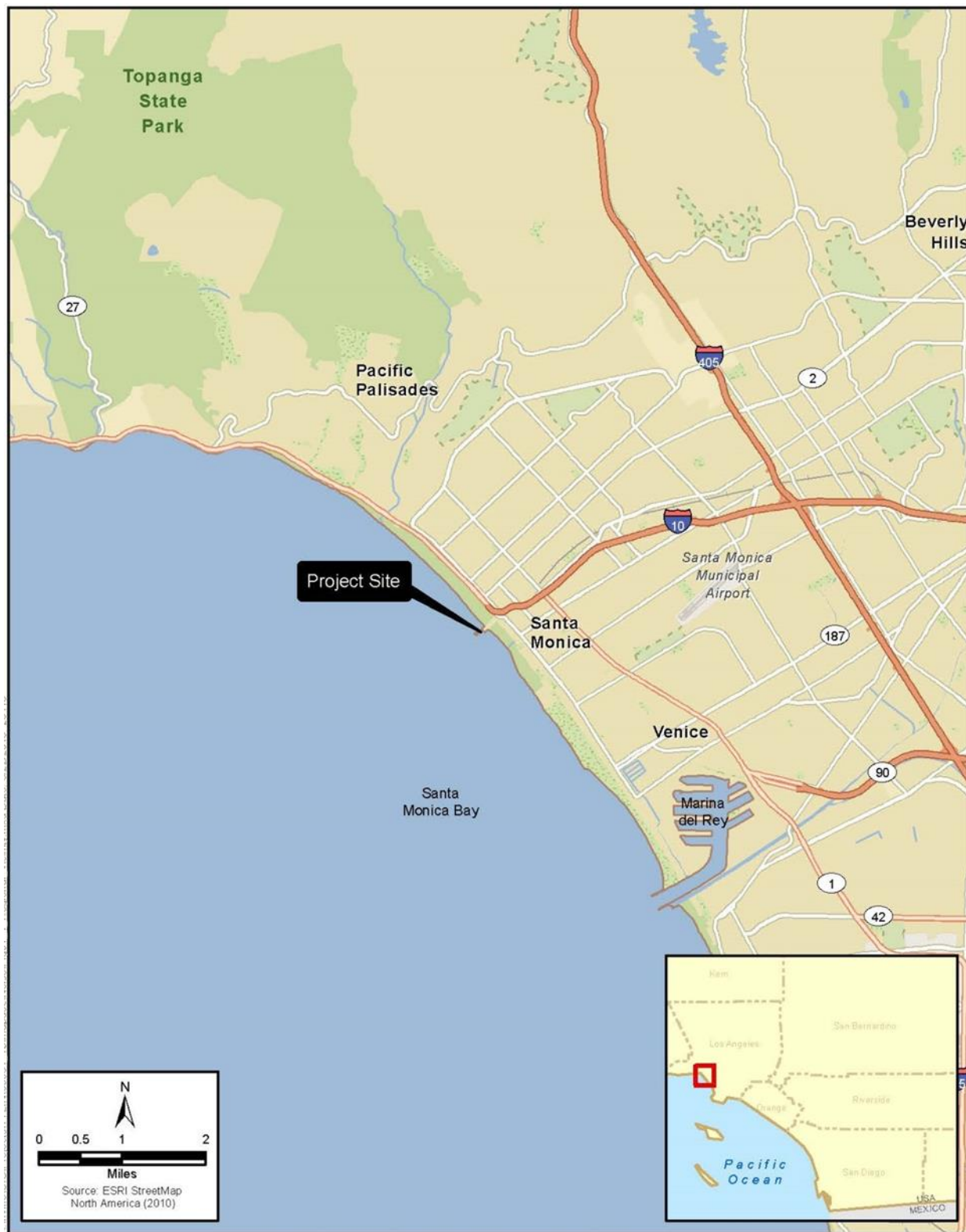


Figure S-1. Regional Location



Figure S-2. Project Vicinity

## **S.5 Project Need**

The Pier Bridge connects the iconic Santa Monica Pier to the intersection of Ocean Avenue and Colorado Avenue within the downtown district of the city. This section describes existing bridge conditions, including the seismic deficiencies of the existing bridge, the steep bridge grade and profile constraints, and the challenges associated with providing improved access for all individuals because of these existing conditions. This section also describes current deficiencies with respect to accommodating all the different travel modes, which create safety concerns. Finally, this section describes modal interrelationships and the important linkages to the transportation, access, and circulation system provided by the bridge.

### **S.5.1 Structural Deficiencies**

The Pier Bridge, which was constructed in 1939 by the federal Works Progress Administration, is 488 feet long and 34 feet wide. It once included two 4-foot-wide sidewalks; however, pedestrians frequently overflowed into vehicular lanes, thereby raising safety concerns. In response, the bridge was reconfigured to provide two vehicular travel lanes and one 9.33-foot-wide pedestrian walkway on the north side, which is separated by a temporary concrete traffic barrier (i.e., K-rail). Photo 1-1 shows the existing configuration of the bridge as well as pedestrian overflow. As with all bridges of this era in a seismically active region of Southern California, the original construction does not meet the current seismic standards of the American Association of State Highway and Transportation Officials (AASHTO) or the Caltrans Seismic Design Criteria (SDC). Seismic deficiencies that do not meet current AASHTO or SDC requirements include:

- Lap splices at the base of columns,
- Insufficient amount of confinement reinforcement in the bridge columns,
- Absence of spiral reinforcing in concrete columns,
- Lack of adequate seat width at abutments and hinges, and
- Inadequate footing capacity for lateral loading.

The deficiencies make it very difficult for the existing bridge to withstand a major earthquake without incurring significant damage to the columns and potentially threatening overall bridge integrity. In addition, the bridge has concrete that is cracked, delaminated, and broken off in many locations along the length of the bridge, exposing reinforcing steel to both saltwater and air and accelerating corrosion. The existing bridge is seismically deficient and has a physically deteriorated condition.

Bridges that are found to be seismically deficient, as defined by FHWA, with a sufficiency rating of less than 50 (on a scale of 100), are eligible for federal funding for replacement under the Highway Bridge Program (HBP). According to the Caltrans Structure Maintenance and Investigations Local Agency Bridge List, dated July 2018, the bridge currently has a sufficiency rating of 17.0, well below the threshold for HBP financial support. It should be noted that bridge sufficiency ratings typically decline somewhat over time because of bridge deck, superstructure, and substructure deterioration.

The HBP sufficiency rating is applicable to all bridges that carry either highway or local vehicular traffic. Because of the need for emergency and delivery vehicles to access businesses, the Pier Bridge will always carry vehicular traffic, even if were to be closed to public vehicular traffic.

Because the bridge is seismically deficient and has a sufficiency rating of less than 50, it is eligible for complete replacement with federal funding, according to Chapter 6 of Caltrans Local Assistance Program Guidelines. In addition to the HBP rating, Caltrans also uses a bridge health rating to identify the structural condition of bridges. Ratings of “good,” “fair,” or “poor” identify a bridge’s overall condition, based on the lowest rating for the bridge deck, superstructure, or substructure. The Pier Bridge currently has a Caltrans bridge health rating of “fair.” In August 2006, the City prepared a Draft EIR/EA to rehabilitate, seismically retrofit, and widen the bridge by 12 feet. This project was later cancelled because Caltrans local assistance and HBP administrators within Caltrans decided that rehabilitation would not be cost effective because a rehabilitated bridge would require more maintenance than a new bridge constructed with modern materials that could withstand the marine environment. In addition, a retrofitted bridge would not meet current bridge design code requirements. Finally, federal funding could be used only for complete bridge replacement.

To support the aforementioned project, a seismic analysis of the Pier Bridge, including a widened 12-foot section to the north, was performed in 2008; that analysis is appended to this recirculated Draft EIR/EA (see Appendix F). The analysis found the bridge columns had insufficient displacement and shear capacity, indicating that the bridge could collapse, and design seismic hazards, as defined by the Caltrans SDC. Based on the seismic analysis, including existing structural details, the Pier Bridge does not meet Caltrans’ “no collapse” seismic performance standard, which is intended to protect human life. The latest bridge inspection report is appended to this recirculated Draft EIR/EA (see Appendix G).

The Pier Bridge could be retrofitted rather than completely replaced. However, that would not restore the bridge to a state that would meet either current AASHTO or Caltrans SDC requirements.

The Pier Bridge is currently not eligible for listing on the National Register of Historic Places, according to the Caltrans Structure Maintenance and Investigations Historic Bridge Inventory, which is also appended to this recirculated Draft EIR/EA (see Appendix H).

Bridges with a sufficiency rating between 50 and 80 are typically eligible for only rehabilitation work; those with a sufficiency rating below 50 are eligible for replacement. The Pier Bridge sufficiency rating is less than 50; therefore, federal funding is available to support replacement of the bridge.

Because the City desires to provide a replacement structure that meets current seismic design requirements, with minimal future maintenance costs, the City, as well as Caltrans, has therefore elected to replace the bridge.

### **S.5.2 Bridge Grade and Profile Constraints**

The existing bridge has a straight east–west alignment from Ocean Avenue to the pier, with a maximum grade of 10.2 percent and a drop in elevation of 36 feet from its crest to the pier deck, without intermediate landings. Photo 1-2 shows the steep grade change between the top of the bridge and the landing at the pier.

The bridge grade is controlled by several streets that cross under the bridge, such as MAW and Appian Way. The current vertical clearance above MAW is 15 feet (the minimum for city streets, per Caltrans Highway Design Manual). Therefore, the bridge grade cannot be altered by lowering its profile without having an adverse effect on the road network below or requiring an exception to the requirements for minimum vertical clearance.

As part of initial planning for the proposed project, consideration was given to lowering MAW in order to lower the bridge profile and thereby decrease the bridge grade. However, in addition to the constraints noted above, the profile of MAW is controlled by the adjacent Caltrans-owned McClure Tunnel, which serves Pacific Coast Highway. Lowering MAW would require increasing the grade of the approach roadway under the Pier Bridge and reducing the vehicular sight distance on MAW to a point that would be below minimum state requirements. These constraints would make alterations to the existing grade of the Pier Bridge infeasible.

### **S.5.3 Americans with Disability Act**

Currently, the primary Americans with Disability Act (ADA) compliant access route to the pier is from Ocean Boulevard to MAW to Ocean Front Walk to the ramp to the pier, within the sidewalk portion of the existing bridge (i.e., at the same slope as the vehicle/bicycle lanes). Because the sidewalk (pedestrian access route) is contained within the bridge, which is a street, the slope of the sidewalk is allowed to be the same as the adjacent street grade (United States Access Board Public Rights-of-Way Accessibility Guidelines 302.5, California Building Code 11B-403.3, Caltrans Design Information Bulletin 82-06 4.3.4). The existing bridge is, and can continue to be, used by those with limited mobility (see Photo 1-3). However, current ADA standards for pedestrian paths separated from adjacent streets recommend a maximum grade of 8.33 percent, with intermediate landings spaced to accommodate every 2.5-foot change in elevation, or a 5% maximum continuous grade.

### **S.5.4 Circulation, System Linkages, Modal Interrelationships, and Safety Concerns**

The bridge serves as the primary access route for pedestrians and bicyclists as they travel to the pier and beach. In addition, it provides the only vehicular access route to the pier for various vendors, special events, pier businesses, pier deck parking, pier maintenance, and delivery and emergency vehicles. The bridge is vital to the function of the pier in that it provides direct public access from the downtown Santa Monica area including the Downtown Station for the Metro E light rail. It also provides direct public access to Santa Monica State Beach via the pier, which is at the base of the bluffs below Palisades Park and Tongva Park.

Since completion of the Los Angeles County Metropolitan Transportation Authority (Metro) Exposition (Expo or E) light rail line and Colorado Esplanade in May 2016, there has been increased pedestrian and bicyclist use of the Pier Bridge. The Colorado Esplanade, between the Expo station at Fourth Street and Ocean Avenue, transformed Colorado Avenue into a multi-modal street with an extra-wide pedestrian walkway on the south side and a dedicated two-way cycle track on the south side of the street. The Colorado Esplanade also reconfigured the intersection of Second Street/Main Street and Colorado Avenue into a single intersection and modified vehicular traffic flow on Colorado Avenue, making it westbound only. Photo 1-5 shows the Colorado Esplanade. Given the high volume of pedestrians and bicyclists in the area,

integrating Pier Bridge and pier access with the multi-modal Colorado Esplanade is critically important.

There is also a desire to improve bicycle access between the pier and the existing Beach Bike Trail below the pier. As part of a separate future project, the City is proposing a direct bicycle connection between the pier and the Beach Bike Trail. The proposed Pier Bridge replacement project would be designed so as not to preclude but, rather, allow construction of this adjacent future project.

Peak weekend average daily traffic (ADT) at the pier totals approximately 3,700, a mix of beach/amusement park patrons and service/delivery vehicles. However, the pedestrians and bicyclists who gain access to the pier and beach from Ocean Avenue represent the largest portion of bridge users.

Pier deck parking currently accommodates 277 vehicles. When the pier deck parking area is full, or during periods of high pedestrian usage, the bridge must be closed to vehicular traffic. At that point, the bridge then functions primarily as a pedestrian/bicycle facility, with cars using Lot 1 North, Lot 1 South, or other City parking facilities. It is notable that pier usage is heavy not only in the summer months but year-round. The second-busiest time for pier businesses is the winter holiday season. The Santa Monica Office of Pier Management estimates that between 6 and 10 million people visit the pier annually.

During times of high use, the bridge is not wide enough to accommodate the volume of pedestrians, bicycles, and vehicles that use the facility. Queuing affects the Colorado Avenue/Ocean Avenue intersection and other nearby intersections during peak periods, including other intersections throughout the broader downtown area. When the volume is high enough, pedestrian traffic overflows into the roadway, as shown in Photo 1-1. This creates safety concerns, which have been documented by both the City of Santa Monica Police and Fire Departments. Also, there is another point of pedestrian and vehicular conflict on the pier. The existing pedestrian crosswalk crosses southerly from the north side of the bridge to the pier deck where the pier access road joins the deck, as shown in Photo 1-4. This location is just before the vehicle turnaround area and entrance to the pier parking lot, which presents an unsafe condition. Finally, the staircase that connects Appian Way to the bridge has been closed for many years because of deterioration and damage sustained from the 1994 Northridge earthquake.

In summary, the existing bridge has the following deficiencies with respect to accommodating pedestrian, bicycle, and vehicular modes of travel:

The bridge width does not provide an appropriate space for each travel mode;

There are substantial points of conflict between pedestrians and vehicles where the Pier Bridge joins the pier, at a pedestrian crossing adjacent to the Hippodrome, and farther along the pier deck where vehicles turn left to the deck parking lot;

The bridge's attached, but deteriorated, staircase that connects to Appian Way has been closed for many years because of safety concerns.

## **S.6 Alternatives**

Alternatives 1 and 2 (Locally Preferred Alternative [LPA]) would provide an in-kind replacement bridge, which would maintain the current paths of access from Ocean Avenue to the pier, namely,



one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path, consisting of a sidewalk, that would be used for ADA-compliant access (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent along both paths. Existing alternate routes would remain available for ADA-compliant access. The alternative ADA routes will be evaluated for improvement with additional signage, additional parking locations, and/or curb ramp upgrades, if necessary.

Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not improve conditions related to ADA standards. As time goes on, these compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative serves as a baseline against which the performance and potential environmental impacts of the build alternatives are measured.

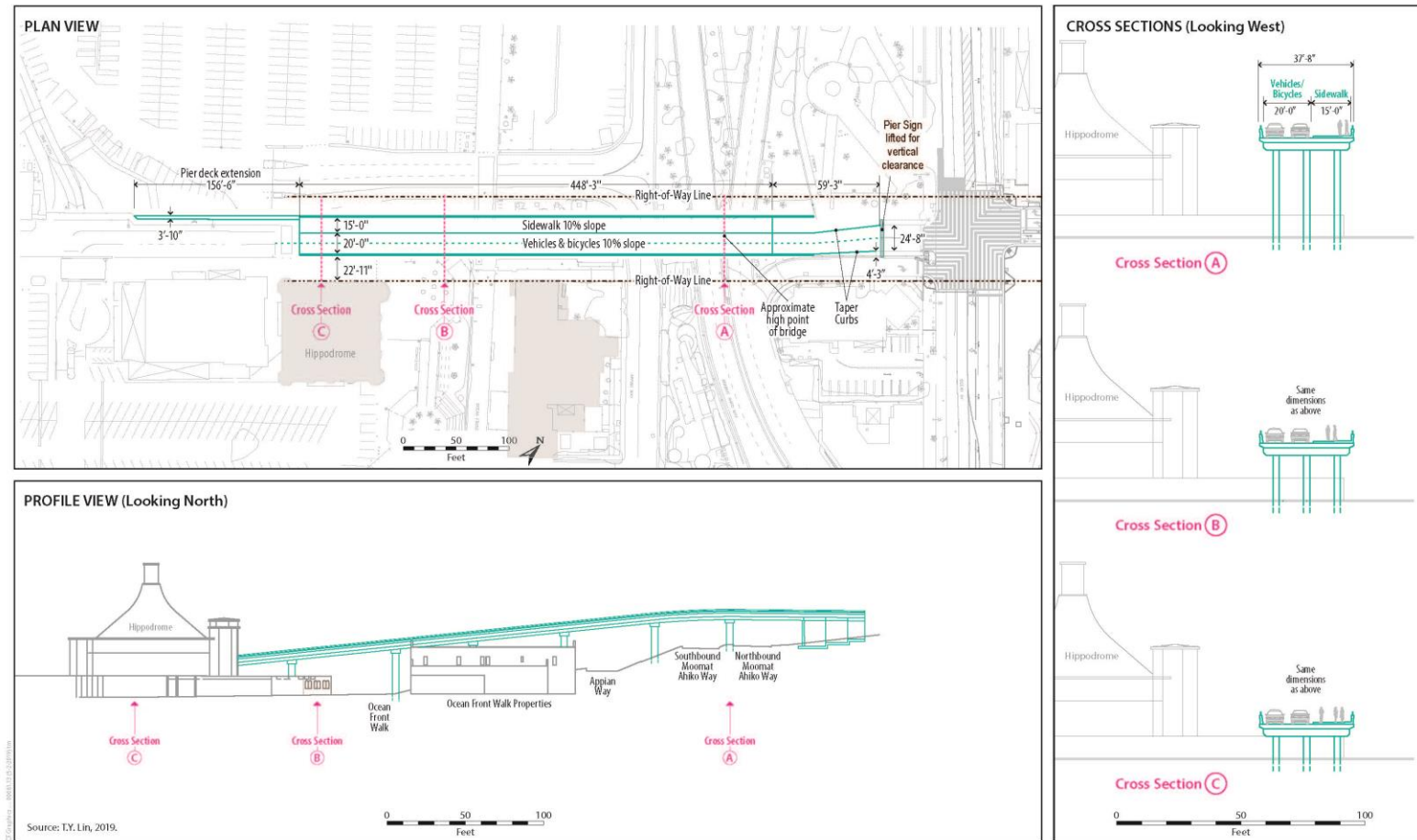
### **S.6.1 Alternatives 1 and 2 (LPA): In-Kind Bridge Replacement**

Alternatives 1 (In-Kind Pier Bridge Replacement with Northside Sidewalk), and Alternative 2 (In-Kind Pier Bridge Replacement with Southside Sidewalk (Locally Preferred Alternative) would provide an in-kind replacement bridge with the same alignment and profile as the existing bridge. The replacement bridge would be approximately 448 feet in length and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as existing bridge. Two design configurations for the bridge configuration are being considered, as described below.

Under Alternative 1 (see Figures S-3 and S-4), vehicles and bicycles would use a 20-foot-wide roadway on the south side of the bridge. A 15-foot-wide sidewalk would be provided on the north side of the bridge. The roadway from Ocean Avenue would require a northeast-to-southwest taper from the existing curbs. The existing historic pier sign would be removed during construction and reinstalled at the same location but elevated to provide a minimum vertical clearance of 17'-0" per MUTCD. This alternative would also require an approximately 4-foot-wide extension of the existing pier deck, running approximately 157 feet, on the north side of the pier. Under Alternative 1, the footprint of the existing bridge on the south side would remain unchanged from existing conditions.

Under Alternative 2 (LPA), the proposed project (see Figures S-6 and S-7) the path locations would be reversed; vehicles and bicycles would use a 20-foot-wide roadway on the north side of the bridge and a 15-foot-wide sidewalk on the south side of the bridge. The length of the bridge would be essentially the same as under Alternative 1. The historic pier sign would be removed during construction and require relocation to an area approximately 10 feet north of its existing location and elevated to provide a minimum vertical clearance of 17'-0". The curbs from Ocean Avenue would not require a taper under this alternative. The same pier deck extension on the north side would also be required under this alternative. Under Alternative 2, the footprint of the existing bridge on the south side would remain unchanged from existing conditions. For both Alternatives 1 and 2, ADA-compliant access to the pier would be provided by the existing routes.

## Alternative 1: In-Kind Pier Bridge Replacement with Northside Sidewalk



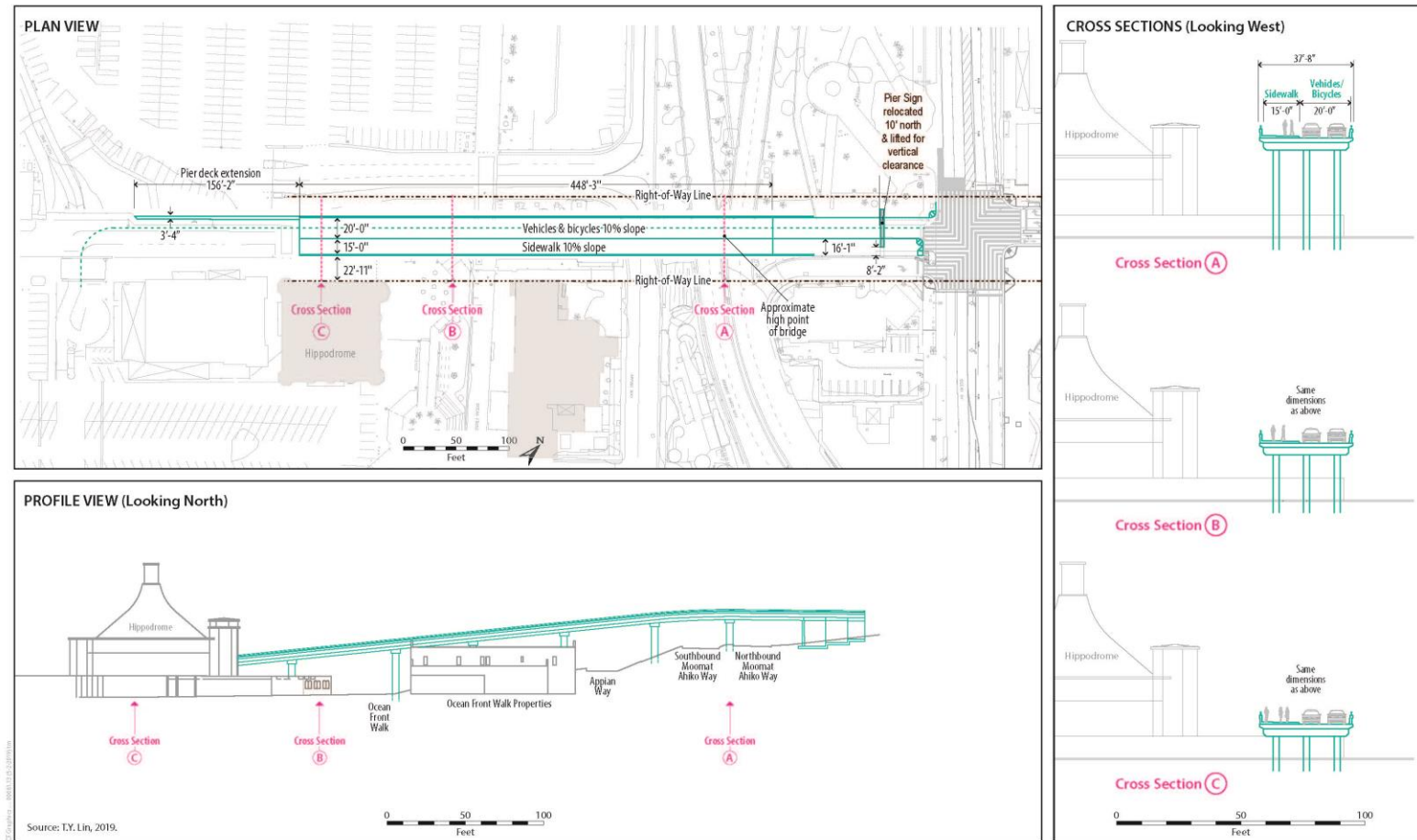
**Figure S-3. Alternative 1, In-Kind Pier Bridge Replacement with Northside Sidewalk**





Figure S-4. Alternative 1, Aerial View

## Alternative 2: In-Kind Pier Bridge Replacement with Southside Sidewalk



**Figure S-5. Alternative 2, In-Kind Pier Bridge Replacement with Southside Sidewalk**





Figure S-6. Alternative 2, Aerial View

## S.7 Known Areas of Controversy

- During the public scoping process for the previously circulated EIR/EA (December 11, 2014, through February 2, 2015), a number of agencies and individuals submitted written comments. In addition to comments regarding the build alternatives, many had questions and concerns about traffic, pedestrian safety, and conflicts between vehicles, cyclists, and pedestrians. Many individuals expressed differing views about which build alternative would be best for the surrounding community and visitors as well.

## S.8 Intended Uses of the Draft Recirculated EIR

- According to Section 15121 of the State CEQA Guidelines, an EIR is a public document used by a public agency to analyze the potentially significant environmental effects of a proposed project, identify alternatives, and disclose possible ways to reduce or avoid environmental damage. As an informational document, an EIR does not recommend for or against approving a project. The main purpose of an EIR is to inform governmental decision makers and the public about potential environmental impacts of a project.
- Accordingly, this Draft Recirculated EIR will be used by the City of Santa Monica, as the lead agency under CEQA and the project proponent, in making decisions regarding approval of the Santa Monica Pier Bridge Replacement Project.
- The information in this EIR may also be used by the responsible agencies identified below in Section S-6 to decide whether to grant the permits or approvals necessary to construct or operate the proposed project.

## S.9 Permits and Approvals

The following permits or approvals would be required to construct the proposed project:

Agency	Permit/Approval
California Coastal Commission	Coastal development permit
California State Historic Preservation Officer	Approval/concurrence for finding of effect and memorandum of agreement
Los Angeles Regional Water Quality Control Board	National Pollutant Discharge Elimination System permit
City of Santa Monica Landmarks Commission	Certificate of appropriateness and review of design plans concerning construction near landmark properties, including but not limited to Palisades Park, the historic Looff's Hippodrome, the Pier Sign, Carousel Park, Historic Pier District and Santa Monica Pier
City of Santa Monica City Council	Approval of project and certification of CEQA document; adoption of findings of fact, statement of overriding considerations, and mitigation measures (if applicable)
Caltrans	Approval of NEPA document and encroachment permit for Pacific Coast Highway

## **S.10 Summary of Impacts and Mitigation Measures**

Table S-1 provides a summary of the environmental effects that would result from implementation of the proposed project, potential avoidance, minimization, and/or mitigation measures, and impact determinations before and after implementation of proposed mitigation. For a detailed discussion of the proposed project's environmental impacts under NEPA, please see Chapter 2 of this Recirculated EIR/EA. A discussion of the proposed project's potential impacts under CEQA and other CEQA-required discussions are included in Chapter 3 of this EIR/EA.

**Table S-1. Summary of Significant Impacts and Mitigation Measures under the Proposed Build Alternatives**

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
<b>Human Environment</b>		
<b>Land Use</b>		
<p><b>Consistency with State, Regional, and Local Plans and Programs:</b> Although construction staging would occur adjacent to a small segment of Palisades Park, there would be no permanent land use changes to the park or any other areas as a result of the proposed project. Therefore, there would be no adverse effects, and impacts would be less than significant.</p> <p><b>Coastal Zone:</b> The proposed improvements under the project would be made to an existing transportation facility in a highly developed portion of the Coastal Zone; there would be no adverse effect and no significant impacts.</p> <p><b>Parks and Recreational Facilities:</b> Both build alternatives would use an area adjacent to Palisades Park (at the edge) adjacent to the Pier Bridge for construction staging. Palisades Park use would not be impacted, and access to the rest of the park would not be restricted by staging in this small area. There would be no impacts under operation of the proposed project. Both alternatives would require the removal of the historic Pier Sign during construction. However, the Pier Sign would be maintained, restored back on-site post construction and maintain its historic integrity.</p>	<p><b>LU-1.</b> The historic pier sign itself shall be maintained and preserved in kind. Repairs shall be performed, as needed, to preserve the sign's longevity and historic aesthetic. New support structures, to accommodate widening of the bridge, shall be constructed and designed to match the existing historic context and aesthetic of the bridge. All designs for the support structures shall be approved by a certified architectural historian.</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>
<b>Growth</b>		
<p>The proposed project would replace an existing transportation facility with a similar transportation facility; it would not construct new housing or include new land uses that could lead to growth. Additionally, the project would not directly or indirectly remove obstacles that could induce new growth.</p>	<p>No mitigation is required.</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>
<b>Community Character and Cohesion</b>		
<p>Closure of the Pier Bridge during construction would temporarily change access to the area. There is also a</p>	<p>No mitigation is required.</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
residential clustering north of Parking Lot 1 North and Palisades Park that would be mostly isolated from construction impacts. No negative impacts would occur under operation. The operation of the bridge would represent a beneficial effect on long-term cohesion within the community.		
<b>Relocations and Real Property Acquisition</b>		
Both build alternatives would require partial acquisition and temporary displacement of one non-profit organization. The real property affected is leased from the City of Santa Monica by Heal the Bay, a non-profit organization that operates an aquarium at the property. Demolition and reconstruction of the bridge would require construction workers and equipment that would temporarily affect approximately 1,400 square feet of exhibit and office space used by the aquarium. This may require reconstruction of the common walls of the offices, support facility, and aquarium roof.	The City continue to coordinate with Heal the Bay to ascertain the particulars of their operations and specific replacement-property needs. The proposed partial acquisition and temporary displacement would comply with the appropriate requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. An Adjacent Structures Monitoring Plan, mitigation measure CR-3, will be prepared for the project and include the monitoring of the aquarium for impacts due to construction vibration.	NEPA: Not Adverse CEQA: Less than Significant
<b>Environmental Justice</b>		
The build alternatives would not cause disproportionately high and adverse effects on any minority or low-income populations, per EO 12898. Given the nature of the project, which is the replacement of the existing bridge at its present location, no environmental justice-related disproportionate effects would result. The bridge is a public use facility and does not restrict usage for any group, race, or class.	No mitigation is required.	NEPA: Not Adverse CEQA: Environmental Justice is only applicable under NEPA
<b>Utilities/Emergency Services</b>		
<b>Water Supply</b> Construction would require the occasional use of water for mixing concrete, washing equipment and vehicles, dust control, and other activities. Because the proposed project would require only a small, limited quantity of water, adequate water supplies would be available to serve the project from existing entitlements and resources. No new or expanded entitlements would be needed. Therefore, construction impacts would not be adverse under NEPA and	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
less than significant under CEQA.		
<p><b>Solid Waste</b> The construction of the proposed project would result in the relocation of a City trash compactor. Demolition of the existing bridge and associated structures would generate solid waste.</p> <p><b>Electricity</b> Construction would require the relocation of an emergency backup generator for the Santa Monica Pier Aquarium, the relocation of a nearby electrical utility room, and the removal of the four lampposts that line existing Pier Bridge.</p>	UES-1. Prior to construction activities that could affect utility services on the pier, the City of Santa Monica project manager and construction contractor shall coordinate with utility owners to develop a plan to maintain continuous essential services to the pier during construction.	NEPA: Not Adverse CEQA: Less than Significant
<p><b>Storm Drains</b> Construction activities would not demolish or disrupt any part of the City's existing storm drain system. In addition, best management practices would be implemented to control discharges into the storm drain system during construction. As with operation of the existing Pier Bridge, operation of the replacement Pier Bridge would not change the existing storm drain system in the vicinity of the project site. Therefore, operation of the replacement bridge would have no adverse effects under NEPA or significant impacts under CEQA on the city's storm drain system.</p>	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant
<p><b>Police and Fire Protection</b> During construction, temporary lane or road closures may affect response times of emergency vehicles.</p>	UES-2. Both before construction begins and thereafter, the City of Santa Monica project manager and construction contractor shall regularly notify and coordinate with the Santa Monica Police Department and Santa Monica Fire Department during project design and scheduling, particularly in regard to any street or lane closures related to the proposed project.	NEPA: Not Adverse CEQA: Less than Significant
<b>Traffic and Transportation/Pedestrian and Bicycle Facilities</b>		
The construction of the build alternatives would result in temporary closures to several transportation facilities, and the related detours during construction would increase vehicular traffic along some localized street segments and at some of the surrounding intersections. A construction traffic impact mitigation plan would be implemented to inform the public of potential affects to access and circulation to traffic during	TRA-1. A Construction Traffic Impact Mitigation Plan shall be prepared and implemented prior to construction to provide for traffic and parking capacity management during construction. This plan shall be subject to approval by the City Engineer and/or the City Traffic Engineer. The approved mitigation plan shall be posted on the project site for the duration of construction and be produced upon request. The plan shall include, but not be	NEPA: Not Adverse CEQA: Less than Significant



Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
<p>the various phases of construction as well as manage circulation and access to the project site and the surrounding vicinity during construction.</p> <p>Operation of Alternatives 1 and 2 would not result in any new impacts because traffic generation as well as circulation and access would be the same as under existing conditions.</p>	<p>limited to, the following:</p> <ul style="list-style-type: none"> <li>• Implement a public information program to advise motorists of impending and ongoing construction activities (e.g., use of media listings/notifications, the City website and related agency websites, portable message signs, informational signs at the construction site, a telephone hotline to record comments/complaints during construction);</li> <li>• Obtain approval from the City, or Caltrans, if required, for construction-related vehicular detours or construction work requiring encroachment into public rights-of-way or any other street use (e.g., haul routes for earth, concrete, construction materials, equipment);</li> <li>• Provide safety precautions for pedestrians and bicyclists through measures such as the installation of protection barriers and signage that indicates pedestrian and bicycle detours where existing facilities would be affected;</li> <li>• Ensure the timely notification of construction schedules for all affected agencies (e.g., City Police Department, Fire Department, and Public Works Department; Planning Division of the Community Development Department; affected transit agencies [Santa Monica Big Blue Bus and Metro]; and all property owners and residential and commercial tenants within a radius of 500 feet);</li> <li>• Schedule pre-construction meetings with affected agencies to plan the proper methods for controlling traffic through work areas;</li> <li>• Schedule and expedite work so as to cause the least amount of disruption and interference with the adjacent vehicular and pedestrian traffic flow, including, to the extent feasible, the avoidance of full closures on Moomat Ahiko Way, Appian Way, and Ocean Front Walk during months of peak activity at the pier;</li> <li>• Prepare a detailed traffic control plan for work zones that includes, at a minimum, parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes.</li> </ul>	

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>The plan shall include specific information regarding project construction activities that may disrupt normal pedestrian and traffic flows and measures to address disruptions.</p> <ul style="list-style-type: none"> <li>• Monitor traffic conditions during construction and, if needed, assign traffic control officers to direct vehicular traffic and pedestrians;</li> <li>• Limit the queuing of trucks to on-site locations and limit truck queuing on City streets;</li> <li>• Restrict the storage of construction material and equipment to designated work areas;</li> <li>• Provide a construction-period parking plan that minimizes the use of public streets for parking. This may include use of a remote location with shuttle transport to the site;</li> <li>• If feasible and safe, as determined by the City and Caltrans, ensure that Moomat Ahiko Way remains open during major events and activities at Santa Monica Pier; and</li> <li>• Unless required by the City and Caltrans, ensure that the California Incline remains open during the construction period for the proposed project.</li> </ul>	
<b>Visual/Aesthetics</b>		
<p>The composite viewer response from the key views would be moderate. Viewers within the project area are familiar with the existing bridge. The proposed bridge would be in keeping with the existing visual environment. In addition, widened bridge deck, and associated elements, such as vehicular lanes, bicycle lanes, sidewalks, barriers, and hand railings for both build alternatives, would not substantially alter visual resources in the project area. Therefore, the proposed bridge would not substantially alter the existing visual character of the project area, as seen from the key views.</p> <p>Operation of the project would not remove, destroy, or obstruct significant visual resources; compromise or diminish publicly valued views; result in substantial changes to the overall visual character or quality in the project area; introduce new sources of significant light and/or glare. After construction, the replacement structures would be similar to</p>	No mitigation is required.	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
those in the existing setting.		
<b>Cultural Resources</b>		
<p>Construction activities associated with the build alternatives have the potential to unearth unknown cultural resources within the area of potential effects.</p> <p>For all build alternatives portions of the pier would require modifications to allow for the joining of the pier to the replacement pier bridge. During construction the proposed project has the potential to temporarily impact to Looft's Hippodrome, Ocean Front Walk, Carousel Park, and the Santa Monica Pier Historic District. Both alternatives would also require the removal of the historic Pier Sign during construction, and its replacement. See also the Section 4(f) section later in this table.</p>	<p><b>CR-1.</b> If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the county coroner shall be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the most likely descendent. At that time, the person who discovered the remains will contact the District 7 Division of Environmental Planning to work with the most likely descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed, as applicable.</p> <p><b>CR-2.</b> If buried cultural resources, such as flaked or ground stone, historic debris, building foundations, or non-human bone, are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include developing avoidance strategies, capping with fill material, or mitigating impacts through data recovery programs such as excavation or detailed documentation.</p> <p><b>CR-3.</b> Prior to the start of construction, the City shall prepare an Adjacent Structure Monitoring Plan (Monitoring Plan) to safeguard adjacent historic resources, including the Looft's Hippodrome and the locally designated buildings at 1601–1619 Ocean Front Walk, during construction from damage due to vibration, demolition, excavation, and general construction activities and to mitigate the possibility of settlement due to the removal of soil.</p> <p>The Monitoring Plan will define protective measures specific to individual historic resources; assign monitoring responsibilities; install and maintain construction fencing for screening and security; and ensure safe public circulation and access during</p>	<p>NEPA: Not Adverse CEQA: Less than Significant after Mitigation</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>construction. Any protective measures shall be designed and installed in such a way that they are completely reversible with no impacts on historic resources. As part of the Monitoring Plan, prior to construction the project site and adjacent historic resources will be photographed to record their existing pre-construction condition and character-defining features to be kept on file with the publicly accessible property records at the City of Santa Monica.</p> <p>The Monitoring Plan shall be prepared by a qualified and California-licensed Professional Engineer who is approved by the City of Santa Monica. The Monitoring Plan shall be developed in conjunction with a qualified architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards in their respective field(s), pursuant to 36 CFR 61.</p> <p>The Monitoring Plan shall include performance standards that specify:</p> <p>All new construction work will be performed so that adjacent buildings and resources, including Loeff's Hippodrome and 1601–1619 Ocean Front Walk buildings, will not be adversely affected.</p> <p>A qualified and California-licensed Professional Engineer will develop monitoring recommendations, based on preconstruction surveys and photo documentation of existing conditions of adjacent historic resources. Monitoring may include the use of vibration monitors, elevation and lateral monitoring points, crack monitors, or other instrumentation determined necessary to protect adjacent buildings and structures from construction-related damage.</p> <p>Vertical and horizontal movement will be determined by a California-licensed land surveyor or qualified professional engineer, and vibration thresholds will be maintained to levels below that which could damage adjacent buildings.</p> <p>If thresholds are met, or if noticeable structural damage becomes evident to the project contractor, work shall stop until feasible steps to reduce vibratory levels have been undertaken and minimization measures have been implemented to stabilize</p>	

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>adjacent building and prevent construction-related damage. Any damage to historic finish materials at nearby buildings shall be repaired in consultation with the affected property owner and a qualified preservation consultant and, if warranted, in a manner that meets the Secretary of the Interior's Standards.</p> <p>If necessary, as determined by a California-licensed Professional Engineer, a shoring plan will be developed to protect adjacent historic resource from excavation or general construction procedures. The shoring plan will be developed by the contractor and submitted to the City of Santa Monica for review.</p> <p><b>CR-4.</b> Prior to any construction starting, the Pier Sign Preservation Plan shall be prepared and implemented to ensure the protection of the Pier Sign throughout the construction phase.</p> <p><b>CR-5.</b> All modifications to the Pier deck that are visible will be reconstructed and replaced in kind so as to maintain the historic character of the Pier, with new materials matching the original/old design, color, texture, and other visual qualities. All such work shall be accurately reproduced, based on historical, pictorial, and physical documentation and evidence. A Certificate of Appropriateness, approved by the City of Santa Monica Landmarks Commission, is also required.</p> <p><b>CR-6.</b> To ensure a compatible replacement bridge avoids significant adverse effects to adjacent historic resources and their historic setting, the new bridge design shall follow guidance and direction provided in the Pier District Design Guidelines. In consideration of the proportions, window placement, and alignment with elements of Looff's Hippodrome and surrounding historic resources, the following features shall be studied: landings and horizontal structure lines; building openings; visible joint lines and glazing mullions.</p>	
<b>Physical Environment</b>		
<b>Hydrology and Floodplain</b>		
Because the proposed project would be located adjacent to and on the beach, the project would be built within a designated 100-year flood hazard area and a tsunami inundation area. However, historically, California has	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
<p>suffered little tsunami damage. Predictive models for distant tsunamis indicate that wave heights of 10 to 17 feet can be exceeded, on average, once every 500 years along Santa Monica Bay (McCulloch 1985). Furthermore, all bridge alternatives would be elevated on beams, which would reduce the potential for damage that tsunami-generated waves may pose.</p> <p>The project would not alter or change existing hydrologic conditions during either construction or operation. Therefore, with respect to flooding, no adverse impacts under NEPA or significant impacts under CEQA are expected.</p>		
Water Quality and Stormwater Runoff		
<p>Short-term or temporary construction impacts on water quality including the biological, physical/chemical and human use constituents have the potential to occur during demolition of the existing bridge and construction related to the new bridge.</p>	<p><b>WQ-1.</b> The proposed project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (Order No. R4-2012-0175, NPDES No. CAS004001) and the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent permits in effect at the time of construction.</p> <p><b>WQ-2.</b> The proposed project will comply with the Construction General Permit by preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP) to address issues related to construction activities, pieces of equipment, and materials that have the potential to affect water quality and risk levels. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include Best Management Practices (BMPs), such as sediment controls, catch basin inlet protection, construction materials management, and non-stormwater BMPs, to control pollutants. All work must conform to the construction site BMP requirements specified in the latest edition of the California Department of Transportation <i>Construction Site Best Management Practices Manual</i> to control and minimize the</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, waste management, materials handling, and other non-stormwater BMPs.	
<b>Geology/Soils/Seismicity/Topography</b>		
<p><b>Soil Erosion</b> Grading and excavation activities during construction would expose soils on the project site to wind and water erosion.</p> <p><b>Seismic Ground Shaking</b> The potential for surface ground shaking from distant earthquakes exists. No Alquist-Priolo Earthquake Fault Zones are located in the immediate project area.</p> <p><b>Landslides</b> The coastal bluffs are susceptible to earthquake-induced landslides. History of the bluffs shows significant potential for landslides, toppling blocks of soils, and slumps.</p> <p><b>Liquefaction/ Seismically Induced Settlement/Lateral Spreading</b> Sands along the beach and in the canyons are susceptible to liquefaction. Long-term settlement at the site is expected to be small as the proposed bridge would be supported on piles, and the piles would be designed to withstand any anticipated settlement. Lateral spreading of the bluff is expected to be low.</p>	<p>In general, with respect to construction of either build alternative, geologic and seismic hazards can be effectively mitigated by employing sound engineering practices in the design and construction of the replacement bridge as well as associated structures. However, because of the potential for strong seismic ground shaking, soil liquefaction, and unsuitable soil conditions such as expansive soils, which would be applicable to both build alternatives, the measure below would be implemented.</p> <p><b>GEO-1.</b> The following actions shall be incorporated into the project:</p> <ul style="list-style-type: none"> <li>• Removal of unsuitable subgrade soils and replacement with engineered fill,</li> <li>• Use of coated or non-metallic (i.e., concrete or polyvinyl chloride [PVC]) pipes that are not susceptible to corrosion,</li> <li>• Construction of foundations using sulfate-resistant concrete,</li> <li>• Support of structures on deep-pile foundation systems,</li> <li>• Densification of compactable subgrade soils with in-situ techniques, and</li> <li>• Placement of moisture barriers above and around expansive subgrade soils to help prevent variations in soil moisture content, where applicable.</li> </ul>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>
<b>Paleontology</b>		
Construction of the build alternatives could affect, disturb, or destroy buried paleontological resources present within the project footprint.	<b>PAL-1.</b> Because of the paleontological potential of the older Quaternary alluvium, a qualified vertebrate paleontologist shall be retained by the City or construction contractor to oversee monitoring during earthmoving activities with the potential to affect this formation. Excavations can be monitored by a qualified paleontological monitor under the supervision of the	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>qualified paleontologist. Deep-drilled, poured-in-place concrete shafts will be monitored only if possible (e.g., during initial clearing and grading of the shaft sites). Monitoring of earthwork in the older Quaternary alluvium will reduce potential impacts to a less-than-significant level.</p> <p>Monitoring may be reduced if the potentially fossiliferous unit described herein is, upon exposure and examination by qualified paleontological personnel, determined to have low potential for containing fossil resources.</p> <p>The paleontological monitor shall be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Fossils collected, if any, shall be transported to a paleontological laboratory for processing where they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and then deposited in a designated paleontological curation facility such as the LACM.</p> <p>Following analysis, a report of findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify</p>	



Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	completion of the program to mitigate impacts on paleontological resources.	
<b>Hazardous Waste/Materials</b>		
<p>The proposed project has the potential to result in the disturbance or release of hazardous materials. Because of the age of the existing bridge, the potential exists for asbestos-containing building materials and lead-based paint to be present. Groundwater is expected to be encountered and, if the groundwater is contaminated, it could result in an impact for construction personnel. However, all construction projects are required to comply with local, state, and federal requirements for storing hazardous wastes and worker training for handling hazardous wastes.</p>	<p><b>HAZ-1.</b> Prior to demolition work associated with the proposed improvements, ACBM and LBP surveys would be conducted to determine the presence of these materials. If discovered on site, asbestos and LBP hazards shall be abated in accordance with South Coast Air Quality Management District Rule 1403 prior to any demolition or bridge rehabilitation activities.</p> <p><b>HAZ-2.</b> In accordance with hazardous waste concerns relative to the final project design plans, the following shall be provided to the Caltrans Office of Environmental Engineering for informational purposes:</p> <ul style="list-style-type: none"> <li>• Final construction documents and plans for the preferred alternative,</li> <li>• A hazardous waste Sampling and Analysis Plan, and</li> <li>• A Site Investigation Report for ADL, which shall be performed to determine the extent of possible contamination within the state right-of-way.</li> </ul> <p>The detailed construction document/plans shall include design features and information showing proposed structure/foundation work (i.e., footing/pile types, pile lengths, maximum excavation depths) and the new right-of-way. Based on the detailed construction document/plans, the following shall also be submitted to Caltrans Office of Environmental Engineering for informational purposes:</p> <ul style="list-style-type: none"> <li>• Sampling and Analysis Plan (including a Health and Safety Plan) for soil and groundwater (including ADL),</li> <li>• Asbestos-Containing Material and Lead-Based Paint Survey Work Plan for bridge demolition work (discussed above in HAZ-1), and</li> <li>• Draft and Final Site Investigation Report, Asbestos-Containing Material Report, and Lead-Based Paint Survey Report.</li> </ul> <p>Based on the Site Investigation Report and investigative results, the City will be required to prepare the necessary construction</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>plans and specifications for remediation of hazardous materials (including soil and groundwater) as necessary. The specifications shall comply with current Caltrans Standard Special Provisions (SSPs) and Standard Plans. In addition, the City shall review and incorporate Caltrans SSPs for work related to:</p> <ul style="list-style-type: none"> <li>• Disturbance of material containing hazardous waste with concentrations of ADL,</li> <li>• Removal of material containing hazardous waste with concentrations of ADL,</li> <li>• Removal of yellow traffic stripes and pavement markings with hazardous waste residue,</li> <li>• Disturbance of existing paint on bridges,</li> <li>• Removal of treated wood waste, and</li> <li>• Removal of traffic stripes and pavement markings containing lead.</li> </ul> <p><b>HAZ-3.</b> Although contaminated soil is unlikely to be present on the project site, the contractor shall observe exposed soil for odor and/or visual evidence of contamination during excavation activities. If odiferous, stained, or discolored soil is discovered by the contractor during excavation or grading activities, all work shall stop and an investigation shall be designed and performed to verify the presence and extent of contamination at the site. A qualified and approved environmental consultant shall perform the review and investigation. Results shall be reviewed and approved by the applicable local and state agencies prior to construction. The investigation shall include collecting samples for laboratory analysis and quantifying contaminant levels within the proposed excavation and surface disturbance areas. Subsurface investigation shall determine appropriate procedures for worker protection and hazardous material handling and disposal procedures appropriate for the project site.</p> <p><b>HAZ-4.</b> Areas with contaminated soil that has been determined to be hazardous waste shall be excavated by personnel who have been trained through the Occupational Safety and Health Administration—recommended 40-hour safety program (29 Code of Federal Regulations 1910.120), with an approved plan for</p>	

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>excavation, control of contaminant releases to the air, and off-site transport or on-site treatment. Health and safety plans prepared by a qualified and approved industrial hygienist shall be developed to protect the public and all workers in the construction area. Health and safety plans shall be reviewed and approved by the appropriate local and state agencies.</p> <p><b>HAZ-5.</b> Should construction activities result in the removal of yellow or white painted or thermoplastic traffic stripes, the age of the traffic striping shall be determined. If lead or chromium is present in the materials at or above specified hazardous waste levels, it shall be appropriately captured and transported, then disposed of at a permitted Class I disposal facility in California. In addition, a project-specific Lead Compliance Plan shall be required to prevent or minimize worker exposure to lead while handling materials containing lead. Attention shall be directed to Title 8, California Code of Regulations, Section 1532.1, Lead.</p> <p><b>HAZ-6.</b> Although there is no evidence that groundwater in the vicinity of the pier contains contaminants, excavations below the elevation of groundwater could experience strong seepage and require dewatering. The contractor shall observe groundwater for visual evidence of contamination or unusual odors. The contractor shall comply with all applicable regulations and permit requirements for construction dewatering. This may include laboratory testing, treatment of contaminated groundwater, or other disposal options.</p>	
<b>Air Quality</b>		
<p>During construction, short-term degradation of air quality may occur because of the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment are also anticipated. These would include carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), reactive organic gas (ROG), directly emitted particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and toxic air contaminants (i.e., MSATs), such as diesel exhaust particulate matter.</p>	<p>The proposed project would be subject to SCAQMD Rule 403, the purpose of which is to reduce the amount of particulate matter entrained in the ambient air. In addition, implementation of Mitigation Measure AQ-1 would reduce emissions of criteria pollutants and localized effects during the construction period.</p> <p><b>AQ-1.</b> To reduce particulate matter exhaust emissions, the City (or its contractors) shall ensure that all off-road diesel-powered equipment rated at 50 brake horsepower and greater used during construction shall meet EPA Tier 4 emissions standards, or better, except construction equipment for which such emissions control technology is not available.</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>Most construction-related impacts on air quality are short term and, therefore, do not result in long-term adverse conditions. Implementation of the following avoidance and minimization measures, some of which may also be required for other purposes, such as stormwater pollution control, would reduce any air quality impacts resulting from construction activities:</p> <ul style="list-style-type: none"> <li>• The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (2018). <ul style="list-style-type: none"> <li>• Section 14-9-02 specifically requires the contractor to comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.</li> </ul> </li> <li>• Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion, either at the point of emission or at the right-of-way line, depending on local regulations.</li> <li>• Soil binder will be spread on any unpaved roads used for construction purposes and on all project construction parking areas.</li> <li>• Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel, as required by California Code of Regulations Title 17, Section 93114.</li> <li>• A dust control plan will be developed, documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes, as needed, to minimize construction impacts on existing communities.</li> <li>• Equipment and material storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.</li> <li>• Environmentally sensitive areas, or their equivalent, will be established near sensitive air receptors. Within these areas, construction activities involving extended idling of diesel equipment or vehicles will be prohibited, to the extent</li> </ul>	

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>feasible.</p> <ul style="list-style-type: none"> <li>Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.</li> <li>All transported loads of soils and wet materials will be covered before transport or adequate freeboard (i.e., the space from the top of the material to the top of the truck) will be provided to minimize emissions of dust (particulate matter) during transportation.</li> <li>Dust and mud deposited on paved public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.</li> <li>To the extent feasible, construction traffic will be scheduled and routed so as to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.</li> <li>Mulch will be installed or vegetation planted as soon as practical after grading to reduce windblown particulate in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emissions; therefore, it may be necessary to use controls, such as dampened straw.</li> </ul>	
<b>Noise</b>		
During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by the City's Municipal Code, Section 4.12.110. This section restricts construction noise by placing limits on the hours of construction operations and the noise levels produced during certain periods of time. Noise levels from construction would not result in an increase beyond the thresholds outlined in the City's Municipal Code.	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
<b>Energy</b>		
<p>During construction, energy would be required related to use of construction equipment and vehicle trips for commute and hauling purposes. Although fuel would be consumed by construction vehicles and equipment, this would be a temporary condition and would represent only a negligible increase in regional demand relative to the fuel consumption of on-road fuels currently used in the state. Given the extensive network of fueling stations throughout the project vicinity and the short-term construction period, no new or expanded sources of energy or new infrastructure would be required to meet the energy demand associated with project construction.</p> <p>Additionally, because compliance with stringent building and vehicle efficiency standards is mandated to mitigate the cumulative energy impacts of the proposed project and all other projects and development in the service areas, the proposed project is not expected to result in a substantial contribution toward a cumulatively considerable energy impact.</p>	No mitigation is required.	<p>NEPA: Not Adverse CEQA: Less than Significant</p>
<b>Biological Environment</b>		
<b>Natural Communities</b>		
No habitat or natural communities of special concern exist within the BSA or surrounding areas. All improvements would occur within areas that are already developed.	<p>Under the National Environmental Policy Act (NEPA) and CEQA, no impacts on natural communities of special concern or migratory corridors would occur with implementation of Build Alternatives 1 or 2 (LPA) because none are present within the BSA. Therefore, mitigation measures for natural communities of concern and migratory corridors are not required. All improvements would occur within areas that are already developed. However, measure BIO-1 would be implemented to limit the extent of the construction impact on sandy beach habitat adjacent to the project area.</p> <p><b>BIO-1.</b> All construction-related work, including staging, storage, and access, shall be limited, to the greatest extent feasible; shall occur within the project limits; and shall not encroach upon the sandy beach habitat adjacent to the project area</p>	<p>NEPA: Not Adverse CEQA: Less than Significant</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
<b>Wetlands and Other Waters</b>		
Federal and state jurisdictional waters would be completely avoided during all project-related work. However, because the project would occur within the Coastal Zone, the project would be subject to the Coastal Zone Management Act (CZMA) and require a Coastal Development Permit from the California Coastal Commission.	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant
<b>Plant Species</b>		
The project footprint contains a limited and marginal area of low-quality suitable habitat; any potential impacts on any non-listed special-status plant species would be less than significant under CEQA and not adverse under NEPA.	Non-listed special-status plant species have very low potential to occur within the BSA. Avoidance and minimization measure BIO-1., as stated above, would fully avoid any potential for impacts on these species.	NEPA: Not Adverse CEQA: Less than Significant
<b>Animal Species</b>		
<p>Project activities may cause direct and/or indirect disturbance to the Tree Roosting Bat species in the form of tree disturbance, tree removal, or noise adjacent to trees. Removal of the Pier Bridge has potential to directly affect any species that may be roosting or nesting within the bridge joints and hinges.</p> <p>Impacts on nesting birds could occur if an active nest is removed or nesting birds are disturbed as a result of construction activities.</p>	<p>The following measures apply to both Build Alternatives 1 and 2 (LPA) to avoid and minimize impacts on non-listed special-status animal species and nesting birds and raptors protected under the MBTA and California Fish and Game Code.</p> <p><b>BIO-2.</b> To avoid impacts on bats that may be roosting in palm trees within the project area, direct impacts on unmanicured palms with dead fronds shall be avoided during construction, and activities that cause high levels of vibration and/or noise, within 500 feet, shall also be avoided. If it is not possible to avoid direct impacts (e.g., tree removal, tree disturbance, tree trimming), as well as indirect impacts (e.g., noise, vibration), a qualified bat biologist shall survey the trees in the project area (i.e., conduct acoustic nighttime surveys) prior to disturbance to determine whether bats are roosting. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning.</p> <p>If bats are present, the bat biologist shall monitor construction activities to ensure that bats are not affected. The qualified bat biologist may also provide other avoidance measures to ensure that impacts are avoided and minimized.</p> <p><b>BIO-3.</b> A qualified bat biologist who is also familiar with crevice-dwelling bird species shall survey the project disturbance limits and the Pier Bridge in early summer, prior to construction, to assess the potential for the bridge's use for bat roosting, bat</p>	NEPA: Not Adverse CEQA: Less than Significant

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>maternity roosting, and bird roosting/nesting (maternity roosts and nests generally form in spring). The qualified bat biologist shall also perform preconstruction surveys within 2 weeks of construction because bat and bird roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning and the City.</p> <p><b>BIO-4.</b> If recommended by the qualified bat biologist, to avoid indirect disturbance of bats and birds while roosting in areas that would be subject to or adjacent to impacts from construction activities, any portion of a structure that is deemed by a qualified bat biologist to have potential bat or bird roosting habitat, in areas where the young have the ability to fly and may be affected by the proposed project, shall have temporary bat/bird eviction and exclusion devices installed under the supervision of the qualified bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion will be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks, and must be continued to keep the structures free of bats and birds until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW). Work shall cease around any active bat maternity colony until such time that the young have the ability to fly, as determined by a qualified bat biologist.</p> <p><b>BIO-5.</b> Within 7 days of the commencement of construction activities (if between January 15 and September 1), a qualified biologist shall perform a nesting bird survey to determine whether there are active migratory bird nests within 200 feet of the project footprint and raptor nests within 500 feet of the project footprint. If present, this survey shall identify the species and, to the degree feasible, nesting stage (e.g., incubation of</p>	



Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	young, feeding of young, near fledging). Nests shall be mapped to the nearest location feasible without causing disturbance (close encroachment may cause nest abandonment). If active nests of non-listed migratory birds are found, construction shall not occur within a buffer until the nesting attempt has been completed and/or abandoned because of non-project-related reasons. The buffer distance for non-listed migratory birds shall be determined by the project biologist, depending on the species' requirements, sensitivity to disturbance, and project activities. Construction shall not occur within 500 feet of a raptor's nest until the nesting attempt has been completed and/or abandoned because of non-project-related reasons. If a nest of a special-status migratory bird (either federal or state listed or non-listed) is found, an appropriate buffer distance shall be determined, based on the species' nesting requirements and sensitivity to disturbance, in consultation with the appropriate wildlife agencies (i.e., CDFW and/or USFWS), depending on the species' status. A copy of all survey results and any agency coordination shall be forwarded to Caltrans' Division of Environmental Planning and the City.	
<b>Threatened Species</b>		
There is no potential for federal or state listed species to occur within the project area. Additionally, no federally designated critical habitat is present within the biological study area (BSA).	No mitigation is required.	NEPA: Not Adverse CEQA: Less than Significant
<b>Invasive Species</b>		
Because of the developed and maintained nature of the project area, the lack of invasive species in the BSA, and the lack of sensitive or native habitats adjacent to the BSA, the potential of the project alternatives to spread or introduce invasive plant or animal species or cause or exacerbate an invasion would be low. Project Alternatives 1, 2, and 3 are not expected to introduce or spread invasive plant or animal species, and compliance with EO 13112 would be ensured with implementation of measures BIO-6 and BIO-7.	In compliance with EO 13112, weed control would be performed to minimize the importation of nonnative plant material during and after construction. Eradication strategies would be employed should an invasion occur. Measures to address issues related to the abatement and eradication of invasive species would be included in the project design and contract specifications. These measures include BIO-6 and BIO-7, below. <b>BIO-6.</b> Construction equipment shall be inspected and cleaned prior to mobilization to the project site to minimize the importation of nonnative plant material. Eradication strategies	NEPA: Not Adverse CEQA: Less than Significant

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>(e.g., weed control) shall be implemented should an invasion of nonnative plant species occur.</p> <p><b>BIO-7.</b> After construction, species with a high or moderate rating on Cal-IPC's California Invasive Plant Inventory, including any Cal-IPC-listed species of ice plant, shall not be planted in any revegetated areas.</p>	
<b>RDEIR/EA Appendix A – Section 4(f) Analysis</b>		
<p>The proposed project build alternatives would result in temporary and permanent incorporation of portions of the Santa Monica Pier and the historic Pier Sign. With implementation of mitigation measures, the use of the Santa Monica Pier and Pier Sign would potentially be considered to have no adverse effect. Additionally, there is the potential for the use of the Marvin Braude Bike Trail, Ocean Front Walk, Carousel Park and Loeff's Hippodrome, due to the adjacency of construction activities, however no adverse effect is anticipated. The project's construction adjacency to Palisades Park has the potential to for a use under Section 4(f), with no adverse effect.</p>	<p><b>CR-3.</b> Prior to the start of construction, the City shall prepare an Adjacent Structure Monitoring Plan (Monitoring Plan) to safeguard adjacent historic resources, including the Loeff's Hippodrome and the locally designated buildings at 1601–1619 Ocean Front Walk, during construction from damage due to vibration, demolition, excavation, and general construction activities and to mitigate the possibility of settlement due to the removal of soil.</p> <p>The Monitoring Plan will define protective measures specific to individual historic resources; assign monitoring responsibilities; install and maintain construction fencing for screening and security; and ensure safe public circulation and access during construction. Any protective measures shall be designed and installed in such a way that they are completely reversible with no impacts on historic resources. As part of the Monitoring Plan, prior to construction the project site and adjacent historic resources will be photographed to record their existing pre-construction condition and character-defining features to be kept on file with the publicly accessible property records at the City of Santa Monica.</p> <p>The Monitoring Plan shall be prepared by a qualified and California-licensed Professional Engineer who is approved by the City of Santa Monica. The Monitoring Plan shall be developed in conjunction with a qualified architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards in their respective field(s), pursuant to 36 CFR 61.</p> <p>The Monitoring Plan shall include performance standards that specify:</p>	<p>NEPA: Proposed- Use (no adverse effect) &amp; Temporary Occupancy Exemption</p> <p>CEQA: Section 4(f) is only applicable under NEPA</p>

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<ul style="list-style-type: none"> <li>• All new construction work will be performed so that adjacent buildings and resources, including Looff's Hippodrome and 1601–1619 Ocean Front Walk buildings, will not be adversely affected.</li> <li>• A qualified and California-licensed Professional Engineer will develop monitoring recommendations, based on preconstruction surveys and photo documentation of existing conditions of adjacent historic resources. Monitoring may include the use of vibration monitors, elevation and lateral monitoring points, crack monitors, or other instrumentation determined necessary to protect adjacent buildings and structures from construction-related damage.</li> <li>• Vertical and horizontal movement will be determined by a California-licensed land surveyor or qualified professional engineer, and vibration thresholds will be maintained to levels below that which could damage adjacent buildings.</li> <li>• If thresholds are met, or if noticeable structural damage becomes evident to the project contractor, work shall stop until feasible steps to reduce vibratory levels have been undertaken and minimization measures have been implemented to stabilize adjacent building and prevent construction-related damage. Any damage to historic finish materials at nearby buildings shall be repaired in consultation with the affected property owner and a qualified preservation consultant and, if warranted, in a manner that meets the Secretary of the Interior's Standards.</li> <li>• If necessary, as determined by a California-licensed Professional Engineer, a shoring plan will be developed to protect adjacent historic resource from excavation or general construction procedures. The shoring plan will be developed by the contractor and submitted to the City of Santa Monica for review.</li> </ul> <p><b>CR-4.</b> Prior to any construction starting, the Pier Sign Preservation Plan shall be prepared and implemented to ensure the protection of the Pier Sign throughout the construction phase.</p> <p><b>CR-5.</b> All modifications to the Pier deck that are visible will be reconstructed and replaced in kind so as to maintain the historic</p>	

Potential Environmental Impacts	Mitigation Measures	Impact after Mitigation
	<p>character of the Pier, with new materials matching the original/old design, color, texture, and other visual qualities. All such work shall be accurately reproduced, based on historical, pictorial, and physical documentation and evidence. A Certificate of Appropriateness, approved by the City of Santa Monica Landmarks Commission, is also required.</p> <p><b>CR-6.</b> To ensure a compatible replacement bridge avoids significant adverse effects to adjacent historic resources and their historic setting, the new bridge design shall follow guidance and direction provided in the Pier District Design Guidelines. In consideration of the proportions, window placement, and alignment with elements of Loeff's Hippodrome and surrounding historic resources, the following features shall be studied: landings and horizontal structure lines; building openings; visible joint lines and glazing mullions.</p>	

# **Chapter 1    The Proposed Project**

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## **1.1    Introduction**

The City of Santa Monica (City), in coordination with the California Department of Transportation (Caltrans), is proposing to replace the Santa Monica Pier Bridge (Pier Bridge). The proposed Santa Monica Pier Bridge Replacement Project (proposed project) would include replacement of the existing, seismically deficient Pier Bridge with a new multi-modal bridge to meet current seismic standards. The proposed project is subject to both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA) because it would be funded under the federal Highway Bridge Program (HBP). This joint recirculated draft environmental impact report/environmental assessment (recirculated Draft EIR/EA) analyzes the potential environmental impacts of the proposed project. The City is the lead agency under CEQA, and Caltrans (under its delegation authority from the Federal Highway Administration [FHWA]) is the lead agency under NEPA.

### **1.1.1    Background**

This proposed project is included in the 2017 Federal Statewide Transportation Improvement Program and proposed for HBP funding. The federal project number is BHLO-5107(033). The Pier Bridge qualifies for replacement under the HBP and is eligible for toll-credit funding. It is also identified as a transportation project in the Southern California Association of Governments 2020 Regional Transportation Plan/Sustainable Communities Strategy.

A Draft EIR/EA for the proposed project was circulated for an extended 94-day public review period from December 11, 2017, to March 15, 2018, and a public meeting was held on January 10, 2018. Substantial comments were received concerning both the range of alternatives under consideration and the perceived impacts associated with those alternatives. Therefore, a reexamination of the alternatives was undertaken, which has resulted in the formulation of the current build alternatives presented in this document. In addition, since release of the Draft EIR/EA, there have been several changes to the existing conditions, resulting in new substantial information. These changes include (1) the identification of new historical resources, such as a new historic district, and designation of Carousel Park as a local City landmark, and (2) the designation of new scenic corridors as part of the City's Final Draft 2018 Land Use Plan of the Local Coastal Program.

For the reasons stated above, the City of Santa Monica and Caltrans have determined that the Draft EIR/EA should be recirculated for public comment. Revisions to the content of the environmental document have been made to reflect the new range of alternatives and incorporate new information.

### **1.1.2    Project Location**

The project area is in the southwestern portion of Los Angeles County, in the City of Santa Monica. The project site is the Pier Bridge, which connects the intersection of Ocean Avenue and Colorado Avenue to the Santa Monica Pier. The Pier Bridge was constructed in 1939 and is 488 feet long. It stretches west from the intersection of Ocean Avenue and Colorado Avenue to

the Santa Monica Pier in the city of Santa Monica. The Pier Bridge extends from the bluff at Ocean Avenue and Colorado Avenue; down the bank; over the separated dual carriageway of Moomat Ahiko Way (MAW), as well as Appian Way; to the base of Santa Monica Pier. At its western end, the project site is within, and adjacent to, Santa Monica State Beach; the site is bordered by the Pacific Ocean on the west. Santa Monica Pier opened in 1909, and Pacific Park, an amusement park on the Pier, opened in 1996. Together, they form a major tourist attraction that includes the last West Coast amusement park located on a pier.

North of the project site, Palisades Park extends from the bluff to Pacific Coast Highway. At the top of the bluff, residential, commercial, institutional, and recreational uses are located east of the pier. These include Santa Monica City Hall, the Rand Corporation office building, Santa Monica Courthouse, and Tongva Park. To the south are commercial and residential uses as well as hotels, such as the Loews Santa Monica and Hotel Casa del Mar. North and south of the Pier Bridge are surface parking, commercial, and residential uses. Figures 1-1 and 1-2 show the regional location and project vicinity.

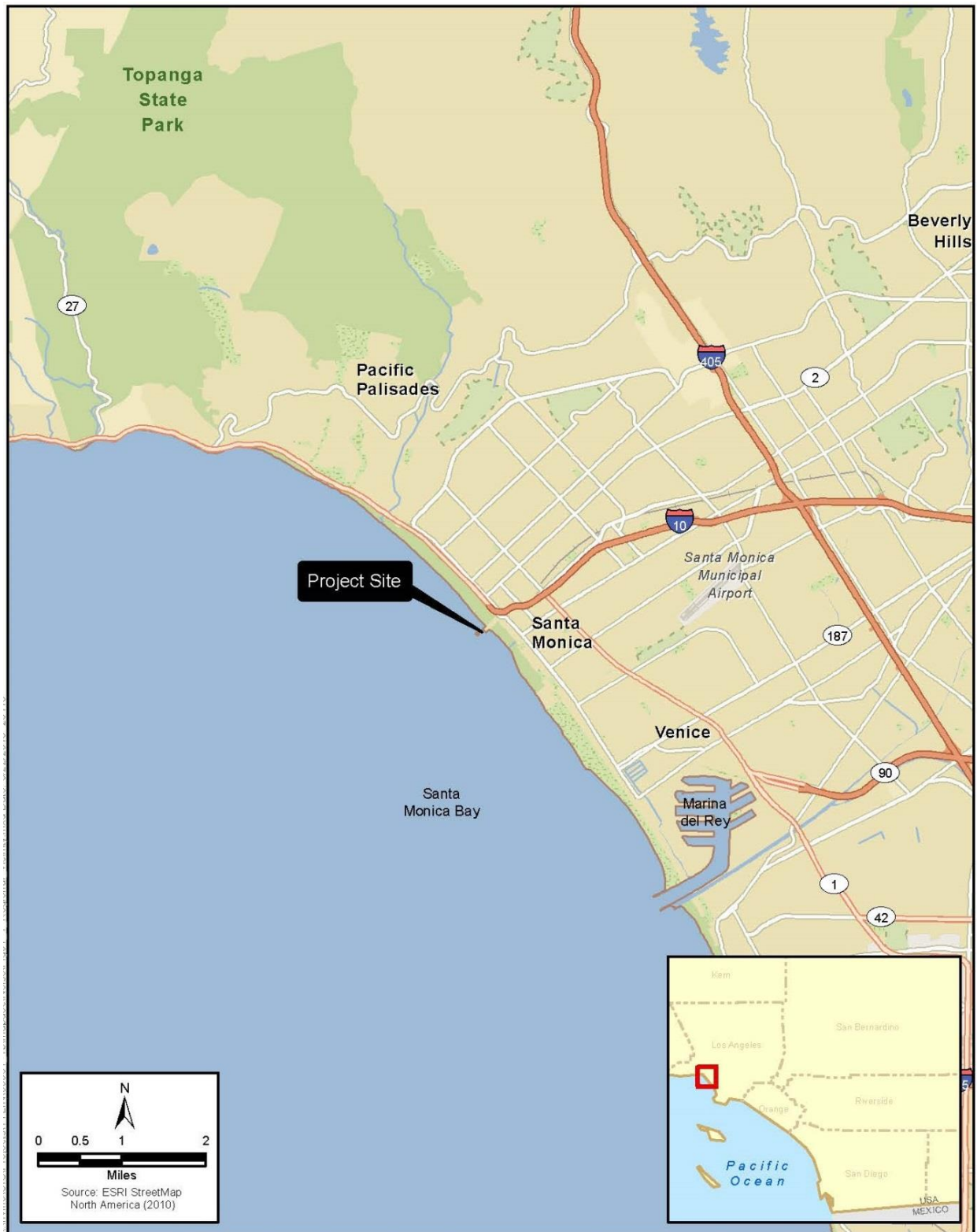
## **1.2 Purpose and Need**

In accordance with 40 Code of Federal Regulations 1502.12, this chapter provides an explanation of the “underlying purpose and need to which the agency is responding in proposing the alternatives, including the proposed action.”

### **1.2.1 Project Purpose**

The purpose of the proposed replacement bridge is to provide a seismically safe bridge for vehicular, bicycle, and pedestrian use. The primary purposes and objectives of the proposed project are as follows:

- To provide a bridge that is structurally sound and seismically resistant;
- To provide a bridge with a 75-year design life;
- To ensure adequate and safe access to the pier for all users, including pedestrians, persons with limited mobility, bicyclists, motorists, and delivery and emergency vehicles;
- To improve bicycle and pedestrian access to the pier;
- To preserve visual resources, including the Ocean Front Walk scenic view corridor;
- To ensure the economic viability of existing businesses by improving access to the pier and the historic Looff Hippodrome;
- To preserve the historic character of the pier and adjacent historic structures while improving access to the pier; and
- To provide a bridge that maintains access for emergency vehicles, including police, fire, and harbor guard vehicles.



Source: ICF, 2016.

**Figure 1-1. Regional Location**

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Source: ICF, 2019.

**Figure 1-2. Project Vicinity**

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## 1.2.2 Project Need

The Pier Bridge connects the iconic Santa Monica Pier to the intersection of Ocean Avenue and Colorado Avenue within the downtown district of the city. This section describes existing bridge conditions, including the seismic deficiencies of the existing bridge, the steep bridge grade and profile constraints, and the challenges associated with providing improved access for all individuals because of these existing conditions. This section also describes current deficiencies with respect to accommodating all the different travel modes, which create safety concerns. Finally, this section describes modal interrelationships and the important linkages to the transportation, access, and circulation system provided by the bridge. Figure 1-3 shows the existing conditions surrounding the project site.

### 1.2.2.1 Structural Deficiencies

The Pier Bridge, which was constructed in 1939 by the federal Works Progress Administration, is 488 feet long and 34 feet wide. It once included two 4-foot-wide sidewalks; however, pedestrians frequently overflowed into vehicular lanes, thereby raising safety concerns. In response, the bridge was reconfigured to provide two vehicular travel lanes and one 9.33-foot-wide pedestrian walkway on the north side, which is separated by a temporary concrete traffic barrier (i.e., K-rail). Photo 1-1 shows the existing configuration of the bridge as well as pedestrian overflow. As with all bridges of this era in a seismically active region of Southern California, the original construction does not meet the current seismic standards of the American Association of State Highway and Transportation Officials (AASHTO) or the Caltrans Seismic Design Criteria (SDC). Seismic deficiencies that do not meet current AASHTO or SDC requirements include:

- Lap splices at the base of columns,
- Insufficient amount of confinement reinforcement in the bridge columns,
- Absence of spiral reinforcing in concrete columns,
- Lack of adequate seat width at abutments and hinges, and
- Inadequate footing capacity for lateral loading.

**Photo 1-1. Current Overflow of Pedestrians into Vehicular Lanes**



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Source: ICF, 2017.

Figure 1-3. Existing Site Conditions

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The deficiencies make it very difficult for the existing bridge to withstand a major earthquake without incurring significant damage to the columns and potentially threatening overall bridge integrity. In addition, the bridge has concrete that is cracked, delaminated, and broken off in many locations along the length of the bridge, exposing reinforcing steel to both saltwater and air and accelerating corrosion. The existing bridge is seismically deficient and has a physically deteriorated condition.

Bridges that are found to be seismically deficient, as defined by FHWA, with a sufficiency rating of less than 50 (on a scale of 100), are eligible for federal funding for replacement under the Highway Bridge Program (HBP). According to the Caltrans Structure Maintenance and Investigations Local Agency Bridge List, dated July 2018, the bridge currently has a sufficiency rating of 17.0, well below the threshold for HBP financial support. It should be noted that bridge sufficiency ratings typically decline somewhat over time because of bridge deck, superstructure, and substructure deterioration.

The HBP sufficiency rating is applicable to all bridges that carry either highway or local vehicular traffic. Because of the need for emergency and delivery vehicles to access businesses, the Pier Bridge will always carry vehicular traffic, even if were to be closed to public vehicular traffic.

Because the bridge is seismically deficient and has a sufficiency rating of less than 50, it is eligible for complete replacement with federal funding, according to Chapter 6 of Caltrans Local Assistance Program Guidelines. In addition to the HBP rating, Caltrans also uses a bridge health rating to identify the structural condition of bridges. Ratings of “good,” “fair,” or “poor” identify a bridge’s overall condition, based on the lowest rating for the bridge deck, superstructure, or substructure. The Pier Bridge currently has a Caltrans bridge health rating of “fair.” In August 2006, the City prepared a Draft EIR/EA to rehabilitate, seismically retrofit, and widen the bridge by 12 feet. This project was later cancelled because Caltrans local assistance and HBP administrators within Caltrans decided that rehabilitation would not be cost effective because a rehabilitated bridge would require more maintenance than a new bridge constructed with modern materials that could withstand the marine environment. In addition, a retrofitted bridge would not meet current bridge design code requirements. Finally, federal funding could be used only for complete bridge replacement.

To support the aforementioned project, a seismic analysis of the Pier Bridge, including a widened 12-foot section to the north, was performed in 2008; that analysis is appended to this recirculated Draft EIR/EA (see Appendix F). The analysis found the bridge columns had insufficient displacement and shear capacity, indicating that the bridge could collapse, and design seismic hazards, as defined by the Caltrans SDC. Based on the seismic analysis, including existing structural details, the Pier Bridge does not meet Caltrans’ “no collapse” seismic performance standard, which is intended to protect human life. The latest bridge inspection report is appended to this recirculated Draft EIR/EA (see Appendix G).

The Pier Bridge could be retrofitted rather than completely replaced. However, that would not restore the bridge to a state that would meet either current AASHTO or Caltrans SDC requirements.

The Pier Bridge is currently not eligible for listing on the National Register of Historic Places, according to the Caltrans Structure Maintenance and Investigations Historic Bridge Inventory, which is also appended to this recirculated Draft EIR/EA (see Appendix H).

Bridges with a sufficiency rating between 50 and 80 are typically eligible for only rehabilitation work; those with a sufficiency rating below 50 are eligible for replacement. The Pier Bridge sufficiency rating is less than 50; therefore, federal funding is available to support replacement of the bridge.

Because the City desires to provide a replacement structure that meets current seismic design requirements, with minimal future maintenance costs, the City, as well as Caltrans, has therefore elected to replace the bridge.

### **1.2.2.2 Bridge Grade and Profile Constraints**

The existing bridge has a straight east–west alignment from Ocean Avenue to the pier, with a maximum grade of 10.2 percent and a drop in elevation of 36 feet from its crest to the pier deck, without intermediate landings. Photo 1-2 shows the steep grade change between the top of the bridge and the landing at the pier.

**Photo 1-2. Steep Grade of the Santa Monica Pier Bridge**



The bridge grade is controlled by several streets that cross under the bridge, such as MAW and Appian Way. The current vertical clearance above MAW is 15 feet (the minimum for city streets, per Caltrans *Highway Design Manual*). Therefore, the bridge grade cannot be altered by lowering its profile without having an adverse effect on the road network below or requiring an exception to the requirements for minimum vertical clearance.

As part of initial planning for the proposed project, consideration was given to lowering MAW in order to lower the bridge profile and thereby decrease the bridge grade. However, in addition to the constraints noted above, the profile of MAW is controlled by the adjacent Caltrans-owned McClure Tunnel, which serves Pacific Coast Highway. Lowering MAW would require increasing the grade of the approach roadway under the Pier Bridge and reducing the vehicular sight distance on MAW to a point that would be below minimum state



requirements. These constraints would make alterations to the existing grade of the Pier Bridge infeasible.

### **1.2.2.3 Americans with Disability Act**

Currently, the primary Americans with Disability Act– (ADA-) compliant access route to the pier is from Ocean Boulevard to MAW to Ocean Front Walk to the ramp to the pier, within the sidewalk portion of the existing bridge (i.e., at the same slope as the vehicle/bicycle lanes). Because the sidewalk (pedestrian access route) is contained within the bridge, which is a street, the slope of the sidewalk is allowed to be the same as the adjacent street grade (United States Access Board Public Rights-of-Way Accessibility Guidelines 302.5, California Building Code 11B-403.3, Caltrans Design Information Bulletin 82-06 4.3.4). The existing bridge is, and can continue to be, used by those with limited mobility (see Photo 1-3). However, current ADA standards for pedestrian paths separated from adjacent streets recommend a maximum grade of 8.33 percent, with intermediate landings spaced to accommodate every 2.5-foot change in elevation, or a 5% maximum continuous grade.

**Photo 1-3: Difficulty of Uphill Travel for Disabled Pier Visitors on the Pier Bridge**



### **1.2.2.4 Circulation, System Linkages, Modal Interrelationships, and Safety Concerns**

The bridge serves as the primary access route for pedestrians and bicyclists as they travel to the pier and beach. In addition, it provides the only vehicular access route to the pier for various vendors, special events, pier businesses, pier deck parking, pier maintenance, and delivery and emergency vehicles. The bridge is vital to the function of the pier in that it provides direct public access from the downtown Santa Monica area including the Downtown Station for the Metro E light rail, as shown in Figure 1-4. It also provides direct public access to Santa Monica State Beach via the pier, which is at the base of the bluffs below Palisades Park and Tongva Park.

Since completion of the Los Angeles County Metropolitan Transportation Authority (Metro) Exposition (Expo or E) light rail line and Colorado Esplanade in May 2016, there has been increased pedestrian and bicyclist use of the Pier Bridge. The Colorado Esplanade, between the Expo station at Fourth Street and Ocean Avenue, transformed Colorado Avenue into a multi-modal street with an extra-wide pedestrian walkway on the south side and a dedicated two-way cycle track on the south side of the street. The Colorado Esplanade also reconfigured the intersection of Second Street/Main Street and Colorado Avenue into a single intersection and modified vehicular traffic flow on Colorado Avenue, making it westbound only. Photo 1-5 shows the Colorado Esplanade. Given the high volume of pedestrians and bicyclists in the area, integrating Pier Bridge and pier access with the multi-modal Colorado Esplanade is critically important.

There is also a desire to improve bicycle access between the pier and the existing Beach Bike Trail below the pier. As part of a separate future project, the City is proposing a direct bicycle connection between the pier and the Beach Bike Trail. The proposed Pier Bridge replacement project would be designed so as not to preclude but, rather, allow construction of this adjacent future project.

Peak weekend average daily traffic (ADT) at the pier totals approximately 3,700, a mix of beach/amusement park patrons and service/delivery vehicles. However, the pedestrians and bicyclists who gain access to the pier and beach from Ocean Avenue represent the largest portion of bridge users.

Pier deck parking currently accommodates 277 vehicles. When the pier deck parking area is full, or during periods of high pedestrian usage, the bridge must be closed to vehicular traffic. At that point, the bridge then functions primarily as a pedestrian/bicycle facility, with cars using Lot 1 North, Lot 1 South, or other City parking facilities. It is notable that pier usage is heavy not only in the summer months but year-round. The second-busiest time for pier businesses is the winter holiday season. The Santa Monica Office of Pier Management estimates that between 6 and 10 million people visit the pier annually.

During times of high use, the bridge is not wide enough to accommodate the volume of pedestrians, bicycles, and vehicles that use the facility. Queuing affects the Colorado Avenue/Ocean Avenue intersection and other nearby intersections during peak periods, including other intersections throughout the broader downtown area. When the volume is high enough, pedestrian traffic overflows into the roadway, as shown in Photo 1-1. This creates safety concerns, which have been documented by both the City of Santa Monica Police and Fire Departments. Also, there is another point of pedestrian and vehicular conflict on the pier. The existing pedestrian crosswalk crosses southerly from the north side of the bridge to the pier deck where the pier access road joins the deck, as shown in Photo 1-4. This location is just before the vehicle turnaround area and entrance to the pier parking lot, which presents an unsafe condition. Finally, the staircase that connects Appian Way to the bridge has been closed for many years because of deterioration and damage sustained from the 1994 Northridge earthquake.

In summary, the existing bridge has the following deficiencies with respect to accommodating pedestrian, bicycle, and vehicular modes of travel:

- The bridge width does not provide an appropriate space for each travel mode;

- There are substantial points of conflict between pedestrians and vehicles where the Pier Bridge joins the pier, at a pedestrian crossing adjacent to the Hippodrome, and farther along the pier deck where vehicles turn left to the deck parking lot;
- The bridge's attached, but deteriorated, staircase that connects to Appian Way has been closed for many years because of safety concerns.

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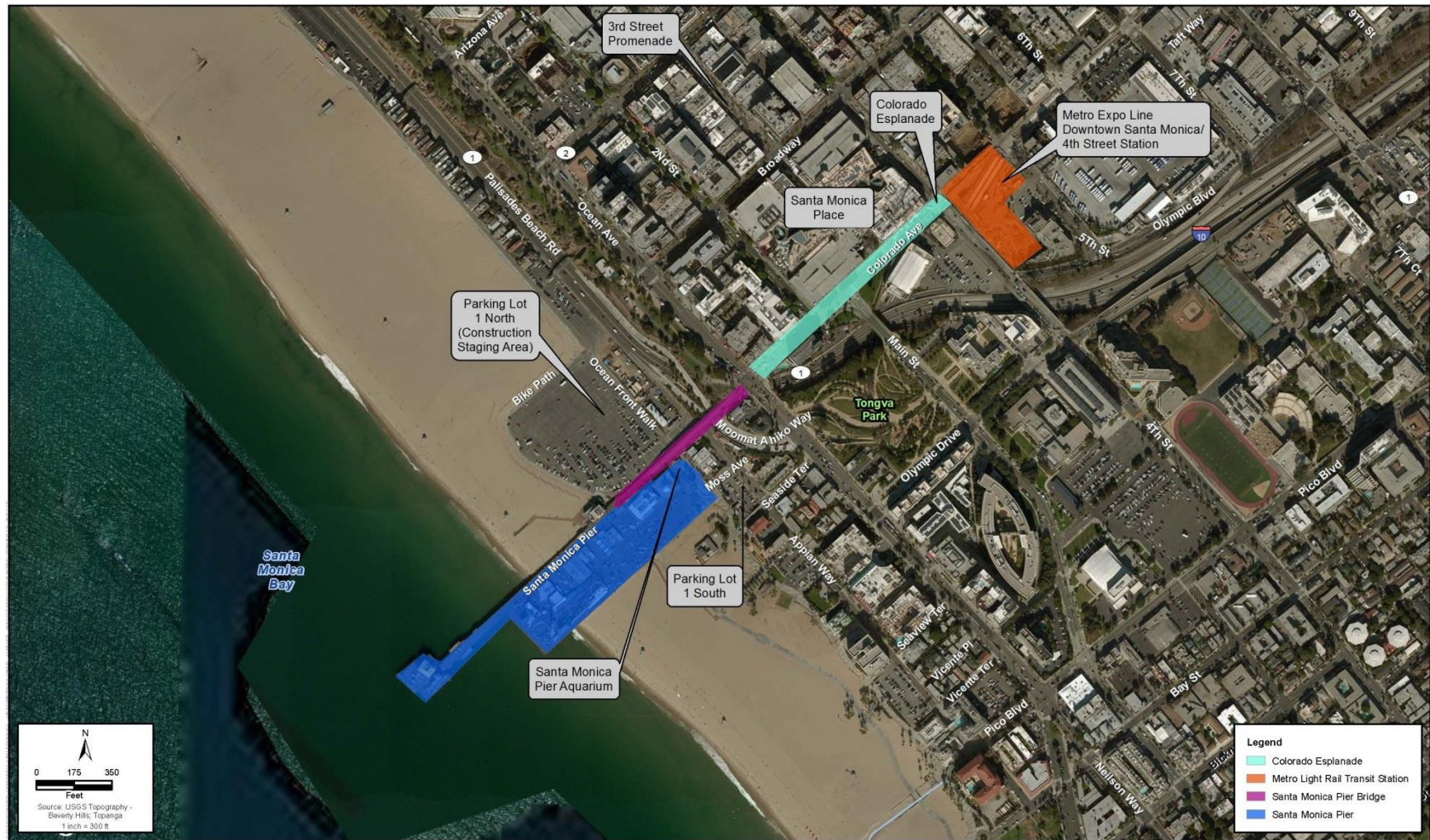


Figure 1-4. Project Linkages

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**Photo 1-4. Pedestrian Crosswalk Across the Pier and Vehicular Access Lanes to the Pier**



Source: T.Y. Lin International

**Photo 1-5. Colorado Esplanade Looking West Toward the Santa Monica Pier Bridge**



Source: ICF 2016

## Independent Utility and Logical Termini

The proposed project would have both independent utility and logical termini.<sup>1</sup> The proposed project would provide all the needed structural and seismic upgrades to the existing Santa Monica Pier Bridge, even without further transportation improvements in the vicinity of the project site.

The existing bridge serves to connect the Santa Monica Pier to Ocean Avenue, which is the nearest intersection; therefore, these two points represent the logical termini.

## 1.3 Project Description

The proposed project would replace the existing Pier Bridge with a safer bridge that would meet current seismic standards. Bridge replacement would also include improvements at the west and east approaches and on the pier.

This section describes the locally preferred alternative (LPA) and the project alternatives that have been developed to meet the identified purpose and need of the project while avoiding or minimizing environmental impacts. The LPA, along with one other build alternative and the No-Build Alternative, is being analyzed in this recirculated Draft EIR/EA. This section contains the following: a description of the design features that are common to all build alternatives – Alternatives 1 and 2 (Section 1.3.2), a description of all build and no-build alternatives (Section 1.3.3), a comparison of the alternatives (Section 1.3.4), an explanation of the process that will be followed to select an alternative for construction and a discussion of the locally preferred alternative (Section 1.3.5), an explanation of how this project has independent utility and logical termini (Section 1.3.6), a review of other alternatives that were considered but not carried forward (Section 1.3.7), a discussion of design features that were eliminated from further consideration (Section 1.3.8), and a summary of the permits and approvals that will be necessary to construct the project (Section 1.3.9).

### 1.3.1 Design Considerations and Constraints

There are a number of considerations and features that are common to all alternatives for replacing the Pier Bridge. These are described in the sections that follow.

#### 1.3.1.1 Grade and Profile Constraints

The existing Pier Bridge has a straight east–west alignment from Ocean Avenue to the pier (see Figure 1-3 in Section 1.2.2). The pier is fully developed with attractions and businesses, some of which are immediately adjacent to the Pier Bridge where it joins the pier deck. Although alterations to the width of the Pier Bridge are possible, the bridge alignment is constrained by existing development as well as the boundaries of the City’s right-of-way.

As described in Section 1.2.2.2, the Pier Bridge profile begins with a short section that rises as it proceeds west from Ocean Avenue. At approximately the mid-point above MAW, the bridge reaches its maximum height. From that point westward, the Pier Bridge has a

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<sup>1</sup> *Independent utility* means that the proposed project would meet the purpose and need of the project on its own and not require another project to fully achieve its purpose and need. *Logical termini* means that the project limits from one end of the roadway to the other are the logical limits and not an arbitrary segment of the roadway.



maximum grade of 10.2 percent and a drop in elevation of 36 feet, without intermediate landings. It reaches the pier deck in the vicinity of the historic Looft Hippodrome building. The bridge profile is controlled by several streets that cross under the bridge, including MAW and Appian Way. Also, as described in Section 1.2.2.2, consideration was given to lowering MAW; however, lowering MAW would reduce vehicular sight distance on MAW to a point that would be below minimum state requirements. Therefore, lowering MAW any further is currently infeasible.

### 1.3.1.2 ADA Access

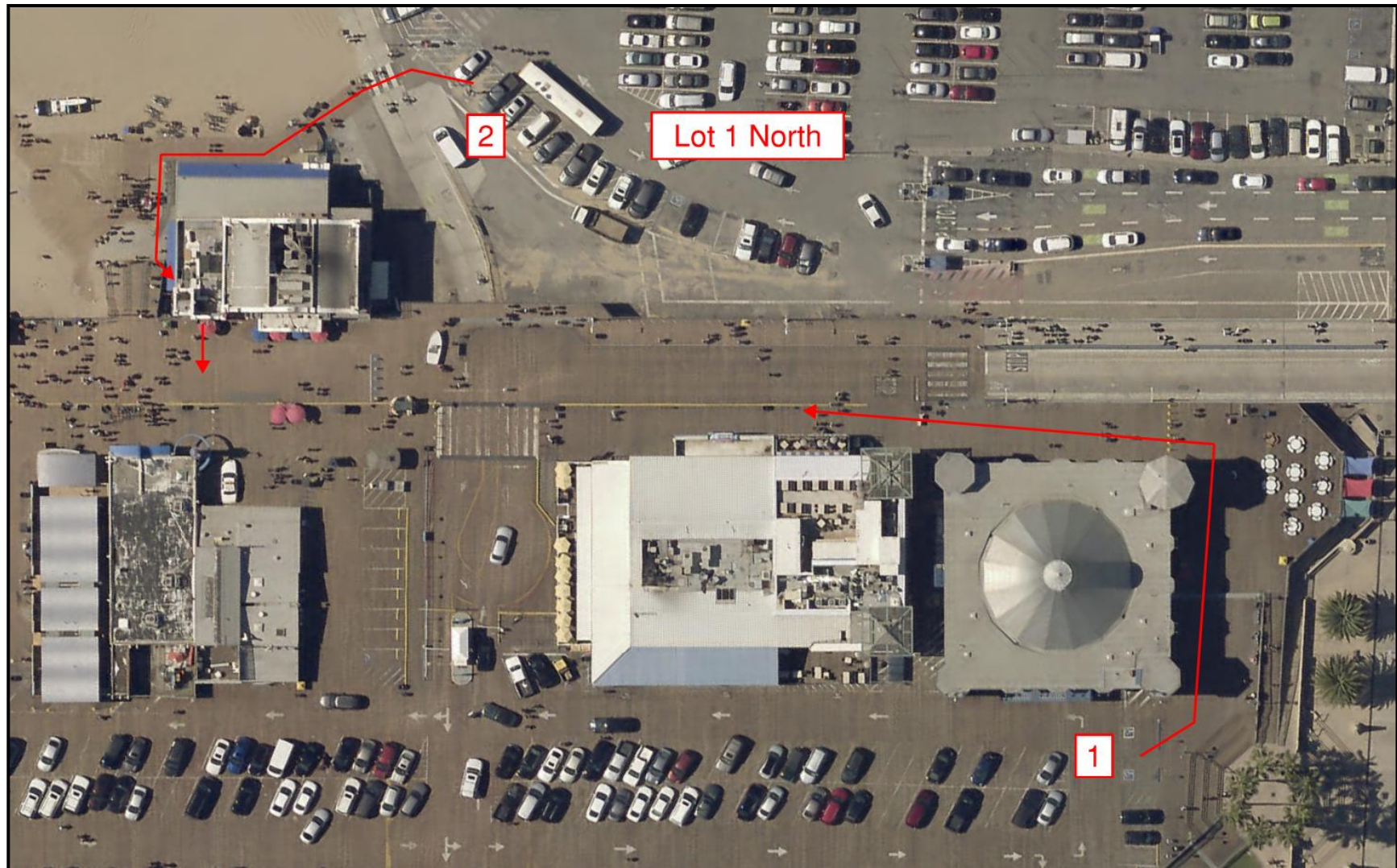
As previously stated, ADA-compliant access exists within the project area. ADA-compliant access to the pier is currently available within the sidewalk portion of the existing Pier Bridge (i.e., at the same slope as the vehicle/bicycle lanes). Because the sidewalk (pedestrian access route) is contained within the bridge, which is a street, the slope of the sidewalk is allowed to be the same as the adjacent street grade (United States Access Board Public Rights-of-Way Accessibility Guidelines 302.5, California Building Code 11B-403.3, Caltrans Design Information Bulletin 82-06 4.3.4).

The proposed project would maintain the existing ADA-compliant access. Providing enhanced ADA-compliant access has been considered, as described in Section 1.3.7. Each option has substantial reasons that render it infeasible, including (a) substantial massing encroaching into the envelope of the pier, (b) unacceptable visual obstructions and potential effects on historic resources, (c) unworkable vertical clearances, (d) unmanageable engineering-related technical challenges, and (e) unacceptable right-of-way requirements. For these reasons, the other options were dropped from consideration. Please refer to Appendix I, *ADA Access for the Santa Monica Pier Bridge Project*, for further information.

In addition to the ADA-compliant access provided on the existing Pier Bridge, ADA-compliant access to the pier is also available from four other existing routes, as described in detail in Appendix H to this document:

- Route 1 (see Figure 1-5) provides ADA-compliant access to the pier by motor vehicle and use of accessible parking provided thereon.
- Route 2 (see Figure 1-5) provides ADA-compliant access from Lot 1 North, using the accessible parking thereon, and then gaining access to the pier deck from the elevator in the Bubba Gump restaurant, which is made available during the restaurant's operating hours of approximately 11:00 a.m. to 10:00 p.m. (on weekdays) and 8:00 a.m. to 11:00 p.m. (on weekends).
- Route 3 (see Figure 1-6) provides a path from Ocean Avenue to the south sidewalk on MAW, then follows the accessible ramp next to the Santa Monica Urban Runoff Recycling Facility down to Appian Way. From Appian Way, the route continues southerly on the east sidewalk, then crosses Moss Avenue. The route then follows the sidewalk along Moss Avenue westerly, then turns to the north along Ocean Front Walk. Ramps are then available from Ocean Front Walk to the pier at Carousel Park.
- Route 4 (see Figure 1-7) begins at Ocean Avenue and proceeds southerly to Seaside Terrace. The route then proceeds westerly along Seaside Terrace, then northerly along Ocean Front Walk to the ramps at Carousel Park.

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Source: T.Y. Lin International, 2019.

**Figure 1-5. ADA-Compliant Access Routes 1 and 2**

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Source: T.Y. Lin International, 2019.

**Figure 1-6. ADA-Compliant Access Route 3**

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Source: T.Y. Lin International, 2019.

**Figure 1-7. ADA-Compliant Access Route 4**

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### 1.3.1.3 Historic Pier Sign

The pier sign (Photo 1-6), located at the east end of the Pier Bridge, just west of the Ocean Avenue/Colorado Avenue intersection, is a historically significant structure and an iconic feature of the City. It is also recognized as a California Historical Landmark. For both build alternatives, the pier sign would be temporarily removed and protected during construction-related activities to preserve its historic integrity. However, once construction has been completed, the pier sign would be reinstated and aligned over the vehicular lanes and raised to provide a minimum vertical clearance of 17'-0" per the California Manual on Uniform Traffic Control Devices (MUTCD). The pier sign would remain an identifying feature of the Pier Bridge.

**Photo 1-6. The Historic Pier Sign**



Source: T.Y. Lin International, 2013.

## 1.3.2 Common Features of All Build Alternatives

### 1.3.2.1 Pier Deck Improvements

The pier structure would be partially modified as part of this proposed project. To remove the existing bridge, those portions of the pier that connect to the bridge would need to be partially removed to facilitate the use of demolition equipment. For both build alternatives, in the area where the new bridge would connect to the pier, reconstruction of the deck would be needed to rejoin the two structures. During construction, a temporary pedestrian bridge (see Section 1.3.2.4) on the south side would touch down on the pier deck over the aquarium. The pier deck

would be modified at that location. Portions of the pier deck would be widened or extended for both alternatives. All pier structure modifications would either be reconstructed or replaced in kind to maintain the historic character of the pier.

### **1.3.2.2 Utility and Facilities Relocations, and Temporary Closures**

The Pier Bridge is in an area that is served by utilities that may be affected during construction and may require relocation. These facilities would be temporarily or permanently displaced during demolition and then potentially reconstructed at a later time. The facilities include the following: restrooms, pier storage rooms, an emergency backup generator for the aquarium, an electrical utility room, and a City trash compactor. Relocation of existing utility facilities within the project limits would be carefully planned with input from the utility owners/operators in order to maintain essential services to the pier while the bridge is under construction. All build alternatives would require partial acquisition and temporary displacement of an institutional space owned by the City of Santa Monica (City), which is leased to Heal the Bay, a non-profit organization that operates an aquarium at the property. Furthermore, construction of the proposed alternatives would also require temporary closures, resulting in detours, to the Marvin Braude Bike Trail.

### **1.3.2.3 Construction Staging**

The Pier Bridge is surrounded by park space, businesses, local streets, public walkways, and other structures. Some of these are located beneath the bridge. In addition, there are residences on Ocean Front Walk south of the pier. Palisades Park and a City maintenance yard are located to the north, across Pacific Coast Highway. Providing the contractor with enough working space to safely demolish the existing bridge and construct the new one, while minimizing disruptions in access to public resources and residences, businesses, and operations on the pier, will require careful consideration.

Staging space for the contractor's use is proposed within a portion of Lot 1 North. Staging would cause the temporary loss of approximately 365 parking spaces in the lot and require a temporary modification at the lot entrance.

Located on the southeast side of the Pier Bridge, along Ocean Front Walk, are a variety of businesses. These include the Santa Monica Pier Aquarium, the historic Loeff Hippodrome, and Carousel Park. These uses would not be able to provide adequate space for construction work to proceed safely from the south side. In addition, the temporary pedestrian bridge (see Section 1.3.2.4) would further constrain the amount of space for work on the south side of the pier. For these reasons, construction staging for the project is proposed on the north side of the bridge, adjacent to Palisades Park.

The project would require the use of many types of construction equipment, including backhoes with hydraulic rams, dump trucks, cranes, drilling rigs, concrete trucks, and other types of equipment. Construction activities would occur primarily between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday. Per Section 4.12.110 of the City's Municipal Code, construction work cannot be conducted between 6:00 p.m. and 7:00 a.m. Monday through Friday, between 5:00 p.m. and 9:00 a.m. on Saturday, or at any time on Sunday or major holidays. However, per Section 4.12.110 (e), a permit can be issued for construction operations

performed at night. Given these constraints, the Lot 1 North entrance would be temporarily relocated during construction to provide an adequate space for construction. However, access to facilities would be maintained during construction of the new bridge.

#### **1.3.2.4 Access During Construction**

##### **Temporary Pedestrian Bridge**

During demolition of the existing Pier Bridge and construction of the new replacement bridge, pedestrian access between the pier and the Ocean Avenue/Colorado Avenue intersection would be maintained through construction of a temporary pedestrian bridge adjacent to and south of the Pier Bridge (see Figure 1-8). A location for the temporary pedestrian bridge north of the pier was considered but eliminated, as discussed in detail in Section 1.3.8, Alternative Design Features Eliminated from Consideration.

The temporary pedestrian bridge would be set back approximately 5 feet from the southern edge of the existing bridge to allow for safe demolition of the existing bridge and construction of the new bridge. It would be confined to the City right-of-way and be approximately 4 feet from existing buildings on Ocean Front Walk to the south. Access to the temporary pedestrian bridge would be from the Ocean Avenue/Colorado Avenue intersection. The temporary pedestrian bridge would have a grade similar to that of the existing bridge (10 percent) and be 8 feet wide. Given its narrow width, the temporary bridge would accommodate pedestrians only; however, it may not be able to accommodate peak weekend and holiday pedestrian levels. Additional signage would be provided to reroute pedestrians to alternative access routes north and south of the pier during peak weekend and holiday periods.

Because the temporary bridge would have a steep grade and be narrower than the existing bridge, it would not be ADA compliant or accessible to bicyclists during construction of the project. People with disabilities would need to arrive at the pier by motor vehicle via the temporary vehicle ramp (discussed below), park in designated spots, then gain access to the pier from existing ADA-compliant ramp access points at Lot 1 North, Ocean Front Walk, or the pier deck. In addition, ADA-compliant access to the pier and beach would be provided from the southwest corner of Ocean Avenue and MAW as well as the sidewalk to the undulating ADA-compliant ramp next to the Santa Monica Urban Runoff Recycling Facility that connects to Appian Way and Seaside Terrace (see Section 1.3.1.2 for further information on existing ADA-compliant routes to the pier). Bicyclists would gain access to the pier from alternate street routes to the south, such as Seaside Terrace or Ocean Front Walk.

Because of the proximity of the pedestrian bridge to construction, it would need to be covered and have a solid wall on the side adjacent to the Pier Bridge for public safety. The cover and wall, which would be constructed of plywood, would appear similar to the temporary walkways that are commonly constructed next to building projects in urban areas. During some operations, such as bridge demolition or the lifting of large reinforcing cages, the pedestrian bridge may need to be temporarily closed to the public when the proximity of construction equipment could be a safety concern. During closures, the public would be routed to Seaside Terrace. To limit public inconvenience, another option would be to perform such operations during evening hours when there are fewer visitors at the pier. This would require a special after-hours construction permit from the City.

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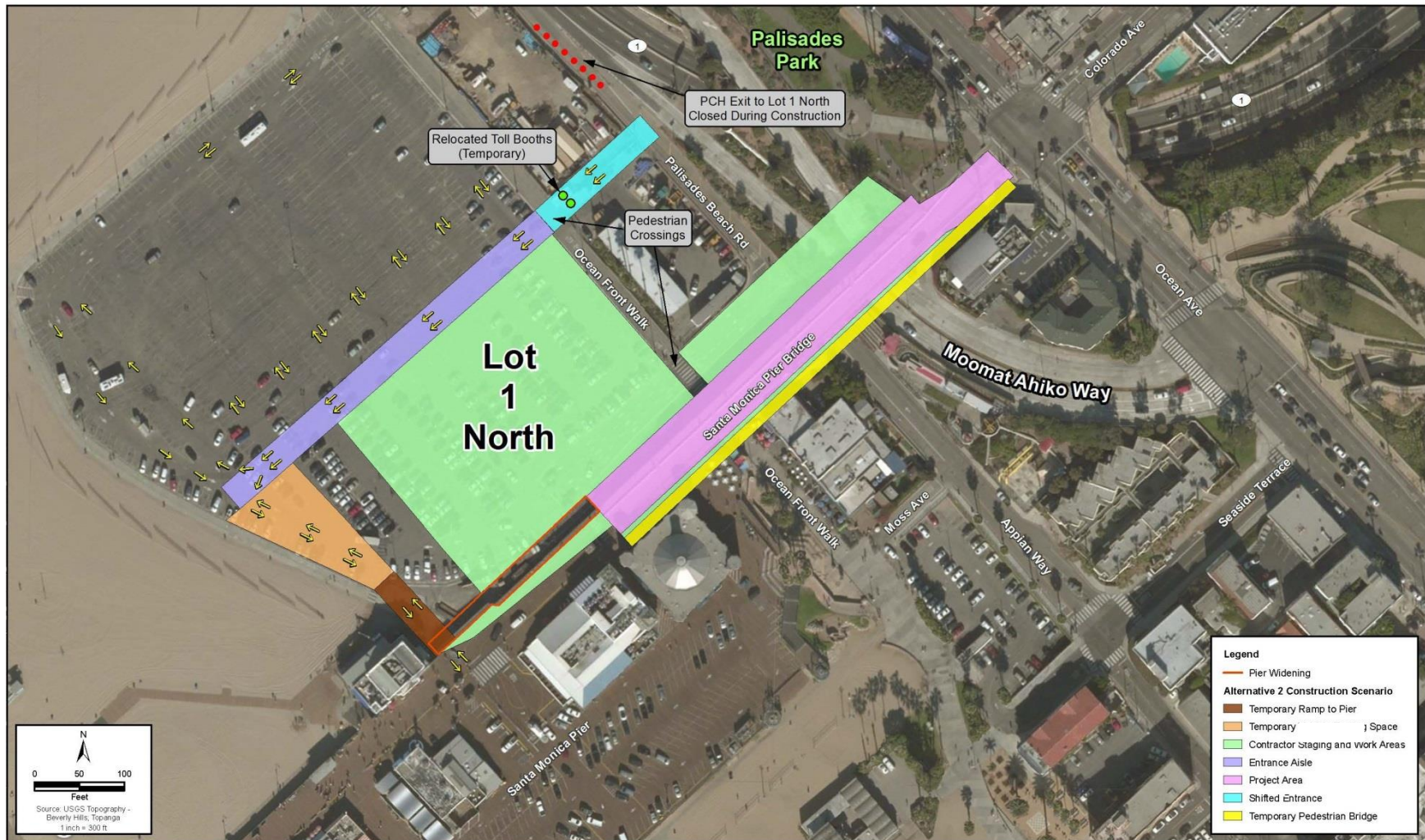


Figure 1-8. Temporary Construction Scenario Accommodations



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## **Vehicular Access during Construction**

The Pier Bridge passes over split two-lane roadways, MAW and Appian Way, as well as a pedestrian path. Although it would be desirable to maintain access along these routes, it may be necessary to limit such access so as to not compromise public safety. Temporary closures would be made known with signage, and detour routes would be identified.

All of the aforementioned routes would be temporarily closed during demolition of the bridge because of the risk posed by falling concrete. In addition, foundation construction would involve the use of drilling rigs and cranes in proximity to the public and the erection and removal of falsework, which would also require closures.

For Ocean Front Walk and Appian Way, some temporary closures would be required in the interest of public safety during bridge demolition, foundation construction, and falsework erection/removal. Because of the closure of Appian Way, construction operations would be carefully planned so that access to Lot 1 North would continue to be provided.

For MAW, the same closures as discussed above would occur, but the limited vehicular clearance creates additional restrictions. The vertical clearance under the Pier Bridge at MAW is approximately 15 feet, which is the minimum recommended by Caltrans for local streets. This amount of clearance allows truck traffic to pass underneath safely. Temporary falsework may be needed to construct the new bridge, which would reduce the vertical clearance to approximately 13 feet. This amount of clearance would not accommodate truck traffic. If approved by the City and Caltrans, MAW could be closed to truck traffic during construction; only automobiles would be allowed to pass under the falsework. Adequate traffic controls and signage would be provided to detour trucks around the construction area. If it should be determined that automobile traffic under the falsework poses safety concerns, MAW could be closed to all traffic during construction.

## **Temporary Vehicular Ramp**

As shown in Figure 1-8, a temporary ramp that would enable vehicles to access the pier parking area would be provided from Lot 1 North. The purpose of this ramp is to maintain access to pier parking for regular vehicles but also provide emergency access. This ramp would be designed to support H-20 truck loading. Also shown in Figure 1-8 are other areas for construction-related functions. Those areas would be used while the construction process is under way.

### **1.3.2.5 Transportation System Management**

Although Transportation System Management measures alone cannot satisfy the purpose and need of the project, two measures have been incorporated into the build alternatives for this project. First, safety for pedestrians and bicyclists would be improved by providing separation between automobiles and pedestrians or bicyclists on the Pier Bridge. Second, the replacement bridge would provide supporting infrastructure for pedestrians as part of a larger set of existing improvements, including the Colorado Esplanade and Expo light rail, which would increase access to the pier, either from public transit or by walking or bicycling.

### 1.3.3 Alternatives Under Consideration

In the sections that follow, descriptions are provided of the two build alternatives that are under consideration as well as the No-Build Alternative. Each of the proposed build alternatives would satisfy the project's purpose and need, to varying degrees. The build alternatives would correct the structural deficiencies that currently exist and would provide for adequate long-term public safety.

Alternatives 1 and 2 (Locally Preferred Alternative [LPA]) would provide an in-kind replacement bridge, which would maintain the current paths of access from Ocean Avenue to the pier, namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path, consisting of a sidewalk, that would be used for ADA-compliant access (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent along both paths. Existing alternate routes would remain available for ADA-compliant access, as described in Section 1.3.1.2. The alternative ADA routes will be evaluated for improvement with additional signage, additional parking locations, and/or curb ramp upgrades, if necessary.

Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not improve conditions related to ADA standards. As time goes on, these compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative serves as a baseline against which the performance and potential environmental impacts of the build alternatives are measured.

#### 1.3.3.1 Alternatives 1 and 2 (LPA): In-Kind Bridge Replacement

Alternatives 1 (In-Kind Pier Bridge Replacement with Northside Sidewalk), and Alternative 2 (In-Kind Pier Bridge Replacement with Southside Sidewalk (Locally Preferred Alternative) would provide an in-kind replacement bridge with the same alignment and profile as the existing bridge. The replacement bridge would be approximately 448 feet in length and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as existing bridge. Two bridge configurations are being considered, as described below.

Under Alternative 1 (see Figures 1-9 and 1-10), vehicles and bicycles would use a 20-foot-wide roadway on the south side of the bridge. A 15-foot-wide sidewalk would be provided on the north side of the bridge. The roadway from Ocean Avenue would require a northeast-to-southwest taper from the existing curbs. The existing historic pier sign would be removed during construction and reinstalled at the same location but elevated to provide a minimum vertical clearance of 17'-0" per MUTCD. This alternative would also require an approximately 4-foot-wide extension of the existing pier deck, running approximately 157 feet, on the north side of the pier. Under Alternative 1, the footprint of the existing bridge on the south side would remain unchanged from existing conditions.



## Alternative 1: In-Kind Pier Bridge Replacement with Northside Sidewalk

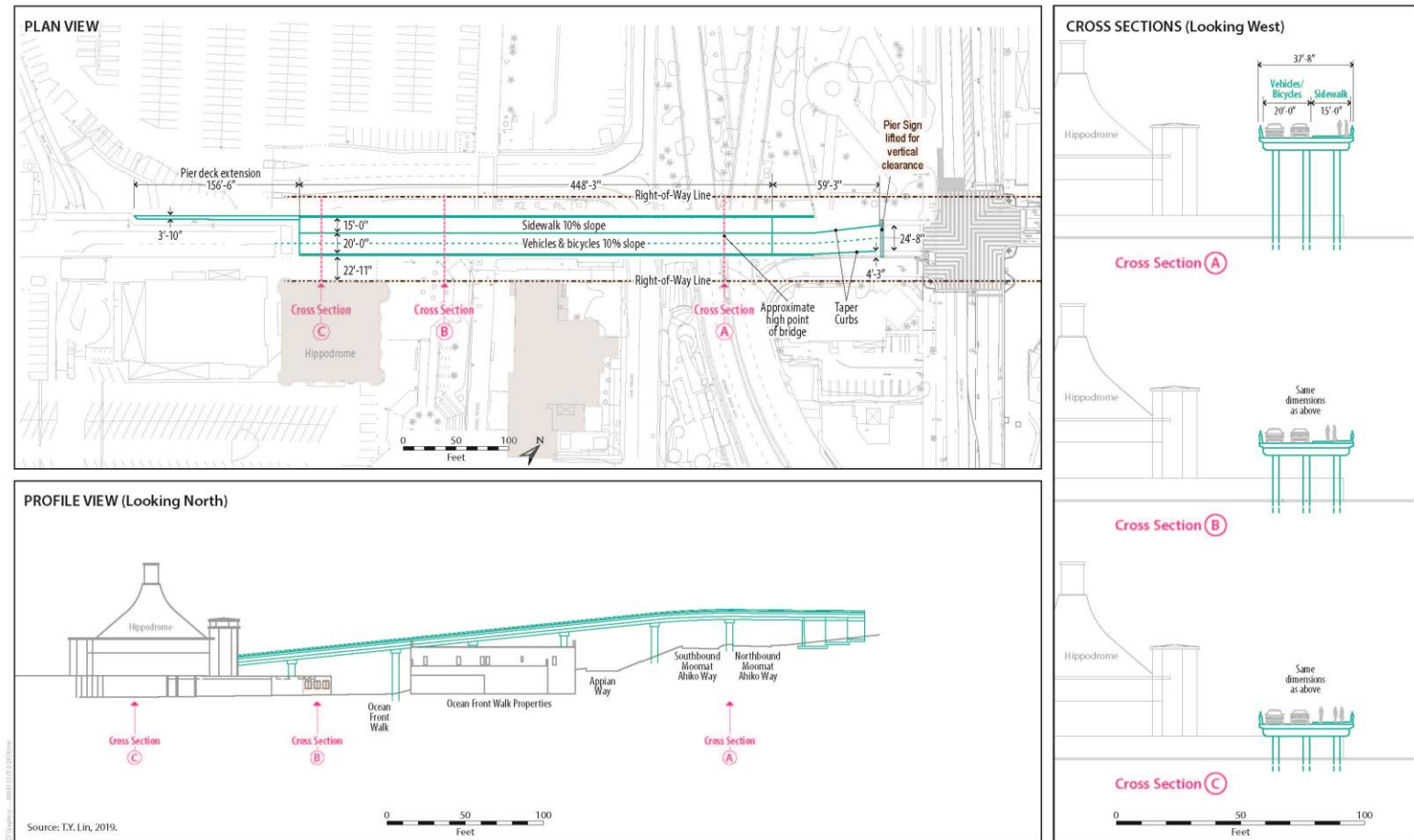


Figure 1-9. Alternative 1, In-Kind Pier Bridge Replacement with Northside Sidewalk

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**Figure 1-10. Alternative 1, Aerial View**

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Under Alternative 2 (LPA), the proposed project<sup>2</sup>, (see Figures 1-11 and 1-12) the path locations would be reversed; vehicles and bicycles would use a 20-foot-wide roadway on the north side of the bridge and a 15-foot-wide sidewalk on the south side of the bridge. The length of the bridge would be essentially the same as under Alternative 1. The historic pier sign would be removed during construction and require relocation to an area approximately 10 feet north of its existing location and elevated to provide a minimum vertical clearance of 17'-0". The curbs from Ocean Avenue would not require a taper under this alternative. The same pier deck extension on the north side would also be required under this alternative. Under Alternative 2, the footprint of the existing bridge on the south side would remain unchanged from existing conditions.

For both Alternatives 1 and 2, ADA-compliant access to the pier would be provided by the existing routes described in Section 1.3.1.2.

### **1.3.4 Comparison of Alternatives**

As discussed in the previous section, two build alternatives are proposed for evaluation in this recirculated Draft EIR/EA. The alternatives provide varying means of conveyance for motor vehicles, bicycles, pedestrians, and people with disabilities to the pier. The characteristics of each build alternative are summarized in Table 1-1.

### **1.3.5 Identification of the Locally Preferred Alternative and Final Decision-Making**

Among the two build alternatives under consideration, Alternative 2 has been identified as the "locally preferred alternative." Therefore, for purposes of the recirculated Draft EIR/EA, Alternative 2 has been designated as the "project." Alternative 2 achieves project objectives, such as accommodating vehicular, bicycle, and pedestrian travel; providing ADA-compliant access to/from the Pier Bridge; and having acceptable environmental effects.

This recirculated Draft EIR/EA will be made available for public review and comment. A public hearing will be conducted as part of the public review process. All comments received during the public comment period will be considered, and responses to those comments will be published in the recirculated Final EIR/EA. Upon completion of the review process for the recirculated Final EIR/EA, in consideration of comments received, a final determination will be made (i.e., to either adopt the project [Alternative 2] or select another alternative)

Among the factors considered will be:

- Project cost
- Engineering considerations
- Temporary and permanent impacts
- Public comments.

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<sup>2</sup> CEQA requires the identification of the proposed project among the list of proposed build alternatives. *Washoe Meadows Community v. Department of Parks and Recreation* (1<sup>st</sup> Dist. 2017), 17 Cal.App.5<sup>th</sup> 277, held that "the DEIR's failure to provide the public with an accurate, stable and finite" project description "prejudicially impaired the public's ability to participate in the CEQA process by setting forth a range of five very different alternatives and by declining to identify a preferred alternative."

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## Alternative 2: In-Kind Pier Bridge Replacement with Southside Sidewalk

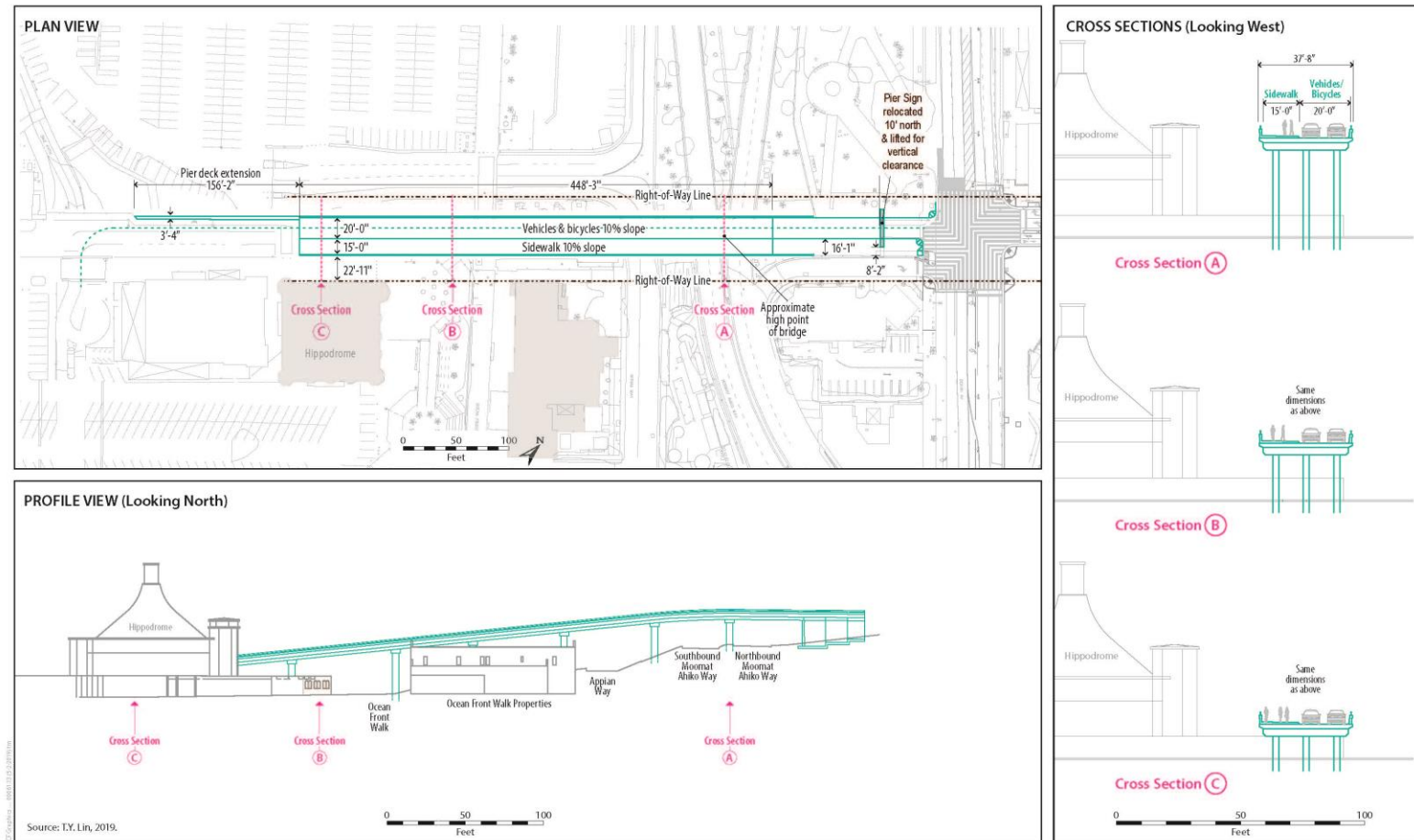


Figure 1-11. Alternative 2, In-Kind Pier Bridge Replacement with Southside Sidewalk

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**Figure 1-12. Alternative 2, Aerial View**

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Table 1-1. Comparison of Alternatives

Alternative Number	Description	Dedicated Paths	Slope	ADA-Compliant Access; Elevators and Stairs	Total Structure Width			Pier Sign Placement	Other Features and/or Requirements
					At Elev. A	At Elev. B	At Elev. C		
1	In-kind Pier Bridge replacement	Northside – sidewalk (15'0" wide)	10%	ADA-compliant access provided by existing routes.	37'8"	37'8"	37'8"	Pier sign removed during construction, reinstalled in existing location, and lifted for 17'-0" vertical clearance.	Entrance to/exit from southside vehicle/bicycle path via northeast-to-southwest taper from existing curbs. Requires extension of pier deck at end of bridge.
		Southside – vehicles and bicycles (20'0" wide)	10%						
2	In-kind Pier Bridge replacement	Northside – vehicles and bicycles (20'0" wide)	10%	ADA-compliant access provided by existing routes.	37'8"	37'8"	37'8"	Pier sign removed during construction, reinstalled 10'-0" north of existing location, and lifted for 17'-0" vertical clearance.	Requires extension of pier deck at end of bridge.
		Southside – sidewalk (15'0" wide)	10%						

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As required under CEQA, if the City approves the project, the City will (a) certify that the CEQA process has been properly carried out, (b) prepare and approve a statement of findings and overriding considerations, (c) certify that both the EIR/EA and statement of findings and overriding considerations have been considered prior to project approval, (d) approve the project (Alternative 2) or one of the other alternatives (from among the alternatives considered), (e) adopt a mitigation monitoring and reporting program, and (f) file a notice of determination with the State Clearinghouse that attests to the above actions.

Similarly, under NEPA, if Caltrans, under its delegation authority from FHWA, concurs with the decision regarding the project selected for implementation and determines that approval of the project would not significantly affect the environment, it will issue a finding of no significant impact.

Completion of the above two processes will then permit the project to proceed into final design and subsequent construction. Construction of the proposed project is anticipated to last approximately two years.

### **1.3.6 Alternatives Eliminated from Consideration**

The sections that follow describe the alternatives that were considered in development of the project but are no longer under consideration.

#### **1.3.6.1 Retrofit and Rehabilitate Existing Bridge**

Under this alternative, the existing Pier Bridge would simply be reinforced and rehabilitated to the extent feasible. Caltrans has evaluated the feasibility of retrofitting and rehabilitating the existing bridge and determined that, because of the age of the bridge and the extent of deterioration, it would not be cost effective to consider this alternative. The existing bridge has been exposed to a severely corrosive marine environment for the past 80+ years. Its deep foundations cannot be inspected; therefore, the level of deterioration is unknown.

Since construction of the bridge, significant advancements have been made with respect to bridge design, loading, and materials. Rehabilitation of the existing bridge would not take advantage of the benefits these advancements provide. In addition, a retrofitted and rehabilitated bridge would require more maintenance than a new bridge, which would be constructed of modern materials that would withstand the marine environment. Also, a seismically retrofitted bridge would not meet current bridge design vehicle loading code requirements. Finally, the federal funding that has been programmed for this project can be used only for complete bridge replacement. For these reasons, this alternative has been eliminated from further consideration.

#### **1.3.6.2 Retrofit and Rehabilitate Existing Bridge and Remove Parking on the Pier**

Under this alternative, the existing bridge would be reinforced and rehabilitated for use by pedestrians and bicyclists only. In addition, the pier deck parking lot would be removed. Funding for the proposed project is being sought from the federal HBP. The HBP reimburses up to 88.47 percent of project costs; the remainder is provided in the form of local matching funds. If public vehicular traffic were to be removed from the bridge, HBP funding would no longer be available. Funding for the entire cost would need to come from another source. Although public

parking could be removed or reduced, such actions would need to be undertaken as separate projects by the City in the future. They would also be under the purview of the California Coastal Commission or the future Local Coastal Plan. Also, vehicle access must continue to be provided at the pier for both emergency services and deliveries to the businesses that operate on the pier. For these reasons, this alternative has been eliminated from further consideration.

### **1.3.6.3 Retrofit, Rehabilitate, and Widen Existing Bridge**

This alternative would be the same as proposed and described in the preceding section, although it would include widening to accommodate users of the bridge. Under this alternative, the same funding and approval uncertainties would exist; therefore, it is no longer under consideration.

### **1.3.6.4 Replace Bridge in Kind with Constant 5 Percent Grade**

Under this alternative, the existing Pier Bridge would be replaced with a bridge of the same width (approximately 34 feet) at the same location but constructed at a constant 5 percent grade to achieve ADA compliance. This shallower grade would require the bridge to be substantially longer (approximately twice as long as the present bridge), which would make it touch down on the pier deck near the Bubba Gump restaurant. This would result in potentially significant impacts because the much longer structure would block the north façade of the historic Looft Hippodrome and impair access to several businesses on the pier. For these reasons, this alternative was eliminated from further consideration during the concept study phase for the project.

### **1.3.6.5 Replace Bridge in Kind but One-Way Entry for Vehicles and Separate Lot 1 North Vehicular Pop-up Ramp under Pier to Exit onto Lot 1 North**

This alternative would replace the existing bridge with a new bridge with improved ADA-compliant access. Although the new bridge would be the same width as the existing bridge, it would provide only one-way vehicle access to the pier deck. From the pier deck parking lot, vehicles would exit via a ramp down to Lot 1 North. This alternative would require cutting an opening in the pier deck for the ramp and strengthening the deck around the opening. Another potential issue is that vertical clearance under the pier deck is low and may not accommodate the height of all delivery vehicles. The pedestrian/vehicular conflict would not be improved adequately under this alternative, and there could be significant utility conflicts with construction of the ramp. Because of the lack of improvement this alternative offered, it was eliminated from further consideration.

### **1.3.6.6 Replace Bridge in Kind with Separate ADA-Compliant Access and Bicycle Access**

Under this alternative (Figure 1-13), the existing Pier Bridge would be replaced with a bridge of the same width (34 feet) at the same location. This alternative would also include construction of a separate ADA-compliant pedestrian/bicycle path north of the pier. Because of the substantial length required to meet ADA compliance, this alternative would result in potentially significant right-of-way impacts at Lot 1 North. It could also result in reduced vertical clearance and a reduction in the number of parking spaces, along with adverse visual impacts on the historic Looft Hippodrome. This alternative was not preferred by the public or the City and was eliminated from further study during the concept study phase.





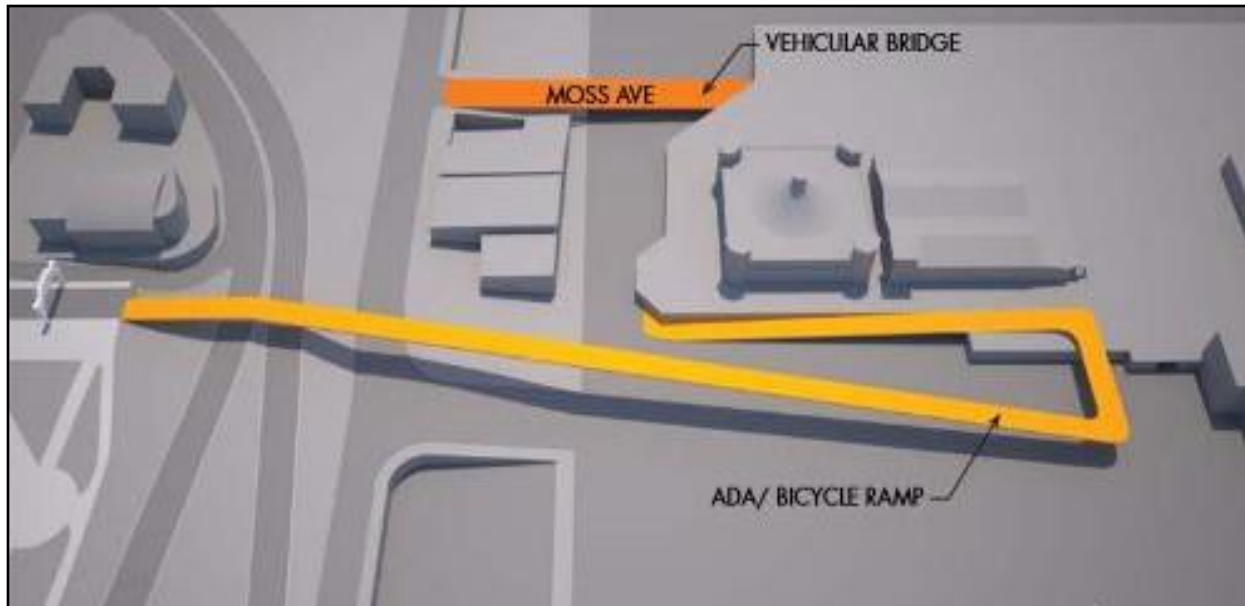
Source: T.Y. Lin International, 2013.

**Figure 1-13. Replace Bridge in Kind with Separate ADA-Compliant Ramp and Bicycle Access**

#### **1.3.6.7 Replace Bridge with New ADA-Compliant Non-Vehicular Pedestrian/Bicycle Bridge and Separate Moss Avenue Vehicular Bridge**

This alternative (Figure 1-14) would construct a new bridge that would be longer, narrower, and curvilinear. It would also provide a new vehicular bridge at Moss Avenue. This alternative would result in significant right-of-way impacts on Lot 1 North, Carousel Park, and the scenic corridor along Ocean Front Walk. It would also reduce vertical clearance and the number of parking spaces and result in potential adverse visual impacts on the historic Loeff Hippodrome building. Because of the need to maintain delivery and emergency vehicle access from Ocean Avenue to the pier deck, as well as the lack of public support, this alternative was eliminated from further study during the concept study phase.



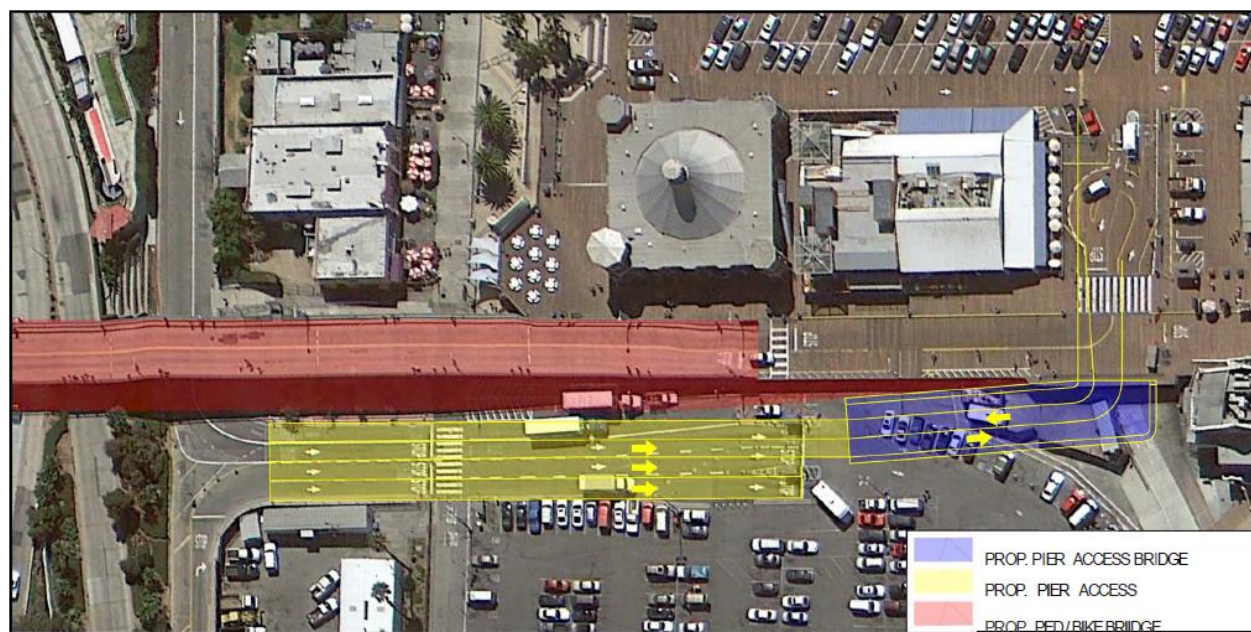


Source: T.Y. Lin International, 2013.

**Figure 1-14. Replace with “New Concept” Non-Vehicular Pedestrian/Bicycle Bridge and Separate Moss Avenue Vehicular Bridge**

#### **1.3.6.8 Replace Bridge with New Pedestrian/Bicycle Bridge and Separate Lot 1 North Vehicular Ramp**

This alternative (Figure 1-15) would provide a new permanent pedestrian/bicycle bridge with emergency/limited access on the existing Pier Bridge alignment and a new vehicle-only ramp at Lot 1 North, providing access to the pier deck parking area. This alternative would result in permanent right-of-way impacts at Lot 1 North, which is owned by the state. Also, there would be a permanent reduction in the number of parking spaces. This alternative would create circulation conflicts among pedestrians, bicyclists, and vehicles on the pier deck. Because of the substantial property and right-of-way impacts, as well as the lack of improvement to existing conflicts between modes of transportation, this alternative was eliminated for further consideration during the concept study phase.



Source: T.Y. Lin International, 2013.

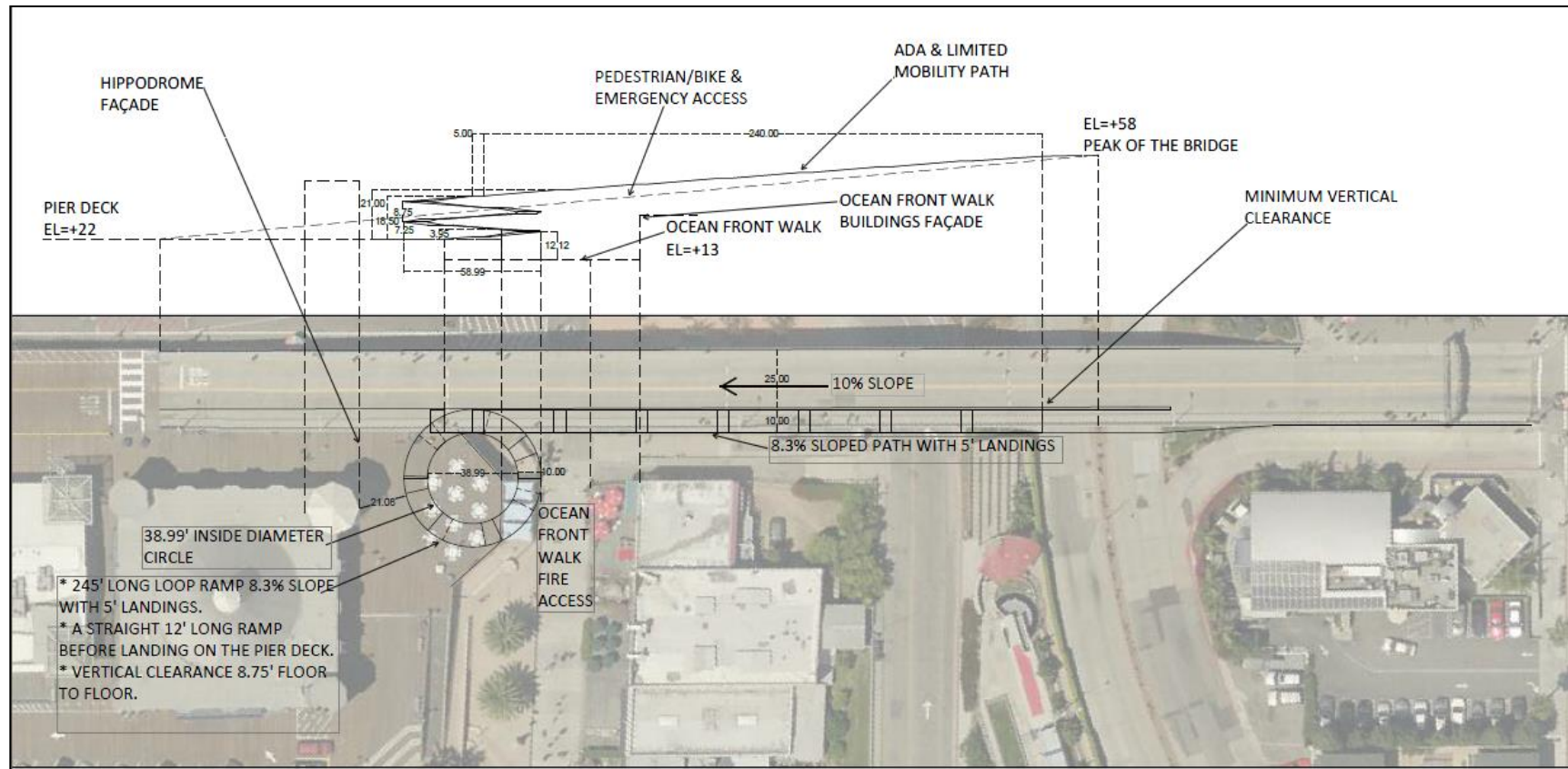
**Figure 1-15. Replace Bridge with New Pedestrian/Bicycle Bridge and Separate Lot 1 North Vehicular Ramp**

### **1.3.6.9 Provide ADA-Compliant Access with Pedestrian Bridge and Circular Ramp on South Side of Pier Bridge**

This alternative (Figure 1-16) proposed a pedestrian bridge on the south side of the Pier Bridge that would connect to a circular ramp next to the pier. The pedestrian bridge and ramp would have a maximum grade of 8.33 percent, with landings for every 2.5 feet of vertical elevation change.

The structures were investigated using a 10-foot structure width and maintaining a minimum vertical clearance of 7 feet at the circular ramp. To provide adequate length and make up the elevation difference from the high point over MAW to the pier deck, the circular ramp would need a diameter of approximately 60 feet. Given this large scale, the majority of the ramp would need to be over the pier deck so as not to encroach on Ocean Front Walk. This alternative was eliminated because it would reduce the amount of usable pier deck space, have potentially significant visual impacts, and result in potential impacts on the historic Loeff Hippodrome building. For these reasons, this alternative was eliminated from further consideration.

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Source: T.Y. Lin, 2016.

**Figure 1-16. Provide ADA-Compliant Access for Pedestrian Bridge and Circular Ramp on South Side of Pier Bridge**

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#### **1.3.6.10 Wider Replacement Bridge on the Existing Alignment and Temporary Vehicle Access Bridge on Moss Avenue during Construction (former Build Alternative 1)**

This alternative (identified as Build Alternative 1 in the 2017 Draft EIR/EA [see Figures 1-17 and 1-18]) would demolish the existing bridge entirely, provide a wider bridge within the alignment of the existing Pier Bridge, and construct a temporary vehicular bridge on Moss Avenue that would connect Appian Way to pier deck parking during construction. The temporary bridge would span Ocean Front Walk and connect to the pier at the parking spaces next to an ADA-compliant ramp on the southeast end of the pier. California Fire Code Title 24, Part 9, Section 503.2.1, requires a minimum vertical clearance of 13 feet, 6 inches for emergency vehicles. The required vertical clearance over Ocean Front Walk would be maintained.

The replacement Pier Bridge itself would be approximately 490 feet long and approximately 64 feet wide, approximately 30 feet wider than the existing bridge. The additional width was proposed to provide an ADA-compliant path, two bicycle lanes, and a wider sidewalk that would safely serve the volume of pedestrians at the pier. During construction, pedestrian access from the Ocean Avenue/Colorado Avenue intersection would be provided via a temporary bridge. The new bridge roadway would be shifted approximately 14 feet north of the existing west and east bridge approaches. The west bridge approach on the pier deck would be widened by approximately 21 feet over a length of approximately 240 feet. Similarly, the east bridge approach would also be widened, reducing the width of the Colorado Avenue side street, adjacent to The Lobster restaurant, from MAW to 12 feet over a length of approximately 120 feet from Ocean Avenue.

This alternative had two ADA options. Option A included a separate structure with a 5 percent slope that would be connected to elevators, stairs, and escalators at the pier. Option B included a semi-circular path that would be cantilevered from the side of the bridge, with a maximum slope of 8 percent and intermediate landings for every 30 inches of elevation change. After circulation of the 2017 Draft EIR/EA, it was determined that the radius of the semi-circular path would be too small and would result in compound cross slopes that would not meet the requirements for accessible routes (United States Access Board ADA Standards Advisory 405.7). The small radius and longitudinal slope would result in an uneven surface that would make wheelchair maneuvering difficult because not all wheels would rest on the surface. An inner radius of 30 feet is considered necessary to minimize the slope differential (United States Access Board ADA Accessibility Guidelines, Section 4.8). However, a radius of 30 feet would result in impacts similar to those of alternatives that were eliminated from consideration. Therefore, Option B was eliminated from consideration.

Lot 1 South currently has two exits. During construction, the Moss Avenue exit would be closed because of temporary bridge construction at that location; the existing exit on Seaside Terrace would be used during this period. Substantial comments were received concerning this alternative during circulation of the 2017 Draft EIR/EA (e.g., concerns regarding construction impacts on Carousel Park, potential impacts on historic parcels along Ocean Front Walk, and potential visual impacts on the Ocean Front Walk view corridor). Based on the response from directly affected parties and the public, this alternative was eliminated from further consideration.

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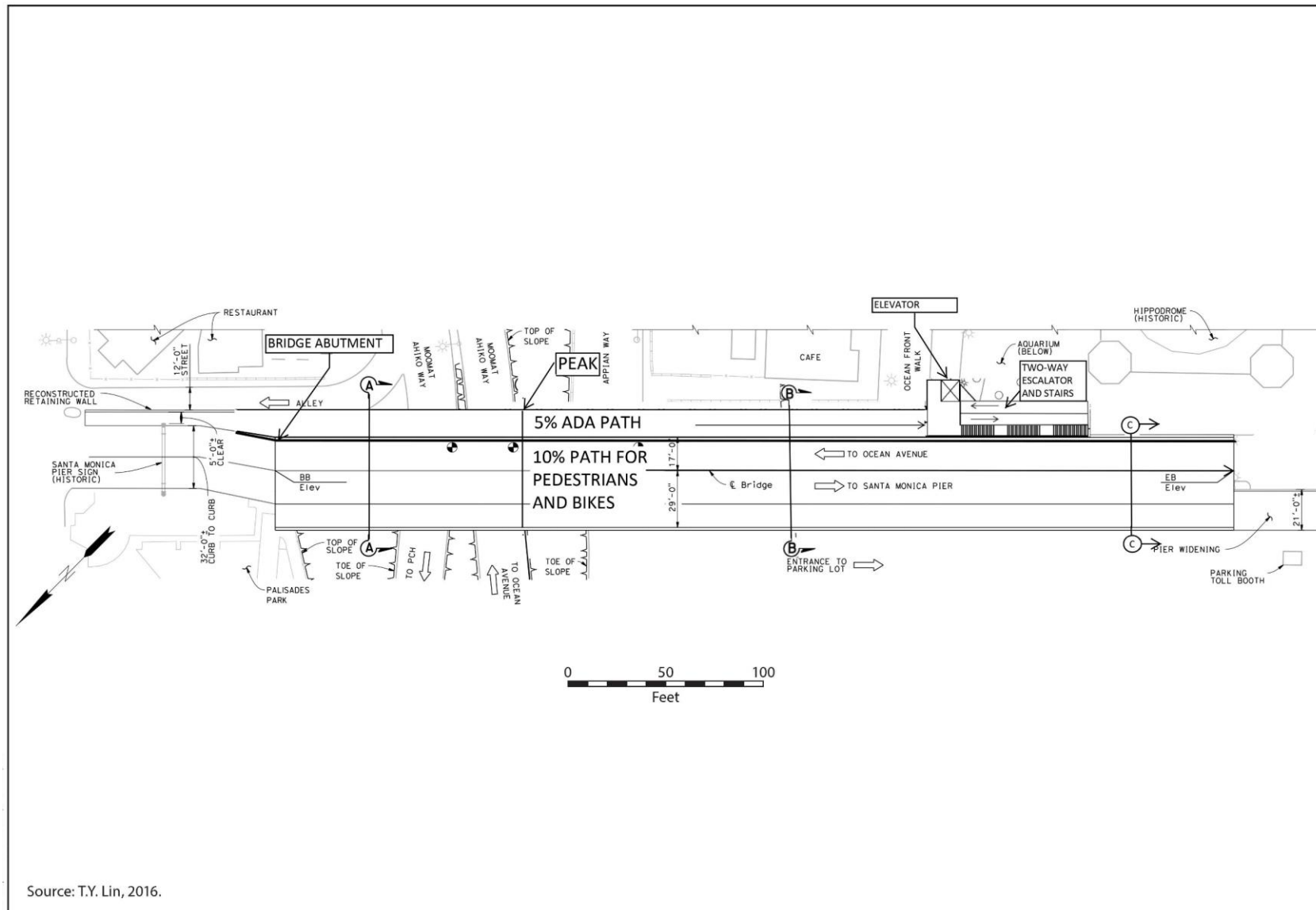


Figure 1-17. Alternatives 1 and 2, Option A

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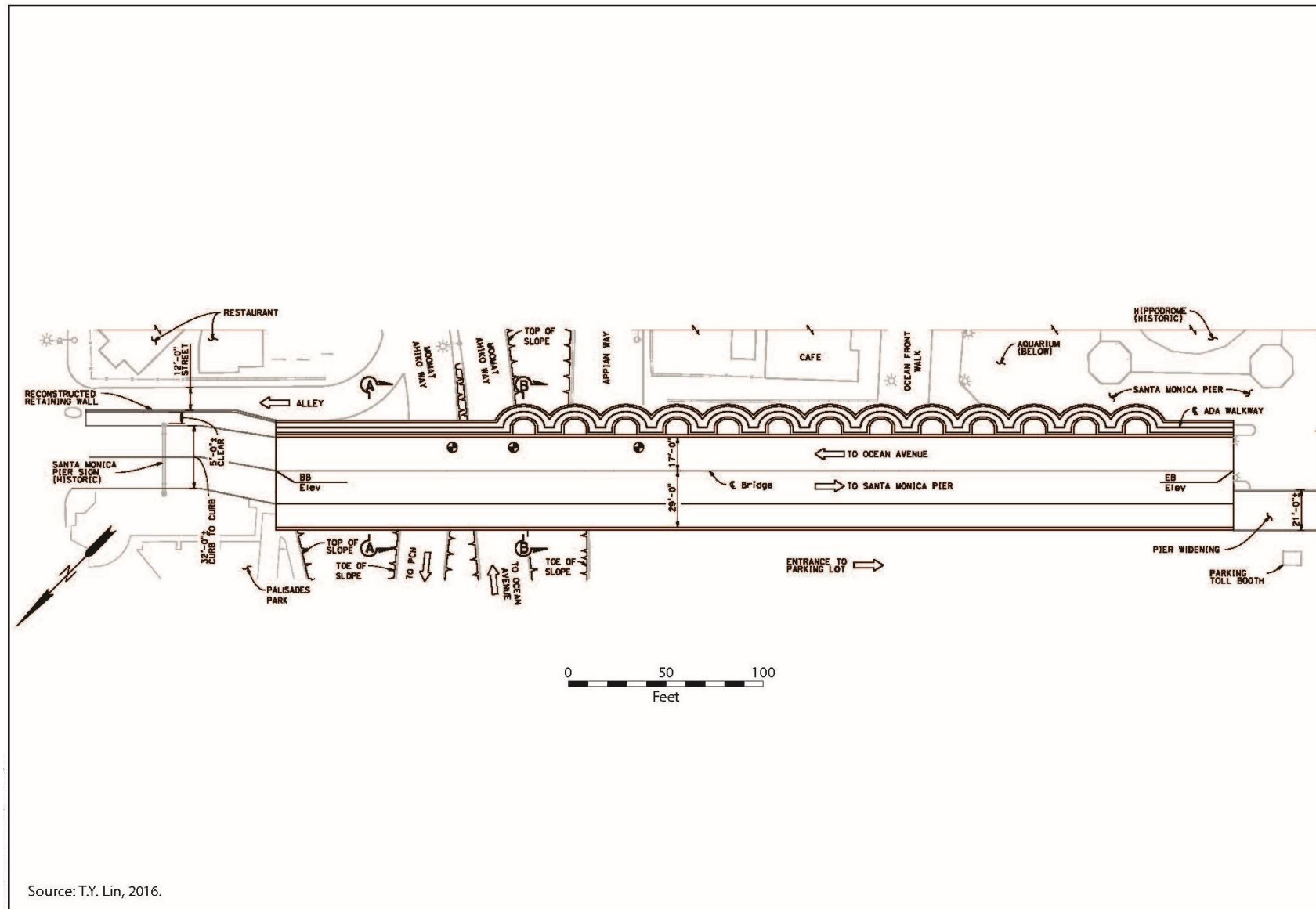


Figure 1-18. Alternatives 1 and 2, Option B

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#### **1.3.6.11 Wider Replacement Bridge on Existing Alignment and Temporary Vehicle Access Ramp North of the Pier and the Existing Bridge during Construction (former Build Alternative 2)**

This alternative (identified as Build Alternative 2 in the 2017 Draft EIR/EA [see Figures 1-17 and 1-18]) would demolish the existing bridge entirely and provide a wider bridge with the same lane capacity as the bridge described in Section 1.3.7.10. Furthermore, the replacement bridge would provide a different location for temporary vehicular access during construction and a temporary vehicle ramp from Lot 1 North. Pedestrian access from the Ocean Avenue/Colorado Avenue intersection during construction would be provided by a temporary bridge.

As in the previously described alternative, permanent relocation of the Lot 1 North entrance would be implemented, as would temporary relocation of the Lot 1 North entrance. Also, under this alternative, vehicle access to the pier during construction would be provided via a temporary vehicular ramp in Lot 1 North on the north side of the pier and west of the existing bridge alignment.

#### **1.3.6.12 Two New Bridges – New Replacement Bridge for Pedestrian, Bicycle, Emergency, and Limited Access on the Existing Alignment and New Permanent Vehicle-Only Bridge at Moss Avenue (former Build Alternative 3)**

Under this alternative (identified as Build Alternative 3 in the 2017 Draft EIR/EA [see Figures 1-19, 1-20, and 1-21]), two new bridges would be constructed. The existing Pier Bridge would be replaced with a new bridge within the existing alignment that would be between 32.5 and 40 feet wide. The replacement bridge would be designed primarily for pedestrian and bicycle use, as well as ADA-compliant access, but would also provide access for emergency vehicles. It could also provide limited access for delivery vehicles during off-peak hours. There would be no public vehicle access to the Pier Bridge for pier parking or pickups/drop-offs.

A permanent second bridge would be constructed at Moss Avenue and designated for public vehicular access to the pier deck parking lot and the pier itself. This bridge would be approximately 150 feet long and contained within the 29-foot width of the existing City right-of-way to accommodate two vehicle lanes and barriers. The bridge would span Ocean Front Walk and provide a minimum vertical clearance of 13 feet, 6 inches, per California Fire Code Title 24, Part 9, Section 503.2.1. Construction of the Moss Avenue bridge would be completed before the existing Pier Bridge would be demolished to provide continuous vehicular access to the pier during construction, thereby eliminating the need for a temporary vehicular bridge.

Lot 1 South currently has two exit driveways. The new bridge would require permanent closure of the Moss Avenue exit. To construct this bridge, the retaining walls along Moss Avenue, adjacent to the private property on the north and Lot 1 South, would need to be removed and reconstructed, which would require temporary construction easements. In Lot 1 South, approximately 35 parking spaces would be unavailable for 9 months; that area would provide a staging area for bridge construction. The spaces would be restored after construction is complete.

At the southeast end of the pier, the ADA-compliant ramp, portions of the retaining wall, and bench seating would be permanently removed. Because of limited vertical clearance, it would

not be possible to reconstruct the ramp at this location; however, there is an ADA-compliant ramp north of this location that currently provides access to the pier. The pylon lamppost on Ocean Front Walk would be in the alignment of the bridge and would need to be removed.

This bridge would require permanent removal of approximately 40 parking spaces on the deck where it connects to the pier. The pier deck parking would be reconfigured to accommodate the new vehicle entrance from the Moss Avenue bridge; an existing toll booth would be relocated as well. The pier deck at the connection to the Moss Avenue bridge would need to be reconstructed to accommodate the bridge.

As previously discussed for the temporary Moss Avenue bridge, the pier deck would need to be strengthened for a new fire lane, requiring a temporary loss of parking. Under this alternative, a portion of the southeast area of the pier, including part of the Carousel Park area, would be permanently incorporated into the project. This would require permanent removal of the concrete serpent head. This feature would be redesigned by a landscape architect, then placed in the same general area and integrated into the park to serve its original function. As discussed in Section 1.3.7.10, this alternative had two ADA options: Option A and Option B; ADA Option B is eliminated from consideration.

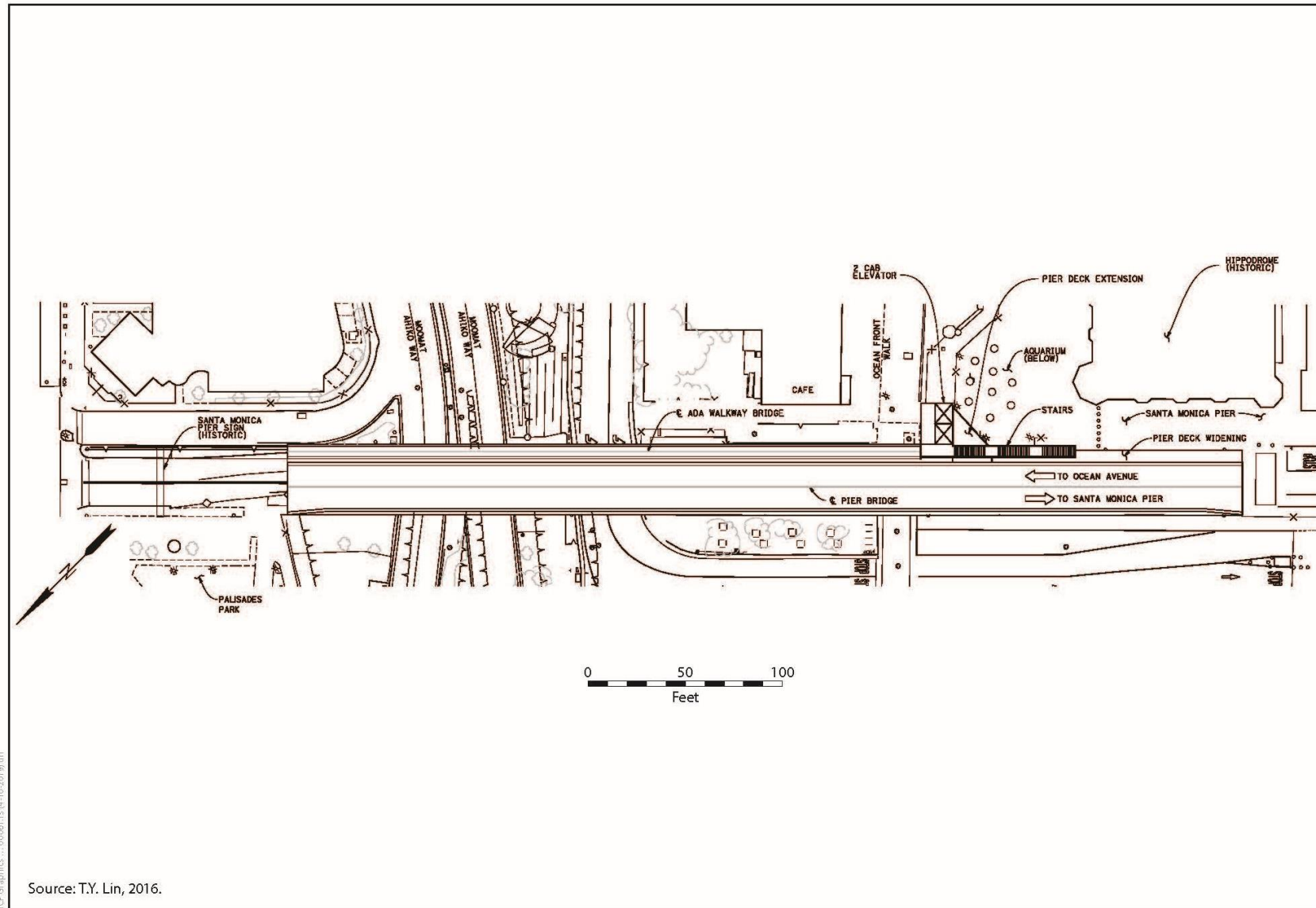


Figure 1-19. Alternative 3, Option A



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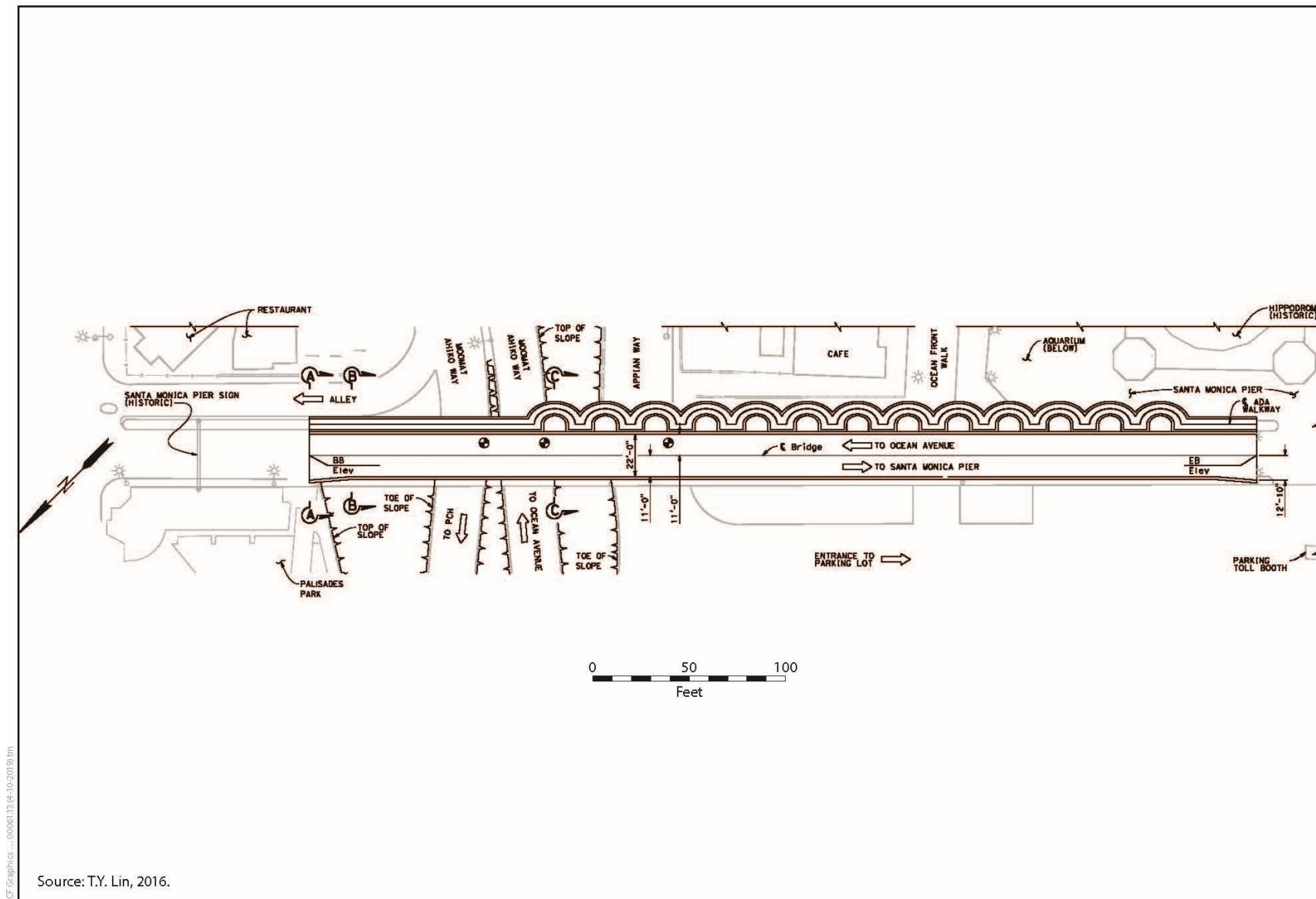
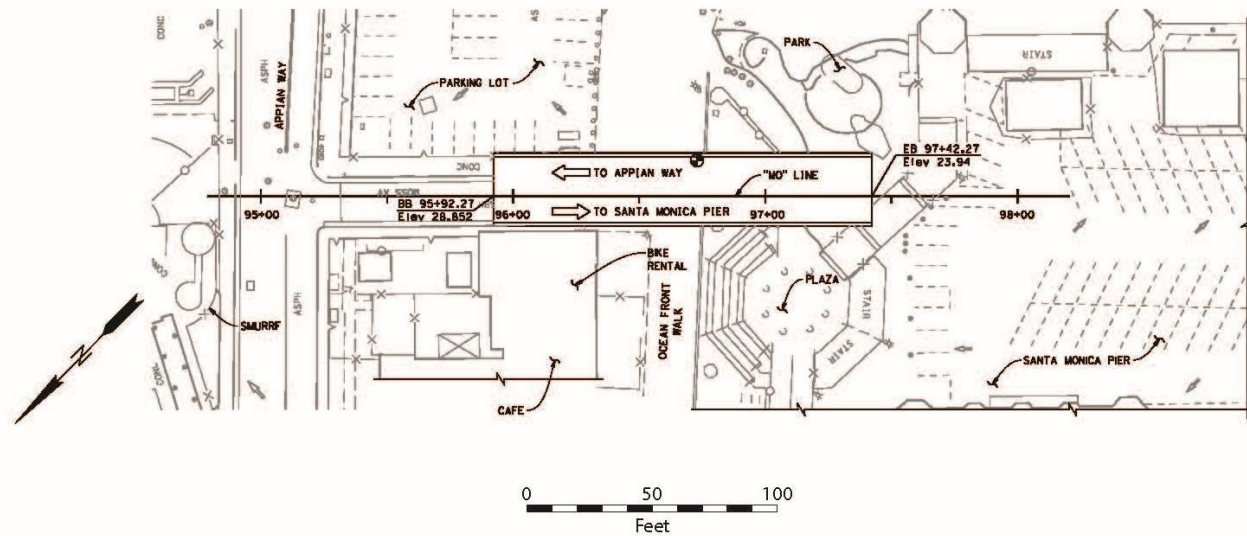


Figure 1-20. Alternative 3 Option B

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Source: T.Y. Lin, 2016.

**Figure 1-21. Alternative 3, Moss Avenue**

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Substantial comments were received concerning this alternative during circulation of the 2017 Draft EIR/EA (e.g., comments regarding construction impacts on Carousel Park, inadequate mitigation measures for protecting historic resources, removal of parking from the pier deck, inadequate analysis of historic resources and aesthetics, potential impacts on historic parcels on Ocean Front Walk, and potential visual impacts along the Ocean Front Walk view corridor). After consideration of the impacts on Carousel Park and the Ocean Front Walk view corridor, this alternative was eliminated.

#### **1.3.6.13 Alternatives 3 through 8: As Detailed within the 2019 Notice of Preparation (NOP)**

In May of 2021, as a result of the preliminary findings of the Section 106 documentation and Section 4(f) analysis, the proposed build Alternatives 3 through 8, were discovered to have the potential to significantly affect Loeff's Hippodrome and the historic Pier Sign. It was found that the elevator towers proposed in Alternatives 3 through 8 had the potential to have a significant unavoidable visual impact to Loeff's Hippodrome, resulting in a potential Finding of Adverse Effect under Section 106. Loeff's Hippodrome is an NHL listed on February 27, 1987, under the theme of Recreation and automatically listed in the National Register of Historic Places (NRHP) in 1988 under Criterion A. Alternative 8 was also found to have a potential significant unavoidable impact to the historic Pier sign, due to its relocation and new truss design.

A Finding of Adverse Effect under Section 106 for impacts to Loeff's Hippodrome and the Pier Sign would also lead to a potential constructive use of both historic properties under Section 4(f), leading to the need for a least harm analysis. This would render Alternatives 1 and 2 the only alternatives under consideration that would have the potential to avoid, minimize and mitigate potential impacts to these valuable historic resources under Section 4(f) and Section 106. As such, the City decided to eliminate Alternatives 3 through 8 from further consideration. This has resulted in the No Build Alternative, Alternative 1 and Alternative 2 (Locally Preferred Alternative) being the alternatives under consideration within this Recirculated Draft EIR/EA.

#### **Alternatives 3 and 4: In-Kind Bridge Replacement with 10-Foot-Wide Pedestrian/ADA-Compliant Path**

Alternatives 3 and 4 would provide an in-kind replacement bridge and a pedestrian/ADA-complaint pedestrian path on a separate structure. The replacement bridge would have a length of approximately 450 feet; the total width of the two structures would be between 38 and 68 feet, depending upon the alternative and location along the alignment. Both alternatives would provide three paths on two structures.

The main replacement bridge would provide a 20-foot-wide roadway for vehicles and bicycles and a 15-foot-wide sidewalk for pedestrians. The roadway and sidewalk would descend at a slope of approximately 10 percent. The total width of the bridge would be approximately 38 feet.

A separate structure would be dedicated to an ADA-complaint pedestrian path, providing a 10-foot-wide path on a 12-foot structure and descending at a slope of approximately 5 percent. This structure would connect to two elevators and a stairway for access to the pier deck. The width of this structure would vary between approximately 12 feet and 29 feet, depending upon the

location. There would be an approximate 2-foot separation between the two structures. Two variations in the placement of these paths are being considered, as described below.

Under Alternative 3, vehicles and bicycles would follow the roadway on the south side of the bridge, the sidewalk would be immediately adjacent and to the north, and the ADA-compliant pedestrian structure would be north of the sidewalk path. The elevators would be immediately west of Ocean Front Walk, extending slightly outside the street right-of-way line. The stairway would extend west of the elevators and down to the pier deck. The pier deck would extend in a north-south direction underneath both structures, then east from the bottom of the stairs to the elevators.

Access to the vehicle/bicycle roadway from Ocean Avenue would require a northeast-to southwest taper of the existing curbs. The historic pier sign would be protected in place. This alternative would also require an approximately 12-foot-wide extension of the existing pier deck over a length of approximately 282 feet on the north side of the bridge.

Under Alternative 4, the vehicle/bicycle and ADA-compliant pedestrian path locations would be reversed. Vehicles and bicycles would use the roadway on the north side of the bridge, and pedestrians would use the sidewalk on the south side of the bridge. The ADA-compliant pedestrian structure would be south of the main replacement bridge. The two elevators would be immediately adjacent to and west of Ocean Front Walk, and the stairway would be a short distance west of the elevators. An extension of the pier deck would be provided adjacent to the elevators. The length of the bridge would be essentially the same as under Alternative 3.

The vehicle/bicycle roadway curb taper to Ocean Avenue would not be required under this alternative. The historic pier sign would require relocation to an area approximately 22 feet north of its existing location. The approximately 240-foot pier deck extension west of the bridge, on the north side of the pier, would also be required under this alternative.

### **Alternatives 5 and 6: Narrow Pier Bridge Replacement with 15-Foot-Wide Pedestrian/ADA-Compliant Path**

Alternatives 5 and 6 would provide a new replacement bridge for vehicles and bicycles only and a separate ADA-compliant path for pedestrians. The replacement bridge would be approximately 450 feet in length. The two structures would be between 23 feet and 68 feet wide, depending upon the alternative and location along the alignment.

Both alternatives would provide two paths. The dedicated vehicle and bicycle bridge would have a 20-foot-wide roadway and descend at a slope of approximately 10 percent. The pedestrian-only structure would provide a 15-foot-wide path and descend at a slope of approximately 5 percent. This path would connect to two elevators and a stairway for access to the pier deck. The vehicle/bicycle structure would be 22 feet, 10 inches wide, and the pedestrian structure would be between 17 feet, 0 inches and 43 feet, 8 inches wide, depending upon the alternative and location along the alignment. The two structures would be separated by a space of 2 feet. Two path variations are being considered, as described below.

Under Alternative 5, the vehicular/bicycle bridge would be on the north side, and the pedestrian structure would be on the south side. Two elevators would be immediately west of Ocean Front Walk, south of the structure. A stairway would be provided adjacent to and west of the elevators.



This alternative would require an approximately 10-foot-wide extension of the existing pier deck over a length of approximately 240 feet west of the vehicular/bicycle bridge. Pier deck reconstruction would also be required on the south side of the bridge to accommodate the new stairs, approximately 26 feet wide by 142 feet in length and an extension of the Pier deck would be provided adjacent to the elevators.

The historic pier sign would need to be relocated to an area approximately 22 feet to the north.

Under Alternative 6, the vehicle/bicycle bridge would be on the south, and the ADA-compliant pedestrian structure would be on the north. The two elevators would be immediately adjacent to and west of Ocean Front Walk, within the street right-of-way, and the stairway would be west of the elevators.

The length of the bridge would be essentially the same as under Alternative 5. Access to the vehicle/bicycle roadway from Ocean Avenue would require a northeast-to southwest taper from the existing curbs. The historic pier sign would be protected in place. The pier deck extension, approximately 240 feet in length, would also be required under this alternative. The pier deck would be extended in a north-south direction underneath both structures, then east from the bottom of the stairs to the elevators.

### **Alternatives 7 and 8: Wide Pier Bridge Replacement with 10-Foot-Wide Pedestrian/ADA-Compliant Path**

Alternatives 7 and 8 would provide a wide replacement bridge and a pedestrian/ADA-compliant path on a separate structure. The replacement bridge would have a length of approximately 450 feet. The total width of the two structures would be between 48 feet, 10 inches and 85 feet, 10 inches, depending upon the alternative and location along the alignment. Both alternatives would provide three paths.

The main replacement bridge would provide a 34-foot-wide roadway for vehicles and bicycles and a 12-foot-wide sidewalk for pedestrians, with a total structure width of 48 feet, 10 inches. The roadway and sidewalk would descend at a slope of approximately 10 percent. A separate structure would be dedicated to pedestrian and ADA-compliant use and provide a 10-foot-wide path on a 12-foot-wide structure and descend at a slope of approximately 5 percent. This structure would connect to two elevators and a stairway for access to the pier deck. The width of this structure would vary from 12 feet, 0 inches to 35 feet, 8 inches, depending upon the location along the alignment. The two structures would be separated by a space of 2 feet. Two variations for these paths are being considered, as described below.

Under Alternative 7, the vehicular bridge would be located to the north, with the sidewalk on the north side of the bridge and vehicles and bicycles on the south side. The pedestrian/ADA-compliant path would be on the south side of the main bridge. Elevators would be located immediately west of Ocean Front Walk and south of the structure, beyond the existing street right-of-way. A stairway west of the elevators would extend to the pier deck. An extension of the pier deck would be provided adjacent to the elevators.

This alternative would require an approximately 21-foot-wide extension of the existing pier deck over a length of approximately 240 feet west of the bridge. Pier deck reconstruction would be required on the south side of the bridge, affecting an area approximately 5 feet wide by 82 feet long.

A new retaining wall would be required under this alternative. The wall would be on the south side of the bridge, at the entrance to northbound MAW as it turns east to the intersection at Ocean Avenue. A reduced street width at this location (11 feet, 0 inches) would also be required. The historic pier sign would need to be relocated to an area approximately 7 feet, 6 inches feet to the north and modified to provide increased vertical clearance.

Under Alternative 8, the pedestrian/ADA-compliant structure would be to the north, and the vehicular bridge would be to the south. The sidewalk would be on the north side of the vehicular bridge, and the roadway would be on the south side. The elevators would be on the north side, immediately west of Ocean Front Walk. The stairway would immediately west of the elevators. The pier deck would be extended in a north–south direction underneath both structures, then east from the bottom of the stairs to the elevators.

This alternative would require an approximately 22-foot-wide extension of the existing pier deck over a length of approximately 290 feet west of the bridge. Pier deck reconstruction would not be required on the south side of the bridge, but the pedestrian walkway in front of the restaurant area west of Loeff Hippodrome would be reduced to 6 feet, 5 inches.

Both a new retaining wall and a reduced street width (11 feet, 0 inches) on northbound-to-eastbound MAW to the intersection with Ocean Avenue would be required under this alternative. The historic pier sign would need to be relocated to an area approximately 6 feet, 9 inches to the south and modified to provide increased vertical clearance.

Under this alternative, the placement of the elevators and the northside pier deck extension would result in an encroachment into a state-owned right-of-way at Lot 1 North. The entrance to Lot 1 North would require modification or reconfiguration of the existing lanes. **Alternative Design Features Eliminated from Further Consideration**

#### **1.3.7.1 Temporary Pedestrian Bridge North of Pier Bridge**

Locating the temporary pedestrian bridge north of the Pier Bridge alignment, rather than to the south, was originally considered. If the temporary pedestrian bridge were to be located on the north side, it would span MAW, which increases in elevation north of the Pier Bridge, resulting in a higher temporary bridge than the existing Pier Bridge and requiring either a steeper grade or longer structure in Lot 1 North. This option could have vertical clearance conflicts with delivery trucks and emergency vehicles. The contractor's staging area has been identified within Lot 1 North; therefore, the majority of project construction activity and equipment movement would be coming from the north side of the Pier Bridge, which would result in potential conflicts with activity on the temporary pedestrian bridge. Given these conflicts, this alternative was eliminated from further consideration.

#### **1.3.7.2 Staged Demolition and Construction of Pier Bridge**

The project could proceed using a staged demolition and construction process, which could eliminate the need for temporary pedestrian and vehicular bridges. However, there would be several significant drawbacks.

Staged construction would involve removing either the southern or northern half of the bridge while maintaining the other half for public use. Because the bridge is relatively narrow (34 feet),

the remaining width during staged construction would be approximately 16 feet. A concrete barrier would be needed where the bridge would be cut in half; the railing on the opposite side would leave a usable width of 13 feet. This width would not accommodate vehicles and pedestrians safely. California Fire Code Title 24, Part 9, Section 503.2.1, requires a minimum width of 20 feet for emergency vehicles. Therefore, a separate vehicular bridge or ramp would be required during construction.

Another drawback of staged construction would be related to the structural supports for the bridge (referred to as “bents”). The existing bridge has only two columns per bent. Removing half of the bridge would remove a column at each bent; this would require the installation of temporary columns and foundations at each of the 16 existing bents. Given the narrow construction space, the temporary columns and foundations could become obstructions and interfere with construction. Because the bridge would be open for public use, Caltrans would require a seismic analysis to be performed on the remaining half of the bridge, the half with the temporary supports, to ensure its ability to meet the structural criteria (i.e., “no collapse”). Considering the structural deficiencies of the existing bridge, it is anticipated that such criteria could not be met without seismic retrofitting of the remaining half of the bridge. The cost for temporary columns, foundations, and retrofitting could be significant because of the large number of bents that would be affected.

Demolition and construction of the bridge in halves, rather than in its entirety, would require one stage of construction to be performed from the south side. Because access from the south is limited, or not possible at some locations because of adjacent properties and the pier, adequate access to the work area could not be provided. Also, staged demolition and construction would be expected to add an additional 6 months to the construction schedule, further increasing construction costs and extending the length of time that construction impacts on surrounding properties would be experienced. Therefore, after considering these drawbacks, staged demolition and construction of the Pier Bridge was eliminated.

### 1.3.8 Permits and Approvals Needed

The permits, reviews, and approvals listed below would be required for project construction.

Agency	Permit/Approval
California Coastal Commission	Coastal development permit
California State Historic Preservation Officer	Approval/concurrence for finding of effect and memorandum of agreement
Los Angeles Regional Water Quality Control Board	National Pollutant Discharge Elimination System permit
City of Santa Monica Landmarks Commission	Certificate of appropriateness and review of design plans concerning construction near landmark properties, including, but not limited to, Palisades Park, the historic Loeff Hippodrome, the Pier Sign, Carousel Park, Historic Pier District, and Santa Monica Pier
City of Santa Monica City Council	Approval of project and certification of CEQA document; adoption of findings of fact, statement of overriding considerations, and mitigation measures (if applicable)
Caltrans	Approval of NEPA document and encroachment permit for Pacific Coast Highway

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## Chapter 2 Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures

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The environmental issues discussed below were evaluated as part of scoping and initial environmental analysis, including consideration of comments received during circulation of the draft environmental impact report/environmental assessment (Draft EIR/EA). It was found that no adverse effects under the National Environmental Policy Act (NEPA) or significant impacts under the California Environmental Quality Act (CEQA) would result from the proposed project for these environmental issues. As a result, there is no further discussion of the issues below within this document.

**Wild and Scenic Rivers.** Projects that affect wild and scenic rivers are subject to the National Wild and Scenic Rivers Act (16 United States Code ([USC] 1271) and the California Wild and Scenic Rivers Act (California Public Resources Code [PRC] Section 5093.50 et seq.).

There are three possible wild and scenic designations:

1. *Wild*: Undeveloped, with river access by trail only.
2. *Scenic*: Undeveloped, with occasional river access by road.
3. *Recreational*: Some development allowed, with road access.

No designated wild and scenic rivers exist within the project study area; therefore, the proposed project would not have the potential to adversely affect resources that are protected under the National Wild and Scenic Rivers Act (16 USC 1271) or the California Wild and Scenic Rivers Act (PRC Section 5093.50 et seq.).

**Farmlands/Timberlands.** NEPA and the Farmland Protection Policy Act (FPPA) (7 USC 4201–4209 and its regulations, 7 Code of Federal Regulations [CFR] Part 658) require federal agencies, such as the Federal Highway Administration, to coordinate with the Natural Resources Conservation Service if their activities may irreversibly convert farmland (directly or indirectly) to nonagricultural use. For purposes of the FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance.

CEQA also requires the review of projects that would convert prime farmland, unique farmland, and land of statewide or local importance to nonagricultural use and the review of projects that would conflict with a Williamson Act contract. The main purposes of the Williamson Act are to preserve agricultural land and encourage open space preservation and efficient urban growth. The Williamson Act provides incentives to landowners, such as reduced property taxes, that discourage the early conversion of agricultural lands and open space to other uses. In addition, CEQA requires review of impacts on forest land (as defined in Public Resources Code section 12220[g]) and on timberland, as defined by the California Timberland Productivity Act of 1982 (California Government Code Section 51100 et seq.), which was enacted to preserve forest resources. Similar to the Williamson Act, this program gives landowners tax incentives to keep

their land in timber production. Contracts involving Timber Production Zones are on 10-year cycles. Although state highways are exempt from provisions of the act, the California Secretary of Resources and the local governing body are notified in writing if a new or additional right-of-way from a Timber Production Zone would be required for a transportation project.

The project study area, which is highly urbanized, consists of beachfront areas and developed uses, including visitor-serving commercial, residential, and civic/recreational uses. No farmlands or timberlands exist within the project study area; therefore, the proposed project would not have the potential to adversely affect resources that are protected by the FPPA (7 USC 4201–4209 and its regulations, 7 CFR Part 658), the Williamson Act, or the California Timberland Productivity Act of 1982 (California Government Code Section 51100 et seq.).

The purpose of the balance of this chapter is to provide the reader with the information necessary to understand the potential environmental consequences or impacts due to construction and operation of the proposed Santa Monica Pier Bridge Replacement Project. The discussions focus on the impacts of Build Alternatives 1 and 2 (LPA) (see Chapter 1, Proposed Project, for a detailed description of the project). Where appropriate, impacts that would occur under the No-Build Alternative are also discussed. The discussions in this chapter are provided in compliance with the regulations of NEPA and CEQA. Three environments under which impact considerations are evaluated are presented: human, physical, and biological.

## Human Environment

### 2.1 Land Use

#### 2.1.1 Existing and Future Land Use

**Land Use in Project Area:** The project site is surrounded by residential properties, businesses, roads, public walkways, the beach, a park, and structures on all sides and underneath the Santa Monica Pier Bridge (Pier Bridge). Institutional uses within walking distance to the pier include Santa Monica City Hall and the Rand Corporation campus, both of which are east of the pier.

Figure 2.1-1 shows the existing residential, commercial, and public land uses in the vicinity of the project site.

##### 2.1.1.1 The City of Santa Monica

The City of Santa Monica (City) zoning and land use planning maps show that the project site is entirely within an area that has been designated and zoned as the Oceanfront District. Designated land uses east of the project site vary between medium-density housing and parks/open space. Designated land uses west of the project site are for parks and open space. Designated land uses north of the project site include the Downtown District, Civic Center District, and parks and open space. Given that the project area is largely developed and dedicated to open space and recreational uses, it is likely that any new development would be limited to in-fill projects or reconstruction or renovation of existing uses.

#### 2.1.2 Consistency with State, Regional, and Local Plans and Programs

A number of land use plans and transportation policies are applicable within the study area for the proposed project. This section provides an analysis of the project build alternatives in relation to the transportation and land use policies included in the general federal, state, and regional planning documents.

##### 2.1.2.1 Affected Environment

###### Federal Statewide Transportation Improvement Program

The Federal Statewide Transportation Improvement Program (FSTIP) is a 4-year intermodal program for transportation projects and consistent with statewide transportation planning processes, metropolitan plans, and Federal Transportation Improvement Programs. Projects included under the FSTIP include, but are not limited to, highway and bridge improvements; transit, rail, and bus facilities; high-occupancy vehicle lanes; signal synchronization projects; intersection improvements; and freeway ramp projects. The build alternatives are included in the 2017 FSTIP and proposed for funding from the Highway Bridge Program, with an individual project ID number of BHLO-5107(033). The 2017 FSTIP was approved by the Federal Highway Administration and the Federal Transit Administration on December 16, 2016.





**Figure 2.1-1. City of Santa Monica Districting Map**

## **Southern California Association of Governments Regional Transportation Plan/Sustainable Communities Strategy**

The Southern California Association of Governments (SCAG) is mandated by the federal government, as the Metropolitan Planning Organization, to develop regional plans for transportation, growth management, hazardous waste management, and air quality. On May 7, 2020, SCAG's Regional Council adopted the 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2020) (also known as *Connect SoCal*) for federal transportation conformity purposes only. The Regional Council approved the 2020–2045 RTP/SCS on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so the region can grow smartly and sustainably. A major component of the 2020 RTP/SCS is the Project List, which contains thousands of individual transportation projects that aim to improve the region's mobility and air quality and revitalize the economy. The proposed project is included in the 2020 RTP/SCS project list.

The following goals adopted by SCAG in the 2020 RTP/SCS are relevant to the proposed project:

- Goal 2: Improve mobility, accessibility, reliability, and travel safety for people and goods.
- Goal 3: Enhance the preservation, security, and resilience of the regional transportation system.
- Goal 4: Increase person and goods movement and travel choices within the transportation system.
- Goal 7: Adapt to a changing climate and support an integrated regional development pattern and transportation network.

## **The City of Santa Monica General Plan**

The City of Santa Monica General Plan provides comprehensive long-term planning guidance for the city. The elements of the general plan, which include the Land Use and Circulation Element, make up the framework for decision-making regarding growth and development in the city and contain goals and policies that are pertinent to the proposed project. Therefore, relevant goals and policies of the general plan are analyzed.

## **Land Use Plan for the Coastal Zone**

The Local Coastal Program (LCP) of the City of Santa Monica has been formulated to implement, at the local level, the California Coastal Act of 1976. The LCP has two components, the Land Use Plan and the Implementation Plan. Santa Monica City Council adopted the most recent LCP Land Use Plan on October 9, 2018. However, the 2018 Land Use Plan is still pending certification from the California Coastal Commission, and as such, the 1990 Land Use Plan remains in effect.

## **Consistency Determination for Relevant Policies, Goals, and Objectives**

Table 2.1-1 shows the project's consistency with applicable 2020 SCAG RTP/SCS goals. Table 2.1-2 shows the project's consistency with applicable City of Santa Monica General Plan goals, objectives, and policies.

**Table 2.1-1. Consistency with Applicable 2020 SCAG RTP/SCS Goals.**

<b>Goal Number</b>	<b>2020–2045 RTP/SCS Goals, Principles, and Strategies</b>	<b>Build Alternatives 1 &amp; 2 (LPA)</b>
<b>Goal 1</b>	Encourage regional economic prosperity and global competitiveness.	<b>All Build Alternatives: Not Applicable.</b> Due to the type of project proposed, a bridge replacement, the project implementation would not preclude or induce future economic development.
<b>Goal 2</b>	Improve mobility, accessibility, reliability, and travel safety for people and goods.	<b>All Build Alternatives: Consistent.</b> The proposed project would correct deficiencies within the bridge and increase safety for vehicles, bicyclists, and pedestrians. The build alternatives would enhance access for individuals with limited mobility. Therefore, the proposed Project is consistent with this goal.
<b>Goal 3</b>	Enhance the preservation, security, and resilience of the regional transportation system.	<b>All Build Alternatives: Consistent.</b> As stated in the project description, the Pier Bridge has a sufficiency rating of 17; it is considered structurally deficient. By correcting deficiencies within the bridge, the project would preserve and ensure a sustainable transportation system, including an important link to a regional light rail line (Expo Line).
<b>Goal 4</b>	Increase person and goods movement and travel choices within the transportation system.	<b>All Build Alternatives: Consistent.</b> As stated above, the proposed project would correct deficiencies within the bridge and increase safety for vehicles, bicyclists, and pedestrians. The build alternatives would also enhance access for individuals with limited mobility.
<b>Goal 5</b>	Reduce greenhouse gas emissions and improve air quality.	<b>All Build Alternatives: Not Applicable.</b> The proposed project would not have a significant impact on air quality within the region. The replacement of the Pier Bridge would not change existing traffic patterns/circulation or result in an increase in VMT.
<b>Goal 6</b>	Support healthy and equitable communities.	<b>All Build Alternatives: Not Applicable.</b> Due to the type of project proposed, a bridge replacement, the project implementation would not have an adverse influence on healthy and equitable communities.
<b>Goal 7</b>	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	<b>All Build Alternatives: Consistent.</b> The project proposes to repair, reconstruct, and improve the seismically deficient Pier Bridge, an important part of the city's circulation system. Furthermore, the proposed project would provide a safer, more-efficient structure that would encourage bicycling and walking to and from the pier and beach area.

Goal Number	2020–2045 RTP/SCS Goals, Principles, and Strategies	Build Alternatives 1 & 2 (LPA)
<b>Goal 8</b>	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	<b>All Build Alternatives: Not Applicable.</b> The project proposes to repair, reconstruct, and improve the seismically deficient Pier Bridge, an important part of the city's circulation system. Even though, the proposed project would encourage bicycling and walking to and from the pier and beach area, it would not result in more efficient travel or utilize new transportation technologies.
<b>Goal 9</b>	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	<b>All Build Alternatives: Not Applicable.</b> The proposed Project would does not have a housing or development component.
<b>Goal 10</b>	Promote conservation of natural and agricultural lands and restoration of habitats.	<b>All Build Alternatives: Not Applicable.</b> The proposed Project does not propose the conversion of any significant natural or agricultural lands to urban use.

**Table 2.1-2. Consistency of Build Alternatives with Applicable Local Plan Policies**

Relevant Goals and Objectives	Relevant Policies	Build Alternatives
<b>City of Santa Monica Comprehensive General Plan – Land Use and Circulation Element</b>		
<b>Goal LU4:</b> Complete Sustainable Neighborhoods – Create complete neighborhoods that exemplify sustainable living practices with open spaces, green connections, diverse housing, local employment, and local-serving businesses that meet the daily needs of residents and reduce vehicle trips and greenhouse gas emissions.	<b>Policy LU4.7, Pedestrian, Bicycle, and Transit Access.</b> Emphasize pedestrian and bicycle access throughout the city, with a special focus on neighborhood gathering areas. Provide direct and convenient bicycle and pedestrian connections between destinations. Prioritize land use patterns that generate high transit ridership at major transit stops.	<b>All Build Alternatives: Consistent.</b> The site plan for the proposed project would improve pedestrian and bicycle safety as well as accessibility.
<b>Goal LU8:</b> Reduction of Vehicle Trips/Management of Congestion – Establish a complete transportation network that supports integrated land use. Ensure that transportation supports human activity and access to land uses through a diverse multi-modal transportation system that incentivizes walking, biking, and transit and reduces the need for vehicle trips.	<b>Policy LU8.3, Pedestrian, Bicycle and Transit Connections.</b> Ensure pedestrian, bicycle, and transit mobility by creating facilities for comfortable walking throughout the city, a complete and safe bicycle network, and convenient and frequent transit service that will make transit an attractive option for all types of trips.	<b>All Build Alternatives: Consistent.</b> The proposed build alternatives would provide safety and comfort upgrades for pedestrians and bicyclists and ensure long-term mobility and access to regional passenger rail lines as well as the beach and pier areas.  <b>All Build Alternatives: Consistent.</b> The proposed project would invest in improvements related to safe access for pedestrians and bicyclists and ensure the longevity of these connections in the city.

Relevant Goals and Objectives	Relevant Policies	Build Alternatives
	<b>Policy LU8.4, Roadway Management.</b> Prioritize investment in amenities for pedestrian, bicycle, and transit movement to facilitate green connections and mobility.	
<b>Goal LU13:</b> Preserve and enhance the city's unique character and identity and support the diversity of neighborhoods, boulevards, and districts within the city.	<b>Policy LU13.1, Maintain Character.</b> Reinforce the city's distinctive natural, social, and environmental characteristics, including its beachfront and connections to the water, civic and cultural institutions, terrain and climate, and the geographic fabric of neighborhoods and boulevards.	<b>All Build Alternatives: Consistent.</b> The proposed project would help maintain and improve the existing connection between the beachfront and pier areas as well as the rest of the city.
<b>Goal LU15:</b> Enhance Santa Monica's Urban Form – Encourage well-developed design that is compatible with the neighborhoods, responds to the surrounding context, and creates a comfortable pedestrian environment.	<b>Policy LU15.5, Pedestrian and Bicycle Connectivity.</b> Encourage a design of sites and buildings that facilitates easy pedestrian- and bicycle-oriented connections and minimizes the separation created by parking lots and driveways.	<b>All Build Alternatives: Consistent.</b> The proposed build alternatives would be designed to facilitate and improve pedestrian and bicycle connections between the pier and beach area as well as the rest of the city.
<b>Goal LU18:</b> Enhance the Beach and Oceanfront – Celebrate the beach and oceanfront as the city's most valuable natural, recreational, and public asset.	<b>Policy LU18.1, Accessibility.</b> Preserve, protect, enhance, and maintain open access to the city's beach areas in a manner that respects adjacent uses, with particular emphasis on pedestrian and bicycle access. <b>Policy LU18.3, Increase Connections.</b> Create additional connections and upgrade existing routes to the beach and oceanfront.	<b>All Build Alternatives: Consistent.</b> The proposed build alternatives would be designed to maintain access to beach areas and adjacent uses as much as possible. After construction, accessibility would be improved, particularly for pedestrians and bicyclists. <b>All Build Alternatives: Consistent.</b> The proposed project would upgrade an existing route to the beach and oceanfront.
<b>Goal D18:</b> Preserve the low-scale character and appearance of the beach and Oceanfront District and ensure its continued role as Santa Monica's character-defining open space.	<b>Policy D18.7:</b> Preserve and enhance the Santa Monica Pier as a key component of Santa Monica's history and character.	<b>All Build Alternatives: Consistent.</b> The proposed project would create a bridge with a much longer lifespan than the existing Pier Bridge, which would enhance future use of Santa Monica Pier while incorporating a context-sensitive design, consistent with the area's existing character.



Relevant Goals and Objectives	Relevant Policies	Build Alternatives
<b>Goal D19:</b> Strengthen physical and visual connections between the city and beach by overcoming physical barriers such as the bluffs and Pacific Coast Highway with improved pedestrian, bicycle, and open space linkages.	<b>Policy D19.1:</b> Enhance connections between the city and the beach in accordance with policies set forth in the Open Space Element. <b>Policy D19.6:</b> Preserve the public view corridors, including western views to the ocean from the east–west streets and boulevards, views to the ocean and the pier from Palisades Park, and views from the pier to the city.	<b>All Build Alternatives: Consistent.</b> The proposed build alternatives would enhance the existing connection provided by the Pier Bridge and be in compliance with policies regarding access in the Open Space Element. <b>All Build Alternatives: Consistent.</b> The height of the replacement bridge would not exceed the height of the existing bridge, and none of the associated structures would impede existing public views to the ocean and pier or from the ocean and pier to the city. Therefore, no views would be affected by the proposed project.
<b>Goal T6:</b> Enable everyone to walk comfortably everywhere in Santa Monica.	<b>Policy T6.4:</b> Use a combination of physical improvements and programs to promote walking.	<b>All Build Alternatives: Consistent.</b> The proposed project would improve pedestrian infrastructure to encourage walking to the pier and beach areas from the city or the nearby light rail station.
<b>Goal HP1:</b> Preserve and protect historic resources in Santa Monica through the land use decision-making process.	<b>Policy HP1.3</b> Ensure that new development, alterations, or remodeling on or adjacent to historic properties are sensitive to historic resources and compatible with the surrounding historic context.	<b>All Build Alternatives: Consistent.</b> Development of the proposed project would not have significant impacts or adverse effects on surrounding historic landmarks (i.e., Santa Monica Pier, the pier sign, Palisades Park, Looff Hippodrome, southerly adjacent buildings on Ocean Front Walk) because these resources would be protected and preserved. The proposed project elements would be designed to be compatible with and sensitive to the existing historic character and context in the surrounding area.
<b>City of Santa Monica Comprehensive General Plan – Conservation Element</b>		
N/A	<b>Policy 14:</b> The City shall seek to maintain public use and accessibility to the beach.	<b>All Build Alternatives: Consistent.</b> As stated in the project description, the existing Pier Bridge has a sufficiency rating of 17 and is considered structurally deficient. By correcting deficiencies in the existing bridge, the project would help preserve and ensure accessibility to the beach and pier.
N/A	<b>Policy 15:</b> The City shall protect the environmental quality of the beach.	<b>All Build Alternatives: Consistent.</b> The proposed project would replace an existing bridge in a highly developed portion of the Coastal Zone and be designed and constructed to avoid, minimize, and/or mitigate potential environmental effects on the beach.
N/A	<b>Policy 16:</b> The City shall preserve the scenic environment of the coastal areas, the boundaries of which will be specified in the implementation program section.	<b>All Build Alternatives: Consistent.</b> The proposed project would not have an adverse effect on the existing scenic environment of the coastal areas. The build alternatives would include context-sensitive designs.

Relevant Goals and Objectives	Relevant Policies	Build Alternatives
<b>City of Santa Monica Comprehensive General Plan – Noise Element</b>		
<b>Goal 1:</b> Where feasible, provide for the reduction of noise where the noise environment is unacceptable.	<b>Policy 1:</b> Provide for measures to reduce noise impacts from transportation noise sources, including: <ul style="list-style-type: none"> <li>• Ensure the inclusion of noise mitigation measures in the design of new roadway projects in Santa Monica.</li> <li>• Attempt to reduce transportation noise through proper design and coordination of routing.</li> </ul>	<b>All Build Alternatives: Consistent.</b> The build alternatives would be constructed mostly during daytime hours, to the extent feasible, to avoid noisy construction activities at night. After construction, the proposed project would not result in a substantial increase in noise. In addition, proper design and coordination of routing have been taken into consideration for the proposed project.
<b>City of Santa Monica Comprehensive General Plan – Historic Preservation Element</b>		
<b>Goal 4:</b> Protect historic and cultural resources from demolition and inappropriate alterations.	<b>Objective 4.5:</b> Protect historic views and landscapes.	<b>All Build Alternatives: Consistent.</b> The views and landscapes within historic Palisades Park and at Santa Monica Pier would not be adversely affected by the project, nor would nearby adjacent historic views and landscapes be affected.
<b>City of Santa Monica Comprehensive General Plan – Open Space Element</b>		
<b>Objective 1:</b> Develop and maintain a diversified and balanced system of high-quality open space.	<b>Policy 1.1:</b> Preserve existing public open space.	<b>All Build Alternatives: Consistent.</b> Construction of the project alternatives would have temporary effects on the southeastern corner of the pier and areas adjacent to the pier and Palisades Park where the bridge meets these two properties. However, access to the pier, Palisades Park, the beach, Ocean Front Walk, and surrounding park and open space would be maintained during construction.  After construction of the proposed project, access to the pier and beachside areas, which are considered some of the most important open space amenities in the city, would be improved compared with existing conditions.
<b>City of Santa Monica Comprehensive Local Coastal Program – Land Use Plan</b>		
N/A	<b>General Access – Policy 12:</b> Consistent with the policies listed herein, any new or existing public accessways to the beach shall be designed with sensitivity to the needs of the elderly, disabled persons, the very young, and the economically disadvantaged. The City shall improve access for the disabled to the shoreline itself.	<b>All Build Alternatives: Consistent.</b> The replacement bridge would improve existing access for the disabled by meeting Americans with Disabilities Act standards.



Relevant Goals and Objectives	Relevant Policies	Build Alternatives
N/A	<b>General Access – Policy 39:</b> New development shall ensure stability and structural integrity and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs.	<b>All Build Alternatives: Consistent.</b> The proposed project would replace the existing, structurally deficient bridge. The purpose of the proposed project is to correct deficiencies in the existing bridge and make it safer for vehicular, bicycle, and pedestrian use. The project would ensure stability and structural integrity for the bridge. Construction of the project will not substantially alter natural landforms along the bluffs.
N/A	<b>Environmental Quality – Policy 40:</b> New development shall be consistent with requirements imposed by the South Coast Air Quality Management District and the California Air Resources Board.	<b>All Build Alternatives: Consistent.</b> The proposed project would improve pedestrian and bicyclist accessibility in conjunction with the recently opened Expo light rail line; therefore, it has the potential to reduce the number of vehicular trips to Santa Monica Pier. A decrease in the number of vehicular trips would reduce the level of emissions. Therefore, the proposed project would meet the requirements imposed by the South Coast Air Quality Management District and the California Air Resources Board.
N/A	<b>Scenic and Visual Resources – Policy 46:</b> The scenic and visual qualities of the Coastal Zone shall be considered and protected as an important public resource. Public views to, from, and along the ocean, the pier, Inspiration Point, and Palisades Park shall be protected. Permitted development, including public works of art, shall be sited and designed to: <ul style="list-style-type: none"> <li>• protect views to and along the ocean and scenic coastal areas,</li> <li>• minimize the alteration of natural landforms, and</li> <li>• be visually compatible with the character of surrounding areas and restore and enhance visual quality in visually degraded areas.</li> </ul>	<b>All Build Alternatives: Consistent.</b> The proposed replacement bridge would not interfere with existing views in the Coastal Zone. The size, scale, and character of the replacement structure would be very close to that of the existing bridge.

Note: The policy boxes marked N/A either have no corresponding policies or the corresponding policies were not applicable to the proposed project. The goal boxes marked N/A are a result of some elements containing only policies and no goals.

### **2.1.2.2 Environmental Consequences**

#### **No-Build Alternative**

Implementation of the No-Build Alternative would not result in replacement of the existing Pier Bridge. This alternative would be inconsistent with regional and local plan policies because it would result in continued use of a bridge that is not seismically sound and would not provide enhanced access with respect to Americans with Disabilities Act (ADA) compliance. This alternative would also be inconsistent with 2020 RTP/SCS Goals 2, 3, and 4 because it would fail to maximize mobility and accessibility for all people and goods in the region, ensure travel safety and reliability for all people and goods in the region, and preserve and ensure a sustainable regional transportation system. The No-Build Alternative could result in indirect impacts on air quality, mobility, and safety within Santa Monica.

#### **Build Alternatives 1 & 2 (LPA)**

##### ***Construction***

The proposed project would replace the structurally deficient Pier Bridge with a safer multi-modal bridge that would enhance access with respect to ADA compliance. Bridge replacement would also include improvements at the west and east bridge approaches and on the pier.

Construction is anticipated to last 24 months. Under all build alternatives, a portion of land adjacent to Palisades Park, at the southern edge of the park, would be used temporarily for construction staging. After the completion of construction, the affected area would be returned to its original use. Potential use of street and surface parking areas for equipment staging would be temporary. Access to Santa Monica Pier would remain open throughout construction with use of temporary vehicular and pedestrian bridges and/or ramps.

Construction activities would adhere to the noise guidelines set forth in Article 4, Chapter 4.12, Noise, of the Santa Monica Municipal Code. The municipal code requires construction to occur between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday. However, extending construction hours beyond this period may be considered when it is in the public interest or for safety purposes. The potential for impacts due to extended construction hours is analyzed under each pertinent section, such as visual, noise, etc. Per City guidelines, no construction shall occur on a Sunday or on any of the following legal holidays: New Year's Day, Martin Luther King's birthday, President's Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, or Christmas Day. In addition, state and federal holidays may also be observed, including Cesar E. Chavez Day and Columbus Day.

Construction of the proposed project would not physically divide an established community because the proposed project would replace an existing bridge within the same alignment. In addition, although temporary construction staging would occur adjacent to a small segment of Palisades Park, there would be no permanent land use designation changes for the park or any other areas as a result of the proposed project. Per analysis contained within Table 2.1-2, the proposed project would not conflict with City General Plan goals, policies, or guidelines or any applicable habitat conservation plan or natural community conservation plan. Therefore, there would be no adverse effects under the National Environmental Policy Act (NEPA) and less-than-significant impacts under the California Environmental Quality Act (CEQA) related to land use during construction.

## **Operation**

The proposed project would replace the existing Pier Bridge with a safer bridge that would meet current seismic standards. The replacement bridge would be built within the same alignment as the existing bridge.

The proposed replacement bridge would continue to provide connectivity between Santa Monica Pier and the intersection of Colorado Avenue and Ocean Avenue. In addition, the build alternatives would be consistent with state, regional, and local plans and programs. Per analysis contained within Tables 2.1-2 and 2.1-3, operation of the proposed project would not introduce any new land use changes. In addition, the proposed project would not conflict with City of Santa Monica General Plan goals, policies, or guidelines or any applicable habitat conservation plan or natural community conservation plan. Operation of the proposed project would not result in the division of an established community. Therefore, operation of the proposed project would not result in adverse effects under NEPA or significant impacts under CEQA related to land use.

### **2.1.2.3 Avoidance, Minimization, and/or Mitigation Measures**

Effects under NEPA would not be adverse and impacts under CEQA would be less than significant because construction activities would adhere to the noise guidelines set forth in Article 4, Chapter 4.12, Noise, of the Santa Monica Municipal Code. The municipal code requires construction to occur between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday and between 9:00 a.m. and 5:00 p.m. on Saturday. Extended construction hours may be considered when it is in the public interest or for safety purposes. No mitigation measures are required.

## **2.1.3 Coastal Zone**

### **2.1.3.1 Regulatory Setting**

This project has the potential to affect resources that are protected by the Coastal Zone Management Act of 1972 (CZMA). The CZMA is the primary federal law for preserving and protecting coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a Coastal Zone Management Plan and enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those of the CZMA. They include protection and expansion related to recreation and public access to the coast; the protection, enhancement, and restoration of environmentally sensitive coastal areas; the protection of agricultural lands in the Coastal Zone; the protection of scenic coastal beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act.

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own LCPs. LCPs determine short- and long-term uses for coastal resources in their jurisdiction, consistent with California Coastal Act goals. A federal consistency determination may be needed as well.

The City does not have a certified LCP. In 1992, the City Council approved a LUP for its portion of the Coastal Zone, but the proposed LUP received only partial certification from the California Coastal Commission, excluding some subdistricts (1992 Partially Certified LUP). On July 18, 2018, the City's Planning Commission recommended to adopt a Land Use Plan; the City Council adopted the new plan on October 9, 2018. The Land Use Plan was submitted to the California Coastal Commission for certification at the end of November 2018; the City is awaiting California Coastal Commission review and recommendation. Without a fully certified LCP, coastal review authority remains under the California Coastal Commission's jurisdiction. Therefore, at this time, all development projects as well as city plans and plan amendments for projects within the City's Coastal Zone require dual permitting processes. First, all approvals must be obtained from the City of Santa Monica. Following this, and prior to building permit issuance, application must be made to the California Coastal Commission for a coastal development permit.

### **2.1.3.2 Affected Environment**

The proposed project is within the Santa Monica Coastal Zone (see Figure 2.1-2). Despite its relatively small size, the Santa Monica Coastal Zone, particularly Santa Monica State Beach, serves an important role in providing coastal recreational opportunities for the Los Angeles metropolitan area.

The City of Santa Monica submitted an LCP in 2018 for approval by the California Coastal Commission. Until that occurs, the primary document that guides current and future development within the Coastal Zone in Santa Monica is the City's Land Use Plan for the Coastal Zone (LUPCZ). Policies in the LUPCZ are directed toward preserving and enhancing public views associated with coastal resources as well as improving the visual quality of the inland urbanized area of the Coastal Zone.

According to the LUPCZ, the Santa Monica Coastal Zone covers 1.5 square miles. It is bounded on the west by the Pacific Ocean and on the east by Lincoln Boulevard south of Pico Boulevard and Fourth Street north of Pico Boulevard (as far north as San Vicente Boulevard). Here, the border goes inland along the San Vicente Boulevard centerline for approximately 2,400 feet, then continues to the northern city border

The Coastal Zone is divided into eight subareas. The proposed project would have the potential to affect the following subareas:

- Subarea 1: Santa Monica State Beach
- Subarea 2: Santa Monica Pier
- Subarea 3: Ocean Avenue and Palisades Park

### **Santa Monica State Beach**

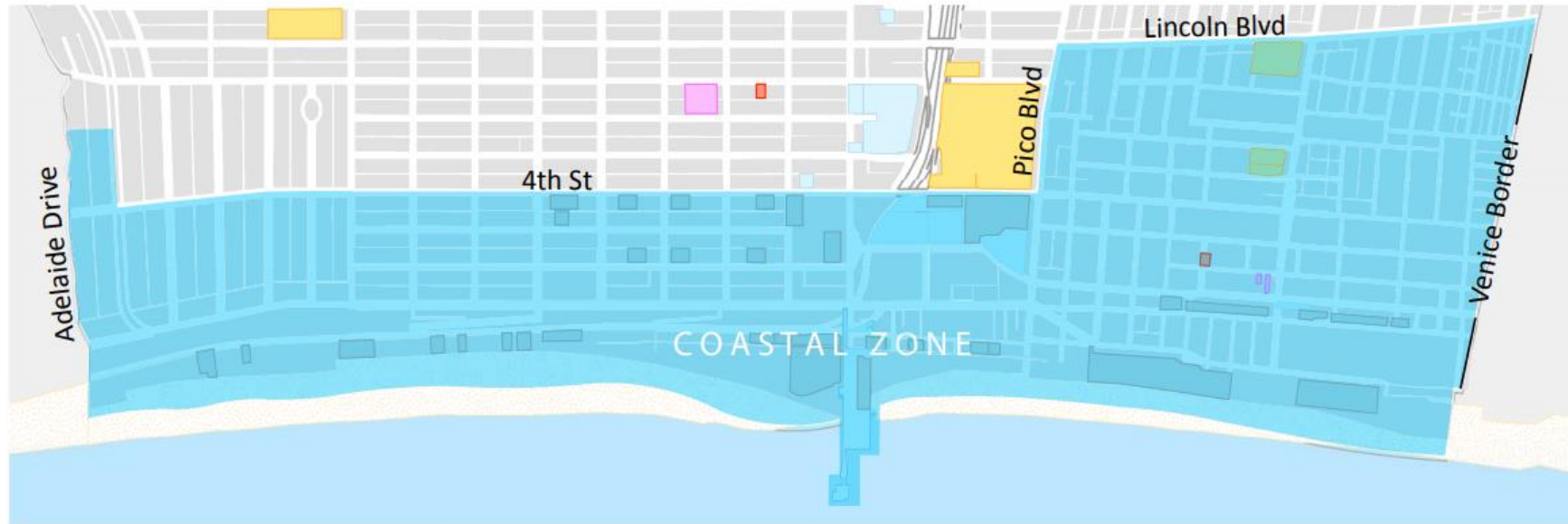
Although the Los Angeles County General Plan does not identify any significant coastal resource areas within the Santa Monica Coastal Zone (see Figure 2.1-2), Santa Monica State Beach is an important coastal resource for the city because it provides coastal recreational opportunities for the Los Angeles metropolitan region. In any given year, more than 20 million people from metropolitan Los Angeles visit this beach.

### **2.1.3.3 Environmental Consequences**

#### **Construction**

Construction of the proposed project would occur over a 24-month period. Because construction would occur in a highly developed portion of the Coastal Zone, significant impacts on biological resources occurring on the coast would not be expected. Construction staging space for the contractor's use is proposed at Lot 1 North and adjacent to a segment of Palisades Park. Construction staging would not substantially degrade the existing visual character or quality of the site because the impact would be temporary, and construction vehicles would not substantially impede views of the coast.

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Source: City of Santa Monica 2018.

**Figure 2.1-2. Santa Monica Coastal Zone**



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Access to the pier would be maintained during construction with use of a temporary pedestrian bridge; coastal access would be maintained at all times during construction. In addition, per analysis contained within Table 2.1-2, the proposed project would be in accordance with all relevant policies of elements contained in the Santa Monica General Plan. Therefore, there would be no adverse effects under NEPA or significant impacts under CEQA on the Coastal Zone during construction.

## **Operation**

The proposed project would replace an existing bridge in a highly developed portion of the Coastal Zone where sensitive biological resources have not been identified (Coastal Act Section 30230). Therefore, impacts on coastal biological resources would not be adverse or significant. Please see the *Biological Environment* section, for the full analysis of the potential project impacts on biological resources. In addition, as described in Table 2.1-2, operation of the proposed project would be consistent with all applicable policies of the Santa Monica General Plan.

For all build alternatives, the replacement bridge would be built within the same alignment as the existing bridge. Consistent with Coastal Act Section 30251, the replacement bridge would not affect views along the coast and would not change the visual quality of the surrounding area. Please see Section 2.6 of this recirculated environmental impact report/environmental assessment (EIR/EA) for further details regarding the project's impact on visual resources.

Consistent with Coastal Act Sections 30211 and 30252, the proposed project would improve pedestrian and vehicular accessibility to the coast and Santa Monica Pier by creating a bridge that would be structurally sound and seismically resistant, thereby ensuring adequate and safe access to the pier for all users, including pedestrians, bicyclists, motorists, and delivery and emergency vehicles. Therefore, the proposed project would not impair access to the coast but, rather, improve it.

### **2.1.3.4 Avoidance, Minimization, and/or Mitigation Measures**

Effects under NEPA would not be adverse, and impacts under CEQA would be less than significant. Therefore, no mitigation measures are required.

## **2.1.4 Parks and Recreational Facilities**

### **2.1.4.1 Regulatory Setting**

#### **Section 4(f) of the Department of Transportation Act of 1966**

Section 4(f) of the Department of Transportation Act of 1966, codified in federal law at 49 United States Code 303, declares that “it is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites.” Section 4(f) specifies that “the Secretary [of Transportation] may approve a transportation program or project...requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance (as determined by the federal, state, or local officials having jurisdiction over the park, area, refuge, or site), only if:

- There is no prudent and feasible alternative to using that land, and
- The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.”

Section 4(f) further requires consultation with the Department of the Interior and, as appropriate, the involved offices of the Department of Agriculture and the Department of Housing and Urban Development in developing transportation projects and programs that use Section 4(f)-protected lands. If historic sites are involved, then coordination with the State Historic Preservation Officer is also needed.

## Park Preservation Act

This project would affect facilities that are protected by the Park Preservation Act (Public Resources Code Sections 5400–5409). The Park Preservation Act prohibits local and state agencies from acquiring any property that is in use as a public park at the time of acquisition, unless the acquiring agency pays adequate compensation or provides land, or both, to enable the operator of the park to replace the park’s land and any park facilities on that land.

### 2.1.4.2 Affected Environment

Table 2.1-3 lists parks and recreational facilities within approximately 0.5 mile of the project vicinity, including equestrian trails, recreational bikeways, and other recreational trails. Figure 2.1-3 shows parks that have been designated by the City of Santa Monica, including those listed in Table 2.1-3.

**Table 2.1-3. Parks and Recreational Facilities within 0.5 mile of the Project Limits**

Name	Address	Distance from Project Site	Type
Palisades Park	1450 Ocean Avenue	Adjacent	Park
Santa Monica Pier	200 Santa Monica Pier	Adjacent	Recreational facility
Carousel Park	1624 Ocean Front Walk	Adjacent	Recreational facility
Santa Monica State Beach	Palisades Beach Road	Adjacent	Park and recreational facility
Ocean Front Walk	Eastern edge of the beach	Adjacent	Recreational facility
Marvin Braude Bike Trail	Along the beach	Adjacent	Recreational facility
Tongva Park	1615 Ocean Avenue	Adjacent	Park
Chess Park	Oceanfront Walk and Seaside Terrace	0.05 mile	Park
Ken Genser Square	1658 Main Street	0.20 mile	Park
Crescent Bay Park	2000 Ocean Avenue	0.44 mile	Park

There are parks and recreational facilities within the project vicinity that are protected by Section 4(f) of the Department of Transportation Act of 1966. This project will result in a “use” of those facilities as defined by Section 4(f). Please see Appendix A, Section 4(f), for additional details.



Source: County of Los Angeles 2015.

Figure 2.1-3. Map of Parks and Recreational Facilities within 0.5 mile of the Project Limits

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### 2.1.4.3 Environmental Consequences

The proposed project would affect Santa Monica Pier, the pier sign, Palisades Park, and Ocean Front Walk. Descriptions of the impacts are detailed below.

#### Santa Monica Pier and Pier Sign

##### **No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. No construction activities would take place; the Pier Bridge would remain open to pedestrian and vehicular traffic. However, without replacement of the Pier Bridge, its structural integrity would continue to deteriorate, and the bridge may collapse at some undetermined point in the future.

##### **Build Alternatives 1 & 2 (LPA)**

##### **Construction**

All build alternatives would require structural modifications to the pier. To facilitate demolition of the bridge, portions of Santa Monica Pier would be removed. These modifications would be minor and would not affect the primary recreational activities, features, or attributes of the pier.

Construction of the build alternatives would require modification of the supports for the historic pier sign to raise its height to provide 17'-0" minimum vertical clearance, as discussed in Chapter 1 of this Recirculated Draft EIR/EA. However, the sign itself would not be modified, other than to repair it, in kind, for further use and preservation. Although the support structures would be modified to accommodate the additional vertical clearance, they would be in keeping with the historic character of the pier sign. The build alternatives would result in use of Santa Monica Pier during construction and a minimal impact on a Section 4(f) resource that is not considered to be adverse. Impacts as a result of project construction will not adversely affect the activities, features, and attributes that give a property protection under Section 4(f). Impacts on the pier sign would be less than significant with the incorporation of mitigation measure LU-1, described below. For additional information on Section 4(f) impacts, please see Appendix A to this recirculated EIR/EA.

Although these temporary effects would be necessary to construct portions of the replacement bridge, they would be minor and short in duration. Furthermore, pedestrian, bicycle, and automobile traffic would be redirected around construction activities. The primary activities, features, and attributes of the pier, including strolling, fishing, and enjoying low-cost entertainment at the Looff Hippodrome and Pacific Park, would not be affected, and all areas would remain accessible during construction. Upon completion of construction, the potential proximity impacts would not substantially impair the activities, features, or attributes of the pier; in fact, the proposed project would improve access to the pier.

Construction of the proposed alternatives would require temporary closures, resulting in detours, to the Marvin Braude Bike Trail. With the implementation of the provided detour, overall impacts will be minor and temporary in nature. With the implementation of detours and no direct impacts to the trail, the project will not have any temporary or permanent adverse impacts to the Marvin Braude Bike Trail.

Bridge demolition, construction, and installation of a temporary pedestrian bridge would occur within the northernmost portion of the Carousel Park's parcel boundary. Impacts would occur to the exterior walls of the aquarium and the easterly extension of the Pier deck, however, these have been determined to not be character defining features of the Park. Demolition and reconstruction of the bridge would result in a temporarily affect approximately 1,400 square feet of aquarium space. This may require reconstruction of some walls and the roof of the aquarium, located within Park boundary. Additionally, the removal of pier decking and potentially the piles below is expected within approximately five feet of where the bridge engages the Pier in order to accommodate a drilling rig and associated machinery. These construction activities would have the potential to physically damage the Pier structure through unanticipated falling debris or collision with construction equipment. However, mitigation measures CR-3 and CR-5, described in detail in Section 2.7.2.3 of this Recirculated Draft EIR/EA, would be incorporated to minimize and avoid any impacts associated with construction to the aquarium and Pier. As a result, no significant impacts to the Park are anticipated.

The distance between where piles for the construction of Alternatives 1 and 2 (LPA) would be drilled is a sufficient distance to limit vibration effects to the overall Park area enjoyed by the public. Therefore, vibrations from heavy machinery, excavation, and pile driving are not anticipated to reach a level that could result in damage or other substantial adverse impacts to the Park. Construction activities would result in visual disruptions to the general setting, specifically the portion of the Park adjacent to the under both alternatives. However, construction would be temporary and the extent of the visual nuisance from the construction equipment and vehicles would be limited to the areas adjacent to the north side of the Pier. As a result, no impacts to the visual character of the Park are anticipated. The temporary pedestrian bridge structure would be fixed to the pier deck within the general vicinity of the aquarium's arcade walls and public seating area on the deck above. This structure would be temporary and designed to be reversible. It would be modest in size and would replicate the slope of the existing bridge. Therefore, the temporary pedestrian bridge is not expected to have adverse impacts on the Park.

The proposed project is located within the proximity of the Santa Monica State Beach, Tongva Park, Chess Park, Ken Genser Square, and Crescent Bay Park. The project will not impede the access to these recreational facilities, nor will it cause temporary and or permanent impacts as a result of construction. Therefore, the project will not have any impacts to these facilities under CEQA or NEPA.

The proposed project would replace the existing Pier Bridge. Construction of the proposed project would not increase the demand for use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. In addition, the project would not include development of new recreational facilities or require the expansion of existing recreational facilities, which could have an adverse physical effect on the environment. Therefore, the proposed build alternatives would not result in an adverse effect under NEPA; the impact under CEQA would be less than significant.

## **Operation**

The proposed project would improve pedestrian and vehicular accessibility to Santa Monica Pier, which could result in an increase in use. However, the number of available parking spots for Santa Monica Pier would not increase, and the capacity of the pier would not increase. Therefore, the proposed project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. In addition, the project would not include development of new recreational facilities or require the expansion of existing recreational facilities, which could have an adverse physical effect on the environment. Therefore, operation of the project would have no adverse effect under NEPA and no significant impact under CEQA related to recreational uses.

### **Palisades Park**

#### ***No-Build Alternative***

The No-Build Alternative would not result in replacement of the Pier Bridge. No construction activities would take place, and the Pier Bridge would remain open to pedestrian and vehicular traffic. Therefore, there would be no impact on Palisades Park.

#### ***Build Alternatives 1 & 2 (LPA)***

## **Construction**

A small portion of property adjacent to the park (approximately 0.1 acre) near the Pier Bridge would be used for construction staging and equipment access, as outlined in red in Figure 2.1-4. Temporary fencing or other screening would be installed as part of this work. The occupied area adjacent to the park would not be accessible during this time. This area, adjacent to the Pier Bridge, consists mostly of sidewalk areas and vegetation; it does not include the grassy areas and paths that are present throughout most of the adjacent park. Temporary staging adjacent to the park would span the majority of the construction period, allowing construction equipment to access the bridge deck.

The staging adjacent to the park would be temporary and would not be required over the entire construction period. No change in ownership would be required, and no physical changes to the park would occur as part of this construction staging, which would be primarily for construction equipment access. The only construction activity taking place adjacent to the park would involve the movement of construction equipment. Although some vegetation would have to be removed to accommodate construction materials and equipment, any vegetation removed during construction would be replanted once construction is finished. The park would be unaffected by construction and accessible for public use throughout the construction period.



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Source: TYLIN 2020

Figure 2.1-4. Existing Conditions and Proposed Temporary Disturbance Limits in Palisades Park

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**Operation**

None of the build alternatives propose any changes, directly or indirectly, that would adversely affect long-term operation of Palisades Park. All impacts would occur during the construction phase.

Ocean Front Walk

**No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. No construction activities would take place, and the Pier Bridge would remain open to pedestrian and vehicular traffic. Therefore, there would be no impact on Ocean Front Walk.

**Build Alternatives 1 & 2 (LPA)****Construction**

No land from Ocean Front Walk would be incorporated into the project. Although some temporary closures would be required to construct portions of the replacement bridge, those temporary impacts would be limited and short in duration. Pedestrians would be safely redirected around construction activities. Therefore, there would be no adverse effects under NEPA and less-than-significant impacts under CEQA.

**Operation**

None of the build alternatives propose any changes, directly or indirectly, that would adversely affect long-term operation of Ocean Front Walk. All impacts would occur during the construction phase.

**2.1.4.4 Avoidance, Minimization, and/or Mitigation Measures**

The proposed project would have no adverse effects under NEPA and less-than-significant impacts under CEQA on park and recreational facilities or Section 4(f) resources with incorporation of the mitigation measure below.

**LU-1:** The historic pier sign itself shall be maintained and preserved in kind. Repairs shall be performed, as needed, to preserve the sign's longevity and historic aesthetic. New support structures, to accommodate increased vertical clearance, shall be constructed and designed to match the existing historic context and aesthetic of the bridge. All designs for the support structures shall be approved by a certified architectural historian.

**2.1.5 Cumulative Impacts**

An analysis of the proposed project's consistency with applicable plans will be used to evaluate the cumulative impacts regarding land use.

### 2.1.5.1 Affected Environment

**Resource Study Area:** The geographic resource study area (RSA) boundary for land use is defined as any land within 0.5 mile of the project vicinity. This study area is appropriate because any impacts associated with the proposed project would be expected to occur in proximity to the project vicinity.

**Existing Conditions within RSA:** Existing land uses surrounding the project site include public parking, a public beach, public parks, and single- and multi-family residential housing units. Restaurants are located to the north; Palisades Park to the northeast; multi-family residential housing, restaurants, retail outlets, and parking to the east and south; and the Pacific Ocean to the west.

### 2.1.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within RSA:** Construction of the proposed project would result in replacement of the structurally deficient Pier Bridge. The new bridge would not physically divide an established community. The proposed project would improve the existing access link between Santa Monica Pier and the downtown/civic center neighborhoods of the city. In addition, the proposed project would be consistent with the City of Santa Monica General Plan and the SCAG RTP/SCS. The project would not be a catalyst for the conversion of existing land uses or the introduction of new land uses to the RSA. Therefore, the project would not cause direct or indirect impacts on land use or contribute to a cumulative impact on land use; therefore, it need not be further evaluated.

### 2.1.5.3 Avoidance, Minimization, and/or Mitigation Measures

The project would be consistent with local land use planning and would have no significant impacts on land use. No adverse impacts are anticipated to occur under any of the build alternatives, and the proposed project would not contribute toward a cumulative impact on land use. Therefore, no mitigation measures are required.

## 2.2 Growth

### 2.2.1 Regulatory Setting

The Council on Environmental Quality (CEQ) regulations, which established the steps necessary to comply with the National Environmental Policy Act (NEPA) of 1969, require evaluation of the potential environmental effects of all proposed federal activities and programs. This provision includes a requirement to examine indirect effects, which may occur in areas beyond the immediate influence of a proposed action and at some time in the future. The CEQ regulations (40 Code of Federal Regulations [CFR] 1508.8) refer to these consequences as *indirect impacts*. Indirect impacts may include changes in land use, economic vitality, and population density, which are all elements of growth.

The California Environmental Quality Act (CEQA) requires analysis of a project's potential to induce growth. The CEQA Guidelines (Section 15126.2[d]) require that environmental documents "...discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment..."

#### 2.2.1.1 Affected Environment

The study area for the impacts discussion related to growth is defined by land that falls within a 0.5-mile radius of the project site. The study area comprises the oceanfront district of the City, a mixed use area that contains visitor-serving commercial, residential, and community uses. This area is a popular local and regional destination due to its proximity to the ocean as well as the Downtown and Civic Center areas. If growth impacts were to result from the proposed project, they would most likely occur within the Oceanfront District, Downtown, and Civic Center areas.

Desktop research was conducted in August 2020 to confirm that the information presented below has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

#### 2.2.1.2 Existing and Planned Growth

Santa Monica has experienced both growth and declines in its population over the past five decades. It is anticipated that the city will grow at a faster pace through 2040 (Southern California Association of Governments 2016). Because the study area is within the city of Santa Monica, growth projections for the city are strong growth indicators for the study area.

The Southern California Association of Governments (SCAG) is the federally designated Metropolitan Planning Organization (MPO) for the Southern California region, which covers six counties, Los Angeles, Orange, Riverside, San Bernardino, Imperial, and Ventura. Santa Monica is located in Los Angeles County, within the Westside Cities Subregion, which includes the cities of Beverly Hills, Culver City, Santa Monica, West Hollywood, and a limited range of adjacent unincorporated areas. As part of its long-range planning, SCAG develops county, city, and MPO-level socioeconomic estimates and growth projections, including

population, household, and employment projections, for each jurisdiction in the SCAG region using enhanced forecasting methods and interactive public outreach. These estimates and projections provide the analytical foundations for SCAG's transportation planning and other programs at the regional level. On September 3, 2020, SCAG adopted Connect SoCal, its 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), which includes SCAG's most recent regional Integrated Growth Forecast. The Integrated Growth Forecast represents the most likely future growth scenario for the Southern California region, with projections for 2045.

As seen in Table 2.2-1, growth projections adopted by SCAG (2020) indicate increases in population, housing, and employment through 2045. In 2016, Santa Monica's estimated population was 93,600; that number is expected to grow to 114,700 by 2045. The estimated number of households in Santa Monica in 2016 was 48,100; that number is expected to grow to 51,400 by 2045. SCAG's projections are based on the growth projections within the Land Use and Circulation Element of the City of Santa Monica (City) General Plan and, therefore, are consistent with City forecasts.

**Table 2.2-1. Baseline and Projected Population, Household, and Employment Numbers (2012–2040)**

	Population		Households		Employment	
	2016	2045	2016	2045	2016	2045
City of Santa Monica	93,600	114,700	48,100	51,400	4,743,000	5,382,000

Source: Southern California Association of Governments 2020.

Growth in Los Angeles County has been steady over the past five decades and is anticipated to continue through 2045. Growth projections adopted by SCAG indicate increases in population and housing in the county. In 2018, the county's estimated population was 10,283,729; that number is expected to grow to 11,674,000 by 2045. The estimated number of households in the county in 2018 was 3,338,658; that number is expected to grow to 4,119,600 by 2045. The estimated number of employed individuals in the county in 2016 was 4,743,000; that number is expected to grow to 5,382,000 by 2045.

## **2.2.2 Environmental Consequences**

### **2.2.2.1 No-Build Alternative**

The No-Build Alternative would not result in replacement of the Santa Monica Pier Bridge (Pier Bridge). Therefore, construction activities are not expected to take place; the Pier Bridge would remain open to pedestrian and vehicular traffic. No growth would be expected.



### 2.2.2.2 Build Alternatives 1 and 2 (LPA)

#### Construction

Construction activities associated with both build alternatives would be temporary, occurring at the existing Pier Bridge or in the immediate vicinity. Public access to the pier would be maintained during construction; therefore, the number of pier visitors and demand for pier businesses are not expected to change materially. During construction, temporary employment opportunities would increase for construction workers. Population growth would occur only if project construction workers were to move to the area permanently. However, this is unlikely, given the large pool of available construction workers in Southern California who typically commute daily to construction sites on a project-by-project basis. Existing businesses in the area, such as restaurants, would be able to meet the demand for services generated by construction workers. Therefore, substantial population growth or local business growth would not occur during construction of either build alternative.

#### Operation

Because different transportation projects influence growth in different ways, joint guidance from the Federal Highway Administration and U.S. Environmental Protection Agency recommends a two-phase approach for the evaluation of growth-related impacts. The first phase is called the “first-cut” screening, which is designed to determine the likely growth-potential effect and whether further analysis is necessary. The first-cut screening analysis for both build alternatives is presented below.

The first-cut screening process entails asking the following questions to determine the proposed project’s potential to induce growth:

- How, if at all, does the project potentially change accessibility?
- How, if at all, do project type, project location, and growth pressure potentially influence growth?
- If there is project-related growth, how, if at all, will that affect resources of concern?

This process also determines whether project-related growth is reasonably foreseeable, as defined by NEPA.

A project may be growth inducing if it directly proposes the construction of additional housing or if it indirectly fosters economic or population growth by removing obstacles to population growth.

The proposed project would replace an existing transportation facility with a similar transportation facility; it would not construct new housing or include new land uses that could lead to growth. In addition, the project would not directly or indirectly remove obstacles that could induce new growth.

Both build alternatives would improve vehicular and pedestrian access to Santa Monica Pier. Increased accessibility may increase visitor use of Santa Monica Pier, which may generate an incremental increase in economic activity at the commercial establishments on the pier itself. Improvements to the pier may also make the area more attractive; however, the project would not provide access to an area that was previously inaccessible. Furthermore, the total number



of available parking spaces on the pier deck would not increase; therefore, capacity levels in the study area would not increase. For these reasons, the proposed project would not induce substantial population growth in the study area. In addition, the proposed project is not expected to change travel times, travel costs, or accessibility to employment, shopping, or other destinations substantially.

Because the project would consist only of replacing existing infrastructure, it would not directly or indirectly induce growth. These Pier Bridge improvements would serve existing and forecast city growth, including visitors. They are not anticipated to spur development in remote areas or remove a major physical limitation or obstacle to growth. The proposed improvements to the Pier Bridge are not anticipated to spur new development across the city. Therefore, project-related growth is not reasonably foreseeable.

### **2.2.3 Avoidance, Minimization, and/or Mitigation Measures**

No adverse impacts under NEPA or significant impacts under CEQA are anticipated to occur. Therefore, no mitigation measures are required.

### **2.2.4 Cumulative Impacts**

#### **2.2.4.1 Affected Environment**

**Resource Study Area:** The geographic resource study area (RSA) boundary for growth is defined as the extent of regional plans, such as the Regional Transportation Improvement Program (RTIP) and the RTP. SCAG is the MPO in the region for the counties of Los Angeles, Orange, San Bernardino, Riverside, Ventura, and Imperial and responsible for forecasting population trends and growth scenarios.

**Existing Conditions within RSA:** The SCAG region is the second-most populous metropolitan region in the nation. The 2020 RTP/SCS reported that the 2019 population of the SCAG region was 19,155,405. In addition, 5.8 percent of the nation's population lives in the SCAG region; the region accounts for 48.0 percent of California's population. While growth rates are at a historic low; a gradual increase to the total population is expected. In the SCAG region, a 0.6 annual growth rate corresponds to about 114,000 new residents annually, or 3.2 million new residents between 2019 and 2045.

#### **2.2.4.2 Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** Public access to the pier would be maintained during construction; therefore, the number of pier visitors and the demand for pier businesses are not expected to increase substantially (i.e., to the extent that it would induce substantive growth) compared with existing conditions. The new bridge would improve accessibility for pedestrians and vehicles, which may generate an incremental increase in economic activity at the commercial establishments on the pier itself. However, the proposed project would not provide access to an area that was previously inaccessible. Furthermore, the total number of available parking spaces on the pier deck would not increase; therefore, capacity levels in the study area would not increase. For these reasons, the new bridge would not directly or indirectly induce growth.

**Current and Reasonably Foreseeable Projects within RSA:** In the current RTP and RTIP, many roadway infrastructure improvement projects are proposed for the region. The regional plans have analyzed the cumulative impacts of the projects and identified feasible avoidance, minimization, and mitigation measures. SCAG has forecast foreseeable growth in the region until 2040 and analyzed impacts related to population increases.

**Cumulative Impact Potential:** The potential for impacts related to growth inducement resulting from the proposed project is low because the project would improve accessibility for pedestrians and vehicles but would not increase capacity levels within the study area. Even though several development projects are listed in Table 2.1.1-1, these are infill projects that would be constructed in an already built-up urban area. This would not result in a substantial shift in population growth or distribution or make areas accessible that were previously inaccessible. The proposed project does not include the construction of habitable structures. It would not have direct or indirect impacts on growth because it would replace an existing transportation structure. As such, the project would not contribute to adverse cumulative growth impacts in the region.

#### **2.2.4.3 Avoidance, Minimization, and/or Mitigation Measures**

The project would not contribute to a cumulatively considerable impact. No adverse impacts are anticipated to occur under either build alternative, and no project-level impact on growth would occur. Therefore, no mitigation measures are required.

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## **2.3 Community Impacts**

### **2.3.1 Community Character and Cohesion**

#### **2.3.1.1 Regulatory Setting**

The National Environmental Policy Act (NEPA) of 1969, as amended, established that the federal government use all practicable means to ensure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). The Federal Highway Administration (FHWA) in its implementation of NEPA (23 USC 109[h]) directs that final decisions on 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.

Under the California Environmental Quality Act (CEQA), an economic or social change by itself is not to be considered a significant effect on the environment. However, if a social or economic change is related to a physical change, or if it physically divides a community, then social or economic change may be considered in determining whether the physical change is significant. Because this project would result in physical change to the environment, it is appropriate to consider changes to community character, cohesion and land use compatibility when assessing the significance of the project's effects.

#### **2.3.1.2 Affected Environment**

The Santa Monica Pier Bridge (Pier Bridge), constructed in 1939, is approximately 490 feet long, extending west from the intersection of Ocean Avenue and Colorado Avenue to Santa Monica Pier in the city of Santa Monica. The predominant uses in the vicinity of the Pier Bridge include open space/recreational, visitor-serving commercial, and residential uses. The Pier Bridge connects the intersection of Ocean Avenue and Colorado Avenue to the pier, which stretches about 1,000 feet (305 meters) into Santa Monica Bay. The site is adjacent to Palisades Park, which is north of the site. Santa Monica Pier is composed of what were previously two adjacent piers, Newcomb Pier and Municipal Pier. Pacific Park, an amusement park that has been in operation since 1996, is also located on the pier. It contains rides, such as the distinctive Ferris wheel and roller coaster, as well as game booths. The pier has many different elements, including the carousel at the Looff Hippodrome, the Billiards Building, rides, and other visitor-serving facilities.

The Pier Bridge is not a central feature within any one neighborhood but, rather, an important transportation link for the city because it connects the Downtown and Civic Center districts to Santa Monica Pier as well as the beach and beach-side amenities. The level of cohesion between the land uses located in the Oceanfront District and the land uses east of Ocean Avenue in the downtown and Civic Center districts is low because the two areas are separated by natural features (bluffs) and busy thoroughfares, such as Ocean Avenue and State Route 1.

Land uses surrounding the project site include public parking, a public beach, single- and multifamily residential housing, and restaurant uses to the north; Palisades Park to the northeast; multifamily residential, restaurant, retail, and parking uses to the east and south; and the Pacific

Ocean to the west. Retail uses south and east of the pier are characterized by the various beach-oriented visitor-serving businesses, such as bicycle and roller-skate rental and food outlets. Uses south and east of the pier include hotels, retail outlets, and single- and multifamily residences. The Santa Monica Place shopping center, along with associated public parking, is northeast of the pier, across Ocean Avenue. Ocean Avenue, both north and south of the pier, is lined with restaurants, hotels and motels, office space, and various retail outlets. Institutional and public uses within walking distance of the pier include Santa Monica City Hall, Tongva Park, and the Rand Corporation, both of which are located east of the pier.

The Pier Bridge serves as an important transportation facility, allowing motorists, bicyclists and pedestrians to travel between the beach and the downtown. It is used extensively by city residents as well as visitors and tourists from neighboring cities, the region, the state, the nation, and around the world. The city is a well-known destination for beach visitors, and the Pier Bridge is an important part of the city's transportation infrastructure, providing access to various valuable resources within the city.

Desktop research was conducted in August 2020 to confirm that the information presented above has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

### **2.3.1.3 Environmental Consequences**

#### **No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. Therefore, there would be no change in existing community character and cohesion. However, it should be noted that without replacement of the bridge, further deterioration, including collapse, could occur, resulting in the loss of an existing connection between the Coastal Zone and the Downtown District of the city.

#### **Build Alternatives 1 and 2 (LPA)**

##### ***Construction***

During construction of Build Alternatives 1 and 2 (LPA), the Pier Bridge would be temporarily closed for bridge demolition, foundation construction, and falsework erection; after construction, the bridge would be temporarily closed to remove falsework. To the extent possible, access to the pier would be maintained for the public, delivery vehicles, and emergency vehicles. Because of the bridge closure, bicycle and pedestrian access would be affected. Vehicular access would be provided from a temporary ramp from Lot 1 North under Build Alternatives 1 and 2 (LPA). Pedestrian access would be maintained from a number of existing routes between the pier entrance and other parts of Santa Monica, the oceanfront, and beachside areas in the immediate project vicinity.

Transportation impacts, particularly when associated with bridge construction or reconstruction, can represent the greatest effects on community character and/or cohesion. This is particularly true if construction or reconstruction were to bifurcate a neighborhood or permanently change access to residential areas. There is a residential cluster north of Lot 1 North and Palisades Park,

but this area would be mostly isolated from construction impacts. Access to the denser neighborhood to the south of the pier via Pacific Terrace, Seaside Terrace, and Palisades Beach Road would be maintained throughout the construction period. Also, a Traffic Management Plan, which would be prepared during the design phase of the project, prior to construction, would specify detour routes and other measures to manage traffic during construction so as to limit potential effects on the neighborhood. (For information regarding the detour routes that have been identified, please see Section 2.5, *Transportation*, of this EIR/EA.) Therefore, because primary construction activities would not occur in residential areas, impair access, or otherwise adversely affect the functioning of the neighborhood, they would not disrupt or divide the community. Furthermore, because alternate routes would be available and the impacts temporary, construction-period impacts on community character and cohesion would not be adverse.

### **Operation**

The existing Pier Bridge does not meet current seismic codes and remains a potential safety hazard. It is likely that the Pier Bridge will deteriorate to a point where it will be unsafe for use or vulnerable to damage during a major seismic event. Therefore, it could be subject to closure for safety reasons. However, the purpose of the proposed project under Build Alternatives 1 and 2 (LPA) is to correct those deficiencies and make the bridge safe for long-term vehicular, bicycle, and pedestrian use. Replacement of the Pier Bridge would provide a new structure that would be built to current seismic standards and be available for long-term use and access by the community.

After construction of Build Alternatives 1 and 2 (LPA), there would be no decline from existing conditions insofar as community character and cohesion are concerned. Existing relationships among land uses and activities would remain unchanged. The project area and neighboring streets, at present, are heavily trafficked by pedestrians and vehicles en route to the pier area and beach; bridge reconstruction would provide more orderly management of those activities but would not contribute to a change in volume or mix. There would be no division of established neighborhoods or increased urbanization or isolation in the vicinity of the project site because the existing structure would be replaced with a similar structure at the same location. In addition, both the build alternatives would improve access for pedestrians and bicyclists by providing a safer structure that would maintain connections from the city to pier and beach resources. These features would represent an improvement over the existing design. Therefore, the project would have a beneficial effect on long-term cohesion within the community.

#### **2.3.1.4 Avoidance, Minimization, and/or Mitigation Measures**

There would be no adverse effects under Build Alternatives 1 and 2 (LPA), and no mitigation measures are required.

### **2.3.2 Relocations and Real Property Acquisition**

#### **2.3.2.1 Regulatory Setting**

The California Department of Transportation (Caltrans) Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, and Title 49 Code of Federal Regulations (CFR) Part 24.

The purpose of the RAP is to ensure that persons who become displaced as a result of a transportation project are treated fairly, consistently, and equitably so as not to suffer disproportionate injuries as a result of projects that have been designed for the benefit of the public as a whole. Please see Appendix D for a summary of the RAP.

All relocation services and benefits are administered without regard to race, color, national origin, disability, religion, age, or sex. Please see Appendix C for a copy of Caltrans' Title VI Policy Statement.

### **2.3.2.2 Affected Environment**

The project site and surrounding area are described in detail above in Section 2.3.1. The affected environment for the relocation and real property acquisitions analysis is similar to the affected environment for the community character and cohesion analysis. The Pier Bridge connects the intersection of Ocean Avenue and Colorado Avenue to the pier. The predominant uses in the vicinity of the Pier Bridge include open space/recreational, commercial, and residential uses. Public parking, public beach, single- and multifamily residential housing, and restaurant uses are located to the north; Palisades Park to the northeast; multifamily residential, restaurant, retail, and parking uses to the east and south; and the Pacific Ocean to the west.

Desktop research was conducted in August 2020 to confirm that the information presented above has not changed since first circulation of this EIR/EA.

### **2.3.2.3 Environmental Consequences**

#### **No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. No relocations or real property acquisitions would be required. Therefore, no displacement of housing or residents would occur.

#### **Build Alternatives 1 and 2 (LPA)**

##### ***Construction and Operation***

As documented in the *Draft Relocation Impact Memorandum* (California Department of Transportation 2020), included as Appendix J to this recirculated Draft EIR/EA, a field review was conducted to determine the potential impact of Build Alternatives 1 and 2 (LPA) on residential and non-residential uses. Build Alternatives 1 and 2 (LPA) would not result in acquisitions or the displacement of residential uses. However, both build alternatives would require partial acquisition and temporary displacement of an institutional space owned by the City of Santa Monica (City), which is leased to Heal the Bay, a non-profit organization that operates an aquarium at the property.<sup>1</sup> The aquarium, which is under the pier deck, occupies an area of 4,033 square feet and includes exhibit space, meeting rooms, offices, and educational space, all of which are environmentally controlled. The aquarium also includes 500 square feet of storage space and utility life-support systems, including breeding tanks and water treatment equipment. The Pier Bridge is directly adjacent to the common walls of the aquarium offices and

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<sup>1</sup> The aquarium's lease expired in June 2018; it can continue as a month-to-month tenancy, cancellable by either party with a 30-day notice.

life-support spaces. The Pier Bridge houses related uses, including restroom facilities, a storage area, a transformer room, the pier's utility infrastructure, and the aquarium's emergency generator. The aquarium walls and the backside of the restroom facilities create an additional storage space for a water heater and furnace, which would be removed prior to construction.

Construction activities will create dust, noise, and vibrations that may affect aquarium exhibits as well as office and support spaces. Demolition and reconstruction of the bridge would require construction workers and equipment that would temporarily affect approximately 1,400 square feet of aquarium space. This may require reconstruction of some walls and the roof of the aquarium. In addition, approximately 1,200 square feet of the newly leased patio space would be affected by the project.

Relocation information is provided below in Table 2.3-1. No other relocations or displacements are anticipated as a result of Build Alternatives 1 and 2 (LPA). Therefore, no displacement of housing or residents would occur.

**Table 2.3-1. Details of Displaced Property**

Assessor's Parcel Number (APN)	Address	Business/ Organization Name	Business/ Organization Type	Anticipated Project Impact
4290-023-902	200 Santa Monica Pier, Santa Monica, CA 90401	Heal the Bay's Santa Monica Pier Aquarium	Non-profit educational aquarium	Temporary relocation of 1,400 square feet of the aquarium and 1,200 square feet of patio space during construction under Build Alternatives 1 and 2 (LPA)

Source: ICF, 2020.

The City will consult with Heal the Bay to ascertain the particulars of its operations as well as specific needs regarding a replacement property. All activities will be conducted in accordance with the Uniform Act, as amended. Relocation resources shall be available to all displaced without discrimination.

#### **2.3.2.4 Avoidance, Minimization, and/or Mitigation Measures**

The proposed partial acquisition and temporary displacement would comply with the appropriate requirements of the Uniform Act. Therefore, by complying with the Uniform Act, there would be no adverse effects under Build Alternatives 1 and 2 (LPA).

To avoid or minimize impacts on the aquarium as a result of the project, the City has initiated consultation with Heal the Bay to ascertain the particulars of their operations and specific needs regarding a replacement property. Through this ongoing consultation with the aquarium, it has been determined that temporary relocation may occur under the following conditions:

- The northernmost area of the aquarium, which is entirely office space, will be cordoned off for the duration of construction (estimated at 24 months), reducing the internal area by approximately 1,400 square feet. The remainder of the aquarium space (internal display areas and maintenance areas) will be fully operational.



- The newly leased outdoor patio area will be reduced by approximately 1,200 square feet for the duration of construction (estimated at 24 months). The remainder of the outdoor patio space will be available for the aquarium's use.
- Regarding intermittent closures of facilities, because of the aquarium's location immediately adjacent to the project area, construction activities may necessitate temporary closure of the aquarium. Examples of these activities include bridge demolition, pile drilling, falsework installation, and the installation of various bridge elements (e.g., light poles, prefabricated elements). These impacts would be coordinated with the aquarium in advance of construction and during the course of construction. The City will endeavor to limit these impacts on the aquarium and provide as much advance notice as practicable.

Per Caltrans Right-of-Way Manual Section 10.10.05.00, any person who has been temporarily relocated for a period beyond 1 year is considered permanently displaced and entitled to permanent relocation benefits. For reductions in space, the City will coordinate with the aquarium to provide in-kind replacement space in proximity to the affected leased space for the duration of construction. Although the relocations would be temporary, they would be expected to occur over the full 24-month duration of construction. The City will coordinate with the aquarium to ensure the satisfaction of all parties. The City will also coordinate with the aquarium to limit impacts on aquarium operations during construction, providing adequate notice of adjacent and impactful construction operations.

As part of mitigation measure CR-3, the City will prepare an Adjacent Structure Monitoring Plan and Shoring Plan to safeguard adjacent resources, such as the aquarium, from damage due to vibration, demolition, excavation, and general construction activities and mitigate the possibility of settlement due to the removal of soil. The plan shall be prepared by a qualified and California-licensed professional engineer who has been approved by the City of Santa Monica. The plan shall include standards that specify such items as preconstruction surveys, vibrational monitors, vibrational thresholds, and minimization measures.

### **2.3.3 Environmental Justice**

#### **2.3.3.1 Regulatory Setting**

All projects involving a federal action (funding, permit, or land) must comply with Executive Order (EO) 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, signed by President William J. 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. The definition of *low income* is based on Department of Health and Human Services poverty guidelines. For 2020, this was \$26,200 for a family of four.

All considerations under Title VI of the Civil Rights Act of 1964, and related statutes, have also been included in this project. Caltrans' commitment to upholding the mandates of Title VI is demonstrated by its Title VI Policy Statement, as signed by the director (see Appendix C).

### 2.3.3.2 Affected Environment

The project area and immediate vicinity are entirely encompassed within Census Tract 7019.02, which is considered the study area for this assessment of potential environmental justice impacts. The study area and census tract are bordered on the north by Wilshire Boulevard, on the east by Lincoln Boulevard, and on the south by Pico Boulevard. The total population of this study area was approximately 4,659 in 2019, according to available data from the U.S. Census Bureau.

Within Census Tract 7019.02, approximately 17.9 percent of the population was below the poverty threshold in 2019, slightly higher than the number for Los Angeles County, with its approximately 14.9 percent of the population below the poverty threshold. For Santa Monica, approximately 9.9 percent of the population fell below the poverty threshold that same year. (Note: The 2020 poverty threshold, as defined by the U.S. Census Bureau, was \$13,465 for an individual and \$26,695 for a family of four.)

The per capita income in the study area is more than two times that of Los Angeles County and slightly higher than that of Santa Monica. However, the median household income in the study area is slightly lower than that of the county and well below the median household income for the city (see Table 2.3-2).

**Table 2.3-2. Regional and Local Population Characteristics – Population/Income/Poverty**

Area	Total 2019 Population	Per Capita Income	Median Household Income	Population below Poverty Level	Percent of Population below Poverty Level
Census Tract 7019.02/Study Area	4,659	\$78,022	\$67,422	834	17.9%
City of Santa Monica	91,577	\$75,481	\$96,570	9,015	9.9%
Los Angeles County	10,081,570	\$34,156	\$ 68,044	1,480,446	14.9%

Source: U.S. Census Bureau, 2019.

The term “minority” includes persons who identify themselves as black, Asian/Pacific Islander, Native American, or of Hispanic origin. The term “low income” includes persons whose household income is at or below Department of Health and Human Services poverty guidelines. A different threshold (e.g., the U.S. Census Bureau poverty threshold) may be used as long as it is not selectively implemented and is inclusive of all persons who are at or below Department of Health and Human Services poverty guidelines. The U.S. Census Bureau uses the poverty threshold to determine the number of persons who are below the poverty level by census tract.

The racial makeup across the study area is comparable to that of the city. Within the study area, white persons of non-Hispanic origin are the predominant racial group, making up approximately 77.4 percent of the population, compared with 81.2 percent at the city level and 54.4 percent at the county level (see Table 2.3-3). A higher percentage of black persons of non-Hispanic origin or African Americans (14.1 percent) exists within the study area compared with the percentage in the city (5.9 percent); both percentages are higher than the county number (9.2 percent). The percentage of persons of Hispanic origin was lower in this census tract (8.4 percent) compared with the percentage in the city (15.4 percent) and the county (48.5 percent). Asians represent approximately 10.2 percent of the study area, 13.6 percent of the city, and 16.3 percent of the county. The percentages for all other races and minority groups are similar throughout the study area, city, and county, as shown below in Table 2.3-3.

### 2.3.3.3 Environmental Consequences

#### Construction and Operation

Build Alternatives 1 and 2 (LPA) would demolish the existing bridge and construct a new bridge with a similar configuration at the same location. Environmental justice considerations require an assessment of whether the effects of a project on minority and low-income populations could be considered disproportionately high and adverse. This determination depends on whether 1) the effects of the project are predominantly borne by a minority or low-income population or 2) the effects of the project are appreciably more severe or greater in magnitude on minority or low-income populations compared with the effects on non-minority or non-low-income populations.

As stated above, the study area is composed predominantly of high-income households (i.e., higher per capita incomes than city and county households), with the majority not belonging to a minority group or a particular ethnic origin (see Table 2.3-1 and Table 2.3-2). Although median household incomes were lower throughout the study area than throughout the city and county, this is very likely due to its smaller sample size. The per capita income for the study area is substantially higher than that found in the rest of the city or county. The Pier Bridge is a public use facility and does not restrict usage for any group, race, or class.

The proposed project has been developed in accordance with Title VI of the Civil Rights Act of 1964, which provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity that receives federal financial assistance. In addition, the project has been developed in conformity with related statutes and regulations mandating that no person in the State of California shall, on the grounds of race, color, sex, age, national origin, or disabling condition, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity administered by or on the behalf of Caltrans. No effects related to environmental justice would occur.

### 2.3.3.4 Avoidance, Minimization, and/or Mitigation Measures

Based on the discussion and analysis above, Build Alternatives 1 and 2 (LPA) would not cause disproportionately high and adverse effects on any minority or low-income populations, per EO 12898. There would be no adverse effects under Build Alternatives 1 and 2 (LPA); therefore, no mitigation measures are required.

## 2.3.4 Cumulative Impacts

### 2.3.4.1 Affected Environment

#### Community Impacts

**Resource Study Area:** The project site is the Pier Bridge, which is located in the southwestern portion of Los Angeles County, in the City of Santa Monica. The project site is in a highly urbanized area, and is surrounded by a variety of residential, commercial, institutional and recreational uses. The RSAs for community cohesion and relocations and property acquisition include the project site and surrounding communities. Census Tract 7019.02 is the RSA for assessment of potential environmental justice impacts.

**Existing Conditions within RSA:** The Pier Bridge is an important transportation link for the City because it connects the downtown and Civic Center districts to Santa Monica Pier as well as the beach and beach-side amenities. The Pier Bridge serves as an important transportation facility, allowing motorists, bicyclists, and pedestrians to travel between the beach and the city. The RSA is composed predominantly of high-income households (with higher per capita incomes than those of city and county households), with the majority not belonging to a minority group or a particular ethnic origin.

### 2.3.4.2 Environmental Consequences

**Potential Direct/Indirect Impacts within RSA:** Primary construction activities would not occur in residential areas, impair access, or otherwise adversely affect the functioning of the neighborhood, they would not disrupt or divide the community. Construction impacts would be temporary and alternate routes would be available. Therefore, construction-period impacts on community character and cohesion would not be adverse. Build Alternatives 1 and 2 (LPA) would improve access for pedestrians and bicyclists by providing a safer, wider structure that maintains connections from the city to its pier and beach resources. These features would represent an improvement over the existing design and would have a beneficial effect on long-term cohesion within the community.

The proposed project would require temporary acquisition of space leased by Heal the Bay. Through compliance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, there would be no adverse effects under Build Alternatives 1 and 2 (LPA) as a result of these acquisitions.

The Pier Bridge is a public use facility and does not restrict usage for any group, race, or class. No effects related to environmental justice would occur.

**Current and Reasonably Foreseeable Projects within RSA:** Given that the project area is largely developed and dedicated to open space and recreational uses, it is likely that any future new development would be limited to in-fill projects or reconstruction or renovation of existing uses. The proposed project would not cause adverse direct or indirect impacts on community cohesion, relocations and acquisitions, and environmental justice. Therefore, it would not contribute to cumulative community impacts in conjunction with current and reasonably foreseeable projects within the RSA.

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Table 2.3-3. Regional and Local Population Characteristics – Population/Demography

Area	Total 2019 Population	White	%	Black or African American	%	American Indian/ Alaska Native	%	Asian	%	Native Hawaiian/ Pacific Islander	%	Some Other Race	%	Two or More Races	%	Hispanic or Latino	%
Census Tract 7019.02/ Study Area	4,659	3,608	77.4	684	14.7	150	3.2	475	10.2	39	0.8	122	2.6	280	6.0	391	8.4
City of Santa Monica	91,577	74,353	81.2	5,396	5.9	1,565	1.7	12,433	13.6	242	0.3	3,523	3.8	4,571	5.0	14,097	15.4
Los Angeles County	10,081,570	5,482,585	54.4	931,544	9.2	162,763	1.6	1,647,167	16.3	56,950	0.6	2,242,205	22.2	228,504	2.3	4,888,434	48.5

Source: U.S. Census Bureau, 2019.

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## **2.4 Utilities/Emergency Services**

This section describes existing conditions as well as the applicable regulatory requirements related to utilities and emergency services. It also discusses the potential for utility and emergency service impacts on people or the surrounding environment resulting from the proposed project.

Desktop research was conducted in August 2020 to confirm that the information presented below has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

### **2.4.1 Affected Environment**

#### **2.4.1.1 Utilities**

##### **Water Supply**

The project site is within the City's water service area. The City of Santa Monica's (City's) Department of Public Works, Water Resources Division (Water Resources Division) is a retail water agency that provides potable and non-potable water throughout the City for single- and multi-family residential, commercial, and industrial uses, as well as landscaping irrigation and fire protection.

The City's water supply consists of local groundwater (derived from 10 active wells in the Santa Monica and Charnock subbasins); imported water purchased from the Metropolitan Water District of Southern California (MWD), a regional wholesaler of imported surface water, of which the City of Santa Monica (City) is a member agency; and recycled dry-weather urban runoff from the Santa Monica Urban Runoff Recycling Facility (SMURRF). Local groundwater resources supply, on average, 52 percent of the City's water. MWD purchases account for 29 percent, and recycled water accounts for 1 percent, with water conservation at 18 percent (City of Santa Monica 2017). The City maintains four water storage reservoirs, the Santa Monica Water Treatment Plant, pumping and regulating stations, pressure control valves and pressure stations, and more than 200 miles of pipeline.

A number of water conservation programs are in place within the City. In addition, Santa Monica Municipal Code Section 7.16.020 includes water conservation requirements regarding landscaping, irrigation, cleaning, and recreational facilities.

##### **Solid Waste**

Solid waste collection for residential properties and commercial establishments within the City is provided by the City of Santa Monica's Resource Recovery and Recycling Division. The Antelope Valley, Azusa Land Reclamation Co., Badlands Sanitary, El Sobrante, Frank R. Bowerman Sanitary, Lancaster, McKittrick Waste Treatment Site, Mid-Valley Sanitary, Olinda Alpha, Prima Deshecha, San Timoteo Sanitary, Simi Valley, Southeast Resource Recovery Facility, Victorville Sanitary, Chiquita Canyon, and Sunshine Canyon Landfills are the receiving landfills for waste collected in the City (CalRecycle 2020). The Santa Monica Community Recycling Center receives the remainder of the City's waste, including recyclables, green waste, and construction and demolition debris.



In 2018, the City's solid waste generation, as calculated by the California Department of Resources Recycling and Recovery, totaled approximately 91,425 tons of municipal solid waste (City of Santa Monica 2019). Of the waste generated, 81 percent was diverted through waste prevention, recycling, and composting; 19 percent was disposed of in landfills or waste-to-energy facilities.

As identified in the City's Zero Waste Strategic Operations Plan, the City's landfill waste stream is composed of approximately 50 percent commercial waste, 25 percent multi-family residential waste, 8 percent single-family residential waste, and 17 percent self-haul construction and demolition debris and additional materials disposed of by private companies or individuals (City of Santa Monica 2013).

Section 8.108.010, Subpart B, of the Santa Monica Municipal Code requires demolition and/or construction projects involving more than 1,000 square feet to divert at least 70 percent of waste material from landfills. It also requires applicants of covered projects to complete and submit a Waste Management Plan as part of the application packet for the construction or demolition permit.

One trash compactor that is owned and operated by the City is located under the Santa Monica Pier Bridge (Pier Bridge); it would be relocated during demolition and reconstruction of the bridge.

## **Storm Drains and Sewers**

The storm drain system in the City is made up of pipes and channels that are owned by the City of Santa Monica and the County of Los Angeles. However, a few drainage facilities within the Interstate 10 right-of-way are under California Department of Transportation (Caltrans) jurisdiction. Surface runoff from most of the City drains to the storm drain system through catch basins, from which it is later discharged to Santa Monica Bay. Five discharge points are located at Santa Monica Beach. Portions of the northern and southeastern parts of the City drain into county storm drains, which also discharge into Santa Monica Bay but outside City limits. The City maintains trash capture devices upstream of the storm drain outfalls.

The City maintains a dry-weather (urban) runoff treatment facility, the SMURRF, which began operation in December 2000. SMURRF treats dry-weather runoff from the Pico-Kenter and pier storm drains on a year-round basis. The water is reused for irrigation and toilets. Approximately 500,000 gallons per day of dry-weather (urban) flow can be treated at the SMURRF, which is adjacent to Santa Monica Pier. There are no storm drain facilities installed within the Pier Bridge. At the northeast portion of the Pier Bridge, the wet-weather (stormwater) runoff presently drains to existing curb drains at the intersection of Colorado Avenue and Ocean Avenue. At the southeast portion of the Pier Bridge, stormwater runoff travels to drain systems located on the pier. Dry-weather flows are collected from the parking lot north of the pier and beneath the pier in underground drains, then diverted into the City's storm drain system (City of Santa Monica 2016). In the summer of 2018, the City started storing both wet-weather and dry-weather flows from the pier drainage basin as well as the pier parking lot. This collected stormwater is in the Clean Beaches Initiative (CBI) cistern and pumped to the SMURRF for treatment.

## Electricity

In February 2019 for residential customers and May 2019 for non-residential customers, Clean Power Alliance (CPA) became the new electricity supplier for the City. CPA purchases electricity from a mix of renewable sources and partners with the Southern California Edison Company (SoCal Edison) to distribute electricity to residential and commercial customers throughout the City. CPA is a Joint Powers Authority (JPA) made up of public agencies across Los Angeles and Ventura counties working together to bring clean, renewable power to Southern California.

With the switch in energy providers, electricity customers in the City are automatically defaulted to receiving electricity from 100 percent renewable energy sources. Alternatively, customers can opt to have their electric power consist of 50 percent renewable content, or they can opt out of the CPA. According to the City's Office of Sustainability and the Environment, in 2019, 92 percent of residents and businesses have opted to receive clean power from the CPA.

For customers opting out of the CPA, SoCal Edison is their electricity service provider. SCE provides power to approximately 14 million individuals within an area of 50,000 square miles in central and Southern California. SCE is the largest subsidiary of Edison International, with a system of approximately 53,000 line miles of overhead lines, 38,000 line miles of underground lines, and approximately 800 distribution substations. Currently, 23 percent of the electrical power that SCE provides is from alternative and renewable energy sources.

Potential electrical facilities that may be affected by the project include an emergency backup generator for the Santa Monica Pier Aquarium and an electrical utility room, which would be relocated during demolition and reconstruction of the bridge. The emergency backup generation for the aquarium would be removed. In addition, the Pier Bridge contains four lampposts, the only electricity-consuming features on the bridge.

### 2.4.1.2 Emergency Services

#### Police Protection

The Santa Monica Police Department provides police protection and traffic enforcement services in Santa Monica. The Santa Monica Police Department is staffed by 483 employees, including 211 sworn officers and 254 non-sworn personnel (Santa Monica Police Department 2018). The Santa Monica Police Department has one central station, located at 333 Olympic Drive in Santa Monica (0.6 mile east of the Pier Bridge),<sup>1</sup> and three substations within the City. One of the three substations is located on Santa Monica Pier, at 300 Santa Monica Pier.

#### Fire Protection

The Santa Monica Fire Department provides all fire protection and paramedic services for Santa Monica. The department operates four fire stations within the City. Station 1 (approximately 0.7 mile from the project site, at 1337–1345 Seventh Street) is the primary responder in the project area. Station 1 is staffed with one paramedic engine company (Engine 1) with a crew of four, one paramedic engine company (Engine 6) with a crew of six, one 100-foot ladder truck (Truck 1) with a crew of five, one air/light-rescue unit (RU 1), one command vehicle with a battalion chief, and one reserve command vehicle (Battalion 1).

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<sup>1</sup> The distance listed is how far a vehicle would have to drive on roadways.

Santa Monica Fire Department Fire Station Nos. 2, 3, and 5 are available to provide backup services for Station 1. Fire Station No. 2 is at 222 Hollister Avenue, approximately 1.30 miles to the southeast of the site; Fire Station No. 3 is at 1302 19th Street, approximately 1.30 miles to the northeast of the site; and Fire Station No. 5 is at 2450 Ashland Avenue, approximately 2.56 miles to the east of the site. Backup service can also be provided by the City of Los Angeles Fire Department on an as-needed basis, through a Mutual Aid Agreement.

## **2.4.2 Environmental Consequences**

The alternatives under consideration include:

- Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier, namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) that would be used as an Americans with Disability Act– (ADA-) compliant access route (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent. Existing routes would remain available for ADA-compliant access. The replacement bridge would be approximately 448 feet long and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing bridge. Two variations for the bridge configuration are being considered, with the pedestrian path on opposite sides of the bridge.
- Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand. As time goes on, compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

Construction and operational impacts would be similar under both build alternatives. Therefore, they are analyzed conjointly throughout the analysis. Project elements and potential impacts that are unique to a particular build alternative or design option are called out as necessary. Under the No-Build Alternative, the project would not be constructed. There would be no adverse or significant hazardous materials impacts as a result of the proposed project.

### **2.4.2.1 No-Build Alternative**

Under the No-Build Alternative, the existing Pier Bridge would not be replaced. There would be no changes to existing utility or emergency services for the project site and immediate vicinity. However, without replacement of the Pier Bridge, further deterioration of the structure would continue, and in the event of a collapse, the direct connection provided for emergency response to the pier would be adversely affected.

## **2.4.2.2 Build Alternatives**

### **Water Supply**

#### *Construction*

Construction under both alternatives would require the occasional use of water for mixing concrete, washing equipment and vehicles, dust control, and other activities. The amount of water used during construction on a daily basis would be minimal. Because the proposed project would require only a small, limited quantity of water, adequate water supplies would be available to serve the project from existing entitlements and resources. No new or expanded entitlements would be needed. Therefore, construction impacts would not be adverse under NEPA and less than significant under CEQA.

#### *Operation*

The proposed project would replace the existing Pier Bridge with a bridge that would be structurally and seismically sound. The proposed project would operate as a transportation facility and would not generate water demand. Operation of the replacement Pier Bridge would not consume water that would generate a need for increased water supply. Neither of the build alternatives would result in long-term adverse effects under NEPA or significant impacts under CEQA on water supply.

### **Solid Waste**

#### *Construction*

Construction of the proposed project would generate solid waste from demolition of the existing bridge and associated structures as well as from excavated soils. As stated above, the City of Santa Monica has a minimum diversion requirement of 70 percent for construction and demolition debris (Construction and Demolition Material Waste Management Plans, Chapter 8.108, Subpart B, of the Santa Monica Municipal Code). The City also requires a Waste Management Plan to be prepared and submitted with the permit application. The proposed project would comply with the diversion requirement and haul diverted waste to an approved recycling facility for mixed construction and demolition debris. The City's various receiving landfill locations, as discussed in Section 2.4.1.1, have adequate capacity to accommodate any remaining solid waste that is not diverted to a recycler. The proposed project is estimated to generate 7,000 cubic yards of exported materials and waste over the construction period; with a minimum diversion rate of 70 percent, 2,100 cubic yards of waste could be transported to the landfill. Sunshine Canyon Landfill currently accepts an average of 8,300 tons (roughly 5,929 cubic yards) of debris per day.

Construction of either build alternative would result in relocation of a City of Santa Monica trash compactor that services nearby facilities. To ensure that the pier maintains essential services, including waste compaction, during construction of the project, the City would implement Mitigation Measure UES-1.

Provided that the project would comply with the solid waste standards set forth by the City and Mitigation Measure UES-1, it is not expected that construction of the proposed project would result in any adverse effects under NEPA or significant impacts under CEQA on landfills or solid waste disposal systems.

### *Operation*

The proposed project would operate as a transportation facility and would not generate solid waste. Therefore, the project would not result in adverse effects under NEPA or significant impacts under CEQA.

## **Storm Drains and Sewers**

### *Construction*

Under both build alternatives, construction activities would not include demolishing or disrupting any part of the City's existing storm drain system. The proposed project would comply with the Construction General Permit, which would require implementation of a Stormwater Pollution Prevention Plan to address erosion and sedimentation issues at the project site during construction. In addition, the project would comply with the requirements of the Santa Monica Municipal Code Chapter 7.10 – Runoff Conservation and Sustainable Management Ordinance, which prohibits the unlawful discharge into the City's storm drain system. In addition, best management practices would be implemented to control discharges into the storm drain system during construction.

Construction workers would consume water and generate wastewater. However, the additional water use from construction activities would not result in a substantial permanent increase in water consumption, and new water treatment facilities would not be required to meet this incremental and temporary increase in demand. Therefore, the proposed project would not exceed the wastewater treatment requirements of the Los Angeles Regional Water Quality Control Board. In addition, the City of Santa Monica Water Resources Division, which manages the wastewater collection system for Santa Monica, would have adequate capacity to serve the project's projected demand in addition to its existing commitments. Therefore, construction of the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities. Construction of the proposed project would not result in adverse effects under NEPA or significant impacts under CEQA on the City's storm drain system.

### *Operation*

Drainage on the replacement Pier Bridge under both build alternatives would be similar to that on the existing bridge and would function in a similar manner. The amount of surface runoff generated, as well as surface water quality, would be similar to existing conditions. Surface water runoff would continue to flow into nearby drains and/or catch basins. Existing storm drains would have adequate capacity to accommodate the surface drainage needs of the bridge; therefore, no new storm drains would be constructed. Please see Section 2.9.1.2 for the full analysis related to stormwater runoff.

As with operation of the existing Pier Bridge, operation of the replacement Pier Bridge would not produce wastewater. Therefore, there would be no impacts on the existing sewer system and wastewater treatment provider. Operation of the replacement bridge would have no adverse effects under NEPA or significant impacts under CEQA on the City's storm drain system.

## Electricity

### *Construction*

Santa Monica Pier would remain open throughout project construction. However, the pedestrian bridge may need to be temporarily closed to the public when the proximity of construction equipment could be a safety concern. During those closures, the public would be routed to Seaside Terrace or construction activities would be performed during the evening hours, which would require a special permit, to alleviate the inconvenience. During construction, safety lighting would be required along the temporary pedestrian bridge to ensure safe use of the pier during construction, especially if construction operations occur during the evening hours. Any construction operations that would occur at night would require adequate lighting. However, the lighting required would be minimal; most work would occur during daytime hours.

Construction of both build alternatives would require relocation of an emergency backup generator for the Santa Monica Pier Aquarium, located underneath the Pier Bridge, as well as relocation of a nearby electrical utility room. Relocation of existing utility facilities within the project limits would be carefully planned with input from the utility owners/operators in order to maintain essential services to the pier while the bridge is under construction. Construction would also require removal of the four lampposts that line the existing Pier Bridge along with a PA system and safety lighting systems. These components would be put back in place after construction or replaced in kind with modern replacements. As discussed above, the City would implement Mitigation Measure UES-1 to ensure that the pier maintains essential services during construction of the project.

Electrical service to the construction site would be provided from existing sources; no electrical infrastructure improvements would be required to provide the energy needed for construction of the proposed project. Therefore, with implementation of Mitigation Measure UES-1, no adverse effects under NEPA or significant impacts under CEQA would occur during construction related to electricity or electrical facilities.

### *Operation*

Operation of both build alternatives would closely resemble operation of the existing Pier Bridge. It would not introduce substantial energy-consuming features. The modern replacements of these features would use less energy and mark an improvement from the existing features. Therefore, operation of the replacement bridge would not result in adverse effects under NEPA or significant impacts under CEQA related to electricity or electrical facilities.

## Fire Protection

### *Construction*

During construction under both build alternatives, the Santa Monica Fire Department would respond to any incidents within the project vicinity, as it does now. Therefore, although construction could temporarily increase demand for fire protection services, it is unlikely that it would result in the need for new or altered fire protection facilities during the temporary construction period. However, emergency access to the project site could be affected by construction. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles,

thereby resulting in a potentially significant impact. To ensure adequate emergency access, acceptable traffic flow, and the Santa Monica Fire Department's ability to maintain adequate response times, the City would implement Mitigation Measure UES-2.

### **Operation**

Build Alternative 1 and 2 (LPA) would maintain existing ADA access.

Additional parking spaces would not be added as part of the proposed project. Therefore, the proposed project would not increase demand on fire protection services. Operation of the proposed project would have no adverse effects under NEPA and no impacts under CEQA on fire protection services.

### **Police Protection**

#### *Construction*

Given the large pool of construction workers within commuting distance of the project site, it is unlikely that workers would choose to move to the area during the course of construction. Therefore, project construction is unlikely to result in an increased demand for police services, both within the project vicinity and in the surrounding community. The proposed project would not require new or altered police facilities to maintain acceptable service ratios, response times, or other performance objectives.

Emergency access to the project site could be affected by construction. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles, thereby resulting in a potentially significant impact. To ensure emergency access, acceptable traffic flow, and the Santa Monica Police Department's ability to maintain adequate response times, the City would implement Mitigation Measure UES-2.

#### *Operation*

As described under the Fire Protection subheading, the replacement Pier Bridge Build Alternatives 1 and 2 (LPA) would improve accessibility for emergency services and would not increase demand for police services. The proposed project would not induce population growth, nor would it require expansion of existing service areas. Improvements to the bridge would result in a safer, more efficient structure overall. Therefore, there would be no long-term adverse effects under NEPA or significant impacts under CEQA on police protection services.

## **2.4.3 Avoidance, Minimization, and/or Mitigation Measures**

The following measures are proposed to mitigate impacts on utility services and police and fire protection services:

**UES-1.** Prior to construction activities that could affect utility services on the pier, the City of Santa Monica project manager and construction contractor shall coordinate with utility owners to develop a plan to maintain continuous essential services to the pier during construction.

**UES-2.** Both before construction begins and thereafter, the City of Santa Monica project manager and construction contractor shall regularly notify and coordinate with the Santa Monica Police Department and Santa Monica Fire Department during project design and scheduling, particularly in regard to any street or lane closures related to the proposed project.

## **2.4.4 Cumulative Impacts**

### **2.4.4.1 Affected Environment**

**Resource Study Area:** The proposed project would be located in the City of Santa Monica, in Los Angeles County, California, in a densely populated and developed area. The project site is surrounded by existing residential properties, businesses, roads, public walkways, a park, and structures on all sides and underneath the bridge. The resource study area (RSA) for the analysis of utilities and emergency services is the boundary of the City of Santa Monica.

**Existing Conditions within RSA:** Utilities within the RSA are currently provided by various sources. The City's current water supply consists of local groundwater, imported water purchased from MWD, and recycled dry-weather urban runoff produced at the SMURRF. Groundwater production has remained above 8,000 acre-feet since 2012. The projected water supply for 2020, 2025, 2030, 2035, and 2040 is 7,409 imported acre-feet, 12,500 groundwater acre-feet, and 560 recycled acre-feet.

In 2011, the City generated approximately 360,000 tons of waste material, 77 percent of which was diverted through waste prevention, recycling, and composting; 23 percent was disposed of in landfills or waste-to-energy facilities. As the population of the City grows, the amount of material generated is expected to gradually increase.

The storm drain system in the City is made up of pipes and channels that are owned by the City of Santa Monica and the County of Los Angeles. Surface runoff from most of the City drains to the storm drain system and catch basins; later, it is discharged into Santa Monica Bay. The system also includes the SMURRF, which has the ability to treat approximately 500,000 gallons per day.

Electricity within the RSA is currently provided by SCE, which services approximately 14 million individuals. Electricity usage has remained stable. In 1990, 2.6 million gigajoules (GJ) were consumed; in 2016, 2.9 million GJ were consumed.

Within the RSA, the Santa Monica Police Department provides police protection services. The Santa Monica Police Department is staffed by 483 employees. It has one central station and three substations in Santa Monica. Since 2006, the number of staff employees has not increased or decreased significantly.

Within the RSA, the Santa Monica Fire Department provides fire protection services. The Santa Monica Fire Department operates four fire stations and has more than 130 civilian staff members and firefighters.



#### **2.4.4.2 Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** Construction and operation of the proposed project would require the use of utilities and emergency services. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles. However, the City would implement Mitigation Measure UES-2, which would require coordination with the Santa Monica Police Department and Santa Monica Fire Department during project construction design, activities, and scheduling in order to minimize the delays.

**Current and Reasonably Foreseeable Projects within RSA:** Planned and pending development in the City, including the projects listed in Table 2.1.1-1 of this document, would cumulatively increase demands on utility and emergency services within the RSA.

**Cumulative Impact Potential:** Potential cumulative community impacts could occur if other projects in combination with the proposed project cumulatively contribute to significant delays that affect emergency response times in the vicinity of the project. This is not expected to occur under either the proposed project or the current and reasonably foreseeable projects within the RSA because implementation of Mitigation Measure UES-2 would require the City and emergency responders to develop plans for adequate access and response routes, taking into consideration detours and construction activities that may occur as a result of concurrent construction of the current and reasonably foreseeable projects.

The proposed project would replace an existing transportation facility with an improved facility. It would not result in a substantial change in the demand for utility services at the project site, even when considered in conjunction with other projects within the RSA. Therefore, the proposed project would not result in a cumulatively considerable impact.

#### **2.4.4.3 Avoidance, Minimization, and/or Mitigation Measures**

No cumulative impacts are anticipated, and no avoidance, minimization, and/or mitigation measures are proposed.

## **2.5 Transportation/Pedestrian and Bicycle Facilities**

### **2.5.1 Regulatory Setting**

The California Department of Transportation (Caltrans), as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an accessibility policy statement, pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). The FHWA has enacted regulations for implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to federal-aid projects, including transportation enhancement activities.

#### **2.5.1.1 Senate Bill 743 and California Environmental Quality Act Guidelines Section 15064.3**

Senate Bill (SB) 743, codified in Public Resources Code Section 21099, created a shift in transportation impact analysis under the California Environmental Quality Act (CEQA) from a focus on automobile delay, as measured by level of service (LOS) and similar metrics, toward a focus on reducing vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions. The legislature required the Governor's Office of Planning and Research (OPR) to propose new criteria for determining the significance of transportation impacts. The statute states that, upon certification of the new criteria, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA, except in locations that have been specifically identified in the new criteria. Lead agencies are still required to analyze a project's potentially significant transportation impacts related to air quality, noise, safety, and other resource areas that may be associated with transportation. The statute states that the adequacy of parking for a project shall not support a finding of significance.

The new criteria, contained in CEQA Guidelines Section 15064.3, was certified and adopted in December 2018. Section 15064.3 provides that VMT is the most appropriate metric for assessing transportation impacts, with limited exceptions (applicable to roadway capacity projects, which this project is not), and a project's effect on automobile delay does not constitute a significant environmental impact. Other relevant considerations may include the project's effects on transit and nonmotorized travel. Section 15064.3 further provides that transportation projects that reduce VMT should be presumed to cause a less-than-significant impact. A lead agency can elect to be

governed by Section 15064.3 immediately and be required to shift to a VMT metric by July 1, 2020. On June 9, 2020, the City of Santa Monica (City) adopted a VMT approach to transportation analysis.

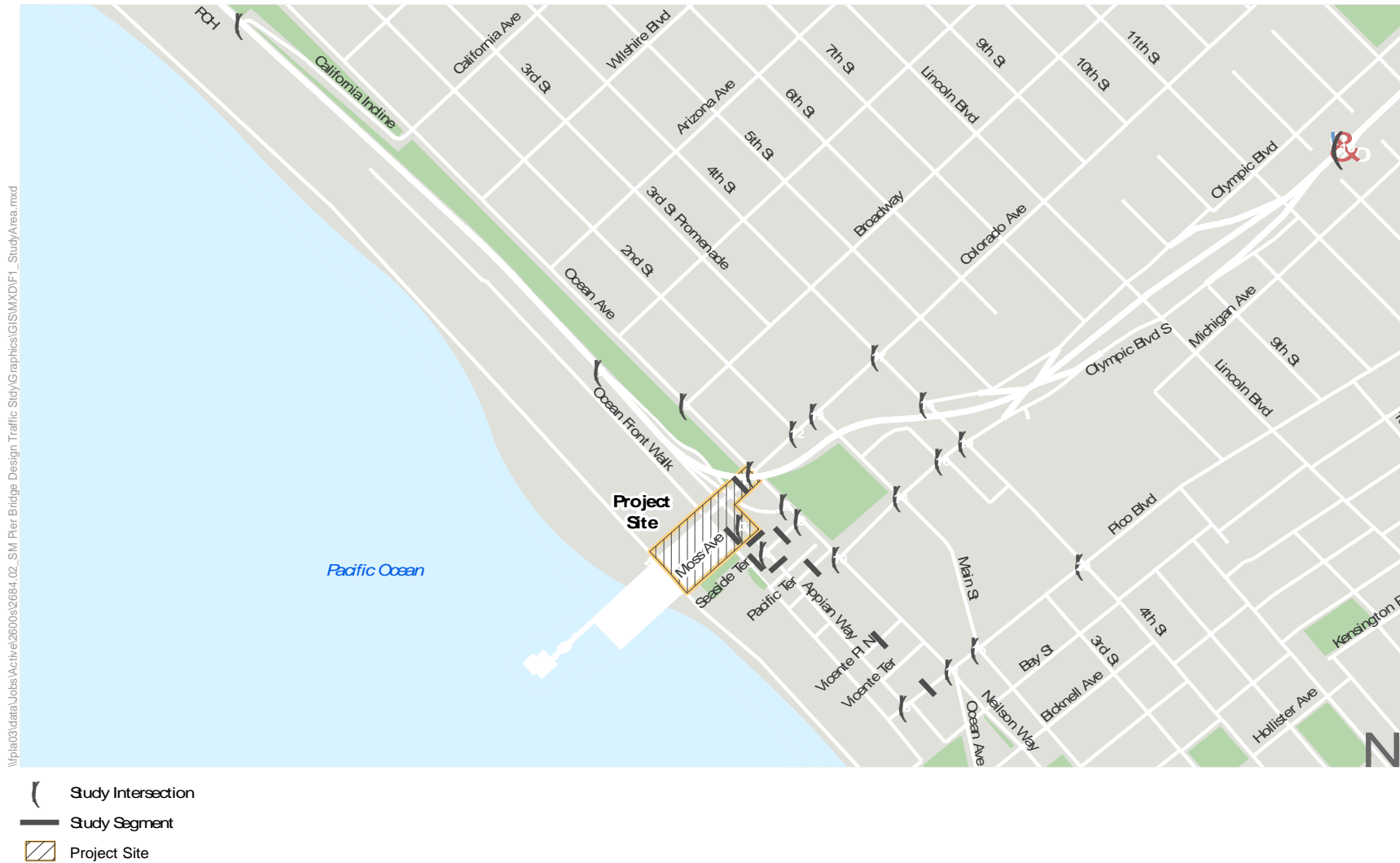
## 2.5.2 Affected Environment

The information presented in this section is based on the Santa Monica Pier Bridge Replacement Project Transportation Impact Analysis prepared by Fehr & Peers in November 2016, incorporated by reference, which was revalidated in June 2020. The new set of alternatives were found to have impacts similar to those of the original alternatives presented in the draft environmental impact report/environmental assessment (EIR/EA) prepared in 2016.

The project site is in the western portion of the city of Santa Monica, near the junction of the Santa Monica Freeway (Interstate [I] 10) and Palisades Beach Road (also known as Pacific Coast Highway [PCH] or State Route [SR] 1). Regional access to this area is provided primarily by I-10, Palisades Beach Road, and Lincoln Boulevard (SR-1). The Santa Monica Freeway transitions to PCH at the McClure Tunnel. The pier deck parking lot and Lot 1 North are accessed from the east via the I-10 off-ramps at Fourth Street and Fifth Street and from the north via Palisades Beach Road as well as the network of arterial and local streets in the vicinity of the project site (Figure 2.5-1).

The City Land Use and Circulation Element (LUCE) defines the street system according to its use by the various modes of transportation, including walking or traveling by bicycle, transit, or automobile. These street types include the following designations: Boulevard, Special Streets, Downtown Commercial, Neighborhood Commercial, Major Avenue, Secondary Avenue, Minor Avenue, Industrial Avenue, Neighborhood Street, Shared Street, Parkway, Pathway, Bikeway, Highway, and Alley. City streets surrounding the proposed project are described below, based on their designations in the LUCE:

- **Boulevard** – Boulevards are regional transportation corridors with continuous mixed-use and commercial land uses. Boulevards provide access for all forms of transportation but emphasize transit and walking. Regional automobile traffic is accommodated here to minimize regional traffic on parallel local streets. Boulevards in the study area include Ocean Avenue, Main Street, Pico Boulevard, and Fourth Street.
- **Special Streets** – These are unique and ceremonial streets that require special consideration. In the study area, the Special Streets are the Third Street Promenade and Ocean Front Walk.
- **Downtown Commercial** – These streets provide access for all transportation and support downtown Santa Monica. The Downtown Commercial street in the study area is Second Street.
- **Major Avenue** – These streets serve regional automobile trips and provide access for all modes of transportation. They are designed to discourage regional automobile traffic on Secondary or Minor Avenues. The Major Avenues in the study area include the California Incline.
- **Secondary Avenue** – These streets distribute automobile trips onto Minor Avenues and Neighborhood Streets, often serving regional bicycle trips. Secondary Avenues in the project area include Colorado Avenue and Olympic Boulevard.



Source: Fehr & Peers 2016.

**Figure 2.5-1. Study Area and Analyzed Intersections**

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- Minor Avenue – These streets serve local automobile and bicycle trips. The Minor Avenue in the study area is Fourth Street (south of Pico Boulevard).
- Neighborhood Street – These streets provide access primarily to individual residential neighborhoods. The design speed for these streets is below 25 mph so that bicycles can share the travel lane with cars and pedestrians can safely cross the street at any location. Vicente Terrace in the study area is a Neighborhood Street.
- Shared Street – These streets serve primarily areas where automobiles travel slowly enough to mix with people who are walking or bicycling. Shared Streets in the study area include Pico Boulevard (west of Ocean Avenue), Moomat Ahiko Way, Seaside Terrace, and Pacific Terrace.
- Parkway – Parkways serve as linear parks, incorporating continuous landscaping, recreational bikeways, and pedestrian paths. The Parkway in the study area is Ocean Avenue.

### **2.5.2.1 Existing Public Transit Service**

The study area is well served by public transportation, consisting primarily of bus service. Several Santa Monica Big Blue Bus and Los Angeles County Metropolitan Transportation Authority (Metro) bus routes cover streets adjacent to the project site. The pier is accessible by bus from most of Santa Monica and much of the Los Angeles metropolitan area. Eleven fixed-route buses have stops within 0.25 mile of the pier, and eight express bus routes operate within a 2-mile radius of the pier. The project site is within walking distance of the downtown Santa Monica terminus station of the Exposition light rail transit (Expo LRT) line, which connects Santa Monica with downtown Los Angeles and the greater Los Angeles region. The downtown Santa Monica station for the Expo LRT line at Fourth Street and Colorado Avenue is the final destination for the 15.2-mile line from downtown Los Angeles. In August 2017, weekday daily ridership on this light rail line averaged about 60,578 passengers per day. Expo LRT trains are currently running every 6 minutes during peak periods and every 12 minutes during off-peak periods.

### **2.5.2.2 Existing Bicycle Facilities**

The study area has an extensive bicycle and pedestrian network. Existing facilities within 0.5 mile of the pier are identified below. The city's existing bicycle network is shown in Figure 2.5-2.

The following streets in the project study area have either bicycle lanes or a separate path for cyclists:

- Beach Bicycle Path, northbound and southbound along the beach
- Ocean Avenue between San Vicente Boulevard and Bicknell Avenue
- Second Street between Montana Avenue and Colorado Avenue
- Main Street between Colorado Avenue and the southern city limits
- Broadway east of Fifth Street
- Arizona Avenue east of Ocean Avenue
- Colorado Avenue between Main Street and Ocean

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Source: City of Santa Monica 2020.

Figure 2.5-2. Existing Bicycle Network



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In addition to these facilities, the City has marked various designated bicycle routes with sharrows and “Bikes May Use Full Lane” signage to reinforce the fact that these are shared vehicle/bicycle facilities.

Bicycle access to the pier is provided by the Pier Bridge itself and the Beach Bicycle Path, which runs north–south beneath the pier. Westbound (downhill) cyclists typically ride in the roadway on the Pier Bridge. Because of the steep grade on the Pier Bridge, many eastbound bicyclists walk their bicycles uphill along the sidewalks or, during times of moderate to heavy pedestrian activity, within the travel lanes. Bicyclists who access the pier from the Beach Bicycle Path must carry their bicycles up one of the staircases that connect the pier to the beach level below or use the pedestrian ramps on the east end of the pier.

Bicycle parking is available throughout the study area, along Ocean Front Walk, in many parking structures, along streets, and at public and private facilities. For example, indoor bicycle parking and lockers are provided in Parking Structures 7 and 8 in downtown. The City continues to install racks throughout downtown and provides a free bicycle valet program for events such as the summer Twilight on the Pier concerts. In addition, the Bike Center at Second Street and Colorado Avenue, in Parking Structure 8, beside Santa Monica Place, provides a variety of mobility services, including bicycle repairs, bicycle rentals, attended bicycle parking, public information on alternative transportation, and related services.

### **2.5.2.3 Existing Pedestrian Facilities**

Currently, primary pedestrian access to the pier from downtown Santa Monica is provided by the Pier Bridge, which begins west of the intersection of Ocean Avenue and Colorado Avenue. At the southwest corner of Ocean Avenue and Colorado Avenue, a limited landing area is provided for pedestrians who are waiting to cross the Pier Bridge. However, the landing is not adequate for the high volume of pedestrians at this location. As a result, pedestrians must wait in the roadway or jaywalk across the Pier Bridge to Palisades Park. During periods of peak pedestrian activity, sidewalk landing areas on the north side of the intersection of Colorado Avenue and Ocean Avenue are crowded with people who are waiting to cross the street. Pedestrians “spill out” from the marked crosswalk and onto Ocean Avenue. Three of the four approaches to this intersection have marked crosswalks; the northbound approach does not. A pedestrian “scramble phase” was recently installed to provide exclusive access to pedestrians who need to cross this intersection.

A sidewalk is located on the north side of the Pier Bridge. It is separated from the two-way traffic stream by Jersey barriers. Data from previous studies revealed that more than 1,000 pedestrians (total for both directions) passed a single point on the Pier Bridge during the peak 15-minute period on a busy summer weekend. Because of the steep grade of the Pier Bridge and the distance to the pier itself from Ocean Avenue, some of the vehicular trips on the Pier Bridge are solely for the purpose of dropping off or picking up passengers. Pedestrian drop-off and pick-up activity associated with pier visitors and beachgoers also occurs on Ocean Avenue.

The pier is also accessible to pedestrians from two staircases on the south side that connect to Ocean Front Walk and the Beach Bicycle Path. There is also a staircase on the north side, leading to the beach and Lot 1 North. An accessible ramp is located at the east end of the pier, adjacent to Ocean Front Walk; an elevator is located in the Bubba Gump restaurant.

## 2.5.3 Environmental Consequences

### 2.5.3.1 Criteria for Determination of a Significant Traffic Impacts

The City of Santa Monica has established criteria for assessing whether project-related traffic would result in significant impacts. On June 9, 2020, the City adopted VMT as the metric for analyzing the transportation impacts of projects that are subject to CEQA, to align with Senate Bill (SB 743). VMT measures the cumulative distance of automobile travel, taking into account the origin and destination of a particular trip. Typically, development located at a greater distance from other land uses and in areas without transit generates more VMT than development near other land uses with more robust transportation options. Currently, VMT information is used to help measure other CEQA impacts, including air quality and greenhouse gas emissions at a project level and, in General Plan or program-level analysis, to identify long-range transportation impacts.

### CEQA VMT Screening Criteria Guidance

As a first step in the transportation review of projects, OPR's *Technical Advisory* provides suggested screening criteria that can be used to "screen" out projects from VMT analysis. For land use projects, the *Technical Advisory* and proposed CEQA Guideline Section 15064.3 (b)(1) state that "[g]enerally, projects within one-half mile of an existing major transit stop or a stop along an existing high quality transit corridor should be presumed to cause a less than significant transportation impact. "The presumption of a less than significant impact would not apply, however, if the project":

- Has a Floor Area Ratio (FAR) of less than 0.75
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization)

### City of Santa Monica Screening Criteria

The City utilizes a tiered screening criteria system for screening out projects from VMT analysis:

**Tier 1-** Does the project include the development of the following land uses which are screened out from further analysis?

- New construction of educational facilities/institutions (such as increased classrooms, gym/recreational space and other supportive areas) provided that there would be no student enrollment increase or if student enrollment is increased, at least 75% of the student body come from within 2.0 miles of the school
- Expansion or construction of new civic/government uses and utility facilities less than 50,000 sf or replacement of such uses/facilities (in same or another location) to serve the community, or if larger than 50,000 sf, the project would not result in more than 50 net new additional full time equivalent employees
- Local serving parks and recreational facilities

- 100% affordable housing
- 200 residential dwelling units or less
- 50,000 sf or less of commercial floor area per land use category

**Tier 2-** Is the project located within 0.5-mile walking distance of an Expo LRT station or 0.25-mile walking distance of a Bus Rapid Transit (BRT) stop?

**Tier 3-** Would the project provide more parking than required by Code (or, if located in an area that does not require parking, exceed parking maximums)?

### ***VMT Significance Thresholds***

For projects that are not screened out, a VMT analysis would be required to determine if a significant transportation impact will occur. To comply with SB743 while ensuring that future projects would support the City's progress in achieving mobility, land use planning, and sustainability goals, the City utilizes the following VMT thresholds:

### ***Land Use Projects***

- 1) VMT per capita: A project's VMT per capita must not exceed the existing Citywide average VMT per capita for that particular land use.
  - Residential - No greater than existing Citywide average VMT/capita
  - Commercial Employee - No greater than existing Citywide average VMT/capita
  - Retail - Any net increase in total City VMT
- 2) Total VMT threshold: The Project's combined residential and employee VMT for all uses must be at least 16.8% below existing Citywide "business as usual" VMT per capita. Business as Usual VMT is defined as what the calculated VMT for the Project would be if the Project were generating VMT per capita at the existing citywide average.

### ***Transportation Projects***

The City utilizes OPR's guidance pertaining to the set of screening criteria and significance criteria to address the VMT impacts of transportation projects, with some minor local amendments. With the switch to VMT, transportation projects that would induce vehicle travel would be considered to have an adverse significant transportation impact on the environment. The following list of projects are those which can be screened out per OPR's guidance.

- Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity
- Roadside safety devices or hardware installation such as median barriers and guardrails

- Roadway shoulder enhancements to provide “breakdown space,” dedicated space for use only by transit vehicles, to provide bicycle access, or to otherwise improve safety, but which will not be used as automobile vehicle travel lanes
- Addition of an auxiliary lane of less than one mile in length designed to improve roadway safety
- Installation, removal, or reconfiguration of traffic lanes that are not for through traffic, such as left, right, and U-turn pockets, two-way left turn lanes, or emergency breakdown lanes that are not utilized as through lanes
- Conversion of existing general-purpose lanes (including ramps) to managed lanes or transit lanes, or changing lane management in a manner that would not substantially increase vehicle travel
- Addition of a new lane that is permanently restricted to use only by transit vehicles
- Reduction in number of through lanes
- Grade separation to separate vehicles from rail, transit, pedestrians or bicycles, or to replace a lane in order to separate preferential vehicles (e.g., HOV, HOT, or trucks) from general vehicles
- Installation, removal, or reconfiguration of traffic control devices, including Transit Signal Priority (TSP) features
- Installation of traffic metering systems, detection systems, cameras, changeable message signs and other electronics designed to optimize vehicle, bicycle, or pedestrian flow
- Timing of signals to optimize vehicle, bicycle, or pedestrian flow • Installation of crosswalks, with or without vehicle yield compliance enhancements such as rapid rectangular flashing beacons or overhead lights • Installation of roundabouts or traffic circles
- Installation of pedestrian scrambles at existing intersections
- Installation or reconfiguration of traffic calming devices
- Adoption of or increase in tolls
- Initiation of new transit service
- Conversion of streets from one-way to two-way operation with no net increase in number of traffic lanes
- Removal or relocation of off-street or on-street parking spaces (unless the removal or relocation of spaces results in the creation of a new SOV through travel lane – turning pockets are exempt)
- Adoption or modification of on-street parking or loading restrictions (including meters, time limits, accessible spaces, and preferential/reserved parking permit programs) • Addition of wayfinding signage
- Rehabilitation and maintenance projects that do not add motor vehicle capacity
- Addition of new or enhanced bike or pedestrian facilities on existing streets/highways or within existing public rights-of-way (which include restriping of an existing vehicle lane for such facilities)

- Addition of Class I bike paths, trails, multi-use paths, or other off-road facilities that serve nonmotorized travel
- Installation of publicly available alternative fuel/charging infrastructure
- Addition of new neighborhood street to break up “superblock” between 400 and 1,500 feet in width and reduce driving distance

Similar to the methodology for analyzing land use projects, transportation projects would be reviewed to determine if they fall within a category of projects that can be screened out from VMT analysis. Transportation projects that are screened out presumably would not lead to a substantial or measurable increase in vehicle travel, and therefore generally would have a less than significant impact on VMT. These projects include a range of bicycle, pedestrian, and transit projects including typical maintenance and operations projects (such as signalization, minor improvements including traffic calming devices and wayfinding signage, etc.).

Adding roadway capacity or potentially building new roadways typically induces additional vehicle travel. For these types of projects, a VMT analysis should be conducted to determine if they lead to additional vehicle travel. A significant impact would occur if it would increase total Citywide VMT.

### **2.5.3.2 No-Build Alternative**

Under the No-Build Alternative, there would be no construction. Therefore, there would be no detours or other changes to existing traffic patterns, no routing of truck traffic through residential areas, and no changes to existing pedestrian or bicycle circulation patterns. Temporary *construction-period* impacts would not occur under the No-Build Alternative. Additionally, under the No-Build Alternative, the existing traffic patterns and circulation would remain unchanged.

### **2.5.3.3 Build Alternatives 1& 2 (LPA)**

#### **Construction**

Many of the construction activities and potential impacts are the same for both build alternatives; therefore, they are described together below.

Demolition of the existing Pier Bridge and construction of the replacement structure would last approximately 24 months under all build alternatives. The City normally allows construction from 8:00 a.m. to 6:00 p.m. Monday through Friday and from 9:00 a.m. to 5:00 p.m. on Saturdays. No construction is allowed on Sundays. Work outside normal hours would require City approval of an after-hours construction permit. Portions of the work may be performed outside of normal working hours when found to be in the public interest (e.g., for safety reasons or to avoid road closures).

During construction, each of the alternatives would have the characteristics listed below in common.

- The temporary pedestrian bridge would be set back approximately 5 feet from the existing bridge to allow for safe demolition of the existing bridge and construction of the new bridge. It would be confined to the City right-of-way and be approximately 4 feet from existing buildings

on Ocean Front Walk to the south. Access to the temporary pedestrian bridge would be from the Ocean Avenue/Colorado Avenue intersection. The temporary pedestrian bridge would have a grade similar to that of the existing bridge (10 percent) and be 8 feet wide. Given its narrow width, the temporary bridge would accommodate pedestrians only; however, it may not be able to accommodate peak weekend and holiday pedestrian levels. Additional signage would be provided to reroute pedestrians to alternative access routes north and south of the pier during peak weekend and holiday periods.

- Bicycle access to the pier would be maintained on existing city streets. The temporary pedestrian bridge would not be accessible to bicycles during construction. Bicycle access would be maintained along the Beach Bicycle Path throughout construction, except for short, controlled closures of the path next to the pier under the build alternatives for construction and removal of the temporary vehicular ramp.
- The temporary pedestrian bridge described above would have a steep grade and be narrower than the existing bridge; it would not be ADA compliant. People with disabilities would need to arrive at the pier by motor vehicle via the temporary vehicle ramp (discussed below), park in designated spots, then gain access to the pier from existing ADA-compliant ramp access points at Lot 1 North, Ocean Front Walk, or the pier deck. ADA-compliant access to the pier and beach would be provided from the southwest corner of Ocean Avenue and Moomat Ahiko Way as well as the sidewalk to the undulating ADA-compliant ramp next to the Santa Monica Urban Runoff Recycling Facility that connects to Appian Way and Seaside Terrace (see Section 1.3.1.2 for further information on existing ADA-compliant routes to the pier).
- A temporary ramp that would enable vehicles to access the pier parking area would be provided from Lot 1 North. The purpose of this ramp would be to maintain access to pier parking for regular vehicles but also provide emergency access. This ramp would be no higher than H-20 rated. Also, as shown in Figure 1-8, other areas are available for construction-related functions. Those areas would be used while the construction process is under way.
- For Ocean Front Walk and Appian Way, some temporary closures would be required in the interest of public safety during bridge demolition, foundation construction, and falsework erection/removal. Because of the closure of Appian Way, construction operations would be carefully planned so that access to Lot 1 North would continue to be provided.
- For Moomat Ahiko Way, the same closures discussed above for Ocean Front Walk and Appian Way would occur, but the limited vehicular clearance would result in additional restrictions. The vertical clearance under the Pier Bridge at Moomat Ahiko Way is approximately 15 feet, which is the minimum recommended by Caltrans for local streets. This amount of clearance allows truck traffic to pass underneath safely. Temporary falsework may be needed to construct the new bridge, which would reduce the vertical clearance to approximately 13 feet. This amount of clearance would not accommodate truck traffic. If approved by the City and Caltrans, Moomat Ahiko Way could be closed to truck traffic during construction; only automobiles would be allowed to pass under the falsework. Adequate traffic controls and signage would be provided to detour trucks around the construction area. If it should be determined that automobile traffic under the falsework poses safety concerns, Moomat Ahiko Way could be closed to all traffic during construction.

- Although the temporary vehicle ramp would be removed near the end of the overall construction period, it would temporarily reduce the capacity of Lot 1 North by eliminating approximately 35 parking spaces. When considered together with the loss of parking in Lot 1 North for construction staging, approximately 400 existing public parking spaces would be unavailable during the construction period.

As described above, the required roadway closures would result in a decrease in roadway capacity and increased congestion during construction. This, in turn, could affect existing access routes and response times for emergency vehicles. However, coordination with emergency medical service providers, the Santa Monica Fire Department, and Santa Monica Police Department, as described in Mitigation Measure TRA-1, would ensure that impacts on emergency access during construction would be minimized. Furthermore, the proposed project would not result in a change in air traffic patterns because air traffic-related operations would not be affected. However, construction of the build alternatives would temporarily increase traffic in the project area with the presence of construction workers as well as trucks for debris disposal and material delivery. The amount of traffic would vary during each phase of construction. Because the columns and the underside of the bridge are accessible from either Pacific Coast Highway or Appian Way, it is expected that truck traffic would use both routes. This would affect residential areas that front Appian Way and, potentially, Seaside Terrace. The amount of truck traffic generated during each phase of construction is not yet known but could be substantial on peak days and, therefore, is considered potentially significant during the construction period, without mitigation.

## Operation

The proposed project would improve both structural and operational safety at the Pier Bridge as well as access for all users. The project would help reduce existing hazards due to structural instability and the potential for conflicts among pedestrians, bicyclists, and automobiles, all of which share the Pier Bridge, a structure that lacks adequate, safe accommodation for all modes of transportation under existing conditions.

Per OPR, Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018), the proposed build alternatives fall under “Project Types Not Likely to Lead to Measurable and Substantial Vehicle Travel.”

*“Rehabilitation, maintenance, replacement, safety, and repair projects designed to improve the condition of existing transportation assets (e.g., highways; roadways; bridges; culverts; Transportation Management System field elements such as cameras, message signs, detection, or signals; tunnels; transit systems; and assets that serve bicycle and pedestrian facilities) and that do not add additional motor vehicle capacity”*

The project design under both proposed build alternatives with respect to traffic operations would be identical to that of the No-Build Alternative. The existing bridge would be replaced with a new bridge at the same location. Overall, both build alternatives are not capacity-increasing, and would not result in changes to traffic flow and/or circulation. Impacts to traffic would not occur as a result of any of the build alternatives, therefore, no mitigation is required.



## **CEQA Considerations**

Operation of the proposed project would not result in a change in air traffic patterns; the proposed project would replace an existing bridge. It would not affect any air traffic-related operations. In addition, it is anticipated that the proposed build alternatives would not result in an increase in VMT. The project would not substantially alter traffic patterns or circulation within the project area.

The proposed project would not substantially increase hazards due to a design or result in inadequate emergency access. Rather, it would improve safety by providing improved access for pedestrians, bicyclists, and vehicles along the Pier Bridge.

### **2.5.4 Avoidance, Minimization, and/or Mitigation Measures**

#### **2.5.4.1 Construction**

The following measure is proposed to mitigate construction traffic impacts under all proposed build alternatives:

**TRA-1.** A Construction Traffic Impact Mitigation Plan shall be prepared and implemented prior to construction to provide for traffic and parking capacity management during construction. This plan shall be subject to approval by the City Engineer and/or the City Traffic Engineer. The approved mitigation plan shall be posted on the project site for the duration of construction and be produced upon request. The plan shall include, but not be limited to, the following:

- Implement a public information program to advise motorists of impending and ongoing construction activities (e.g., use of media listings/notifications, the City website and related agency websites, portable message signs, informational signs at the construction site, a telephone hotline to record comments/complaints during construction);
- Obtain approval from the City, or Caltrans, if required, for construction-related vehicular detours or construction work requiring encroachment into public rights-of-way or any other street use (e.g., haul routes for earth, concrete, construction materials, equipment);
- Provide safety precautions for pedestrians and bicyclists through measures such as the installation of protection barriers and signage that indicates pedestrian and bicycle detours where existing facilities would be affected;
- Ensure the timely notification of construction schedules for all affected agencies (e.g., City Police Department, Fire Department, and Public Works Department; Planning Division of the Community Development Department; affected transit agencies [Santa Monica Big Blue Bus and Metro]; and all property owners and residential and commercial tenants within a radius of 500 feet);
- Schedule pre-construction meetings with affected agencies to plan the proper methods for controlling traffic through work areas;

- Schedule and expedite work so as to cause the least amount of disruption and interference with the adjacent vehicular and pedestrian traffic flow, including, to the extent feasible, the avoidance of full closures on Moomat Ahiko Way, Appian Way, and Ocean Front Walk during months of peak activity at the pier;
- Prepare a detailed traffic control plan for work zones that includes, at a minimum, parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. The plan shall include specific information regarding project construction activities that may disrupt normal pedestrian and traffic flows and measures to address disruptions.
- Monitor traffic conditions during construction and, if needed, assign traffic control officers to direct vehicular traffic and pedestrians;
- Limit the queuing of trucks to on-site locations and limit truck queuing on City streets;
- Restrict the storage of construction material and equipment to designated work areas;
- Provide a construction-period parking plan that minimizes the use of public streets for parking. This may include use of a remote location with shuttle transport to the site;
- If feasible and safe, as determined by the City and Caltrans, ensure that Moomat Ahiko Way remains open during major events and activities at Santa Monica Pier; and
- Unless required by the City and Caltrans, ensure that the California Incline remains open during the construction period for the proposed project.

In addition, any requests for work before or after normal construction hours within the public right-of-way shall be subject to review and approval through the after-hours permit process administered by the Public Works Department.

#### **2.5.4.2 Operation**

The proposed build alternatives would not require any permanent mitigation because no operational impacts would result. All build alternatives would maintain the existing local circulation patterns.

#### **2.5.5 Cumulative Impacts**

##### **2.5.5.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for the cumulative impacts analysis consists of surrounding streets, pedestrian and bicycle facilities in the vicinity of the project site, and the surrounding city of Santa Monica.

**Existing Conditions within RSA:** The RSA is served by a diverse array of transportation options. The existing Pier Bridge is used by pedestrians, bicyclists, and automobiles. However, its width and design are inadequate with respect to accommodating large crowds during peak periods. There are several parking lots and structures for motorists, who access the project site and the city from I-10; Pacific Coast Highway, also known as SR-1; and the local and regional street network. Bicycle lanes and bicycle paths are found throughout the city, including the project site.

The City of Santa Monica is considered to be a very walkable city. It offers a variety of sidewalks, pedestrian promenades, trails, and paths, which are used by locals and visitors alike. In terms of public transit, the city is well served by bus lines, particularly those operated by Santa Monica Big Blue Bus and Metro. The city of Santa Monica and the project vicinity are also connected to regional passenger rail lines. For example, the Expo LRT line connects downtown Santa Monica to downtown Los Angeles. The Expo LRT station is at Colorado Avenue and Fourth Street, about 3 blocks east of the Pier Bridge.

The city of Santa Monica is an important commercial, entertainment, and recreation center for the surrounding region. Therefore, it experiences large volumes of visitors, in addition to local residents. Although it is served by many alternative transportation options, is still subject to a substantial amount of congestion from automobile traffic.

### 2.5.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within RSA:** Construction of the build alternatives would result in temporary closures for several transportation facilities. In addition, detours during construction would increase vehicular traffic along some localized street segments and at some surrounding intersections. A construction traffic impact mitigation plan would be implemented to inform the public of potential impacts on access and circulation during the various phases of construction. The plan would also be used to manage circulation and access to the project site and vicinity during construction.

Operation of the build alternatives would not result in any impacts and, therefore, would not contribute toward a cumulative impact because circulation and access would remain the same as under existing conditions.

**Current and Reasonably Foreseeable Projects within RSA:** Although planned and pending development in the city could increase the number of vehicle trips, the projects are infill development projects in an already built-up area of the city. In addition, development would be consistent with the City's 2017 LUCE. However, the potential exists for cumulative impacts related to traffic if construction of this project and any nearby future project overlaps.

**Cumulative Impact Potential:** Potential cumulative impacts could occur because of the proposed project's potential for significant unavoidable impacts on localized traffic during construction of the build alternatives.

### 2.5.6 Avoidance, Minimization, and/or Mitigation Measures

Mitigation Measure TRA-1 would help to minimize impacts on access and circulation during construction. The inclusion of Mitigation Measure TRA-1 would reduce the level of impact of the proposed build alternatives to less than significant under CEQA and not adverse under the National Environmental Policy Act.

## 2.6 Visual/Aesthetic

### 2.6.1 Introduction

Information presented in this section is based on a visual impact assessment (VIA) that was prepared for the Santa Monica Pier Bridge Replacement Project by ICF in October 2016 and approved in November 2016 as well as an addendum to the VIA approved by the California Department of Transportation (Caltrans) in July 2020 (collectively referred to as the VIA). The VIA is based on the Federal Highway Administration's (FHWA's) 2015 guidelines, as outlined in *Visual Impact Assessment for Highway Projects*, and intended to conform to the visual impact analysis provisions of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

Following the public review period for the draft environmental impact report/environmental assessment (Draft EIR/EA), a re-examination of the alternatives was undertaken, which resulted in the formulation of two build alternatives. This section analyzes the impacts of Build Alternatives 1 and 2 (LPA) on aesthetics and visual quality. The 2016 VIA analyzed potential aesthetic impacts that would result from the three original build alternatives; the VIA addendum analyzed the two build alternatives proposed in this document.

### 2.6.2 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969, as amended, establishes that the federal government use all practicable means to ensure all Americans safe, healthful, productive, and *aesthetically* (emphasis added) and culturally pleasing surroundings (42 United States Code [USC] 4331[b][2]). To further emphasize this point, the Federal Highway administration (FHWA), in its implementation of NEPA (23 USC 109[h]), directs that final decisions on projects are to be made in the best overall public interest, taking into account adverse environmental impacts, including, among others, the destruction or disruption of aesthetic values.

The California Environmental Quality Act (CEQA) establishes that it is the policy of the state to take all action necessary to provide the people of the state "with...enjoyment of *aesthetic*, natural, scenic and historic environmental qualities" (Public Resources Code [PRC] Section 21001[b]).

California Streets and Highways Code Section 92.3 directs Caltrans to use drought-resistant landscaping and recycled water when feasible and incorporate native wildflowers and native and climate-appropriate vegetation into the planting design when appropriate.

In addition to federal and state policies regarding the issue of aesthetics and character, the City of Santa Monica (City) addresses the topic in several local policies related to aesthetics, including those in the Land Use and Circulation Element, Historic Preservation Element, Scenic Corridor Element, Open Space Element of the City General Plan, the 1990 Land Use Plan of the Local Coastal Program, and the 2018 Draft Land Use Plan. Aesthetics is further addressed in the City's Zoning Ordinance through a range of development standards, which are applied by district. Both the specific general plan policies and development standards related to aesthetics are described in greater detail in the VIA (October 2016) and the addendum to the VIA (May 2020) prepared for this project and found in Appendix K of this EIR/EA.

### 2.6.3 Affected Environment

The following key terms describe visual resources in a project area. The terms are used as descriptors and as part of a rating system to assess a landscape's visual quality. In addition to their use as descriptors, vividness, intactness, and unity are used more objectively as part of a rating system to assess a landscape's visual quality.

- *Visual character* includes attributes such as form, line, color, and texture; it is used to describe, not evaluate, visual resources.
- *Visual quality* is evaluated by identifying the vividness, intactness, and unity present in the project area.
- *Vividness* is the extent to which the landscape is memorable and associated with distinctive, contrasting, and diverse visual elements.
- *Intactness* is the integrity of visual features in the landscape and the extent to which the existing landscape is free from non-typical visual intrusions.
- *Unity* is the extent to which all visual elements combine to form a coherent, harmonious visual pattern.

Resource change, one of two major variables that are used to determine visual impacts, refers to the character and quality of the visual resources that make up a project corridor before and after construction of a project. The other major variable is viewer response, which is the response of viewers to changes in their visual environment.

#### 2.6.3.1 Project Location and Setting

The project site is located in the city of Santa Monica, on the western edge of Los Angeles County, abutting Santa Monica Bay and the Pacific Ocean. The region, which is characterized by the Los Angeles metropolitan area, generally consists of a sprawling core of highly urbanized cities. The region supports primarily residential, commercial, and industrial land uses, along with open space. Major water bodies include Santa Monica Bay, the Pacific Ocean, and the Los Angeles River.

The project site at Santa Monica Pier includes the Santa Monica Pier Bridge (Pier Bridge). The Pier Bridge connects the intersection of Ocean Avenue and Colorado Avenue to the pier, which stretches about 1,000 feet into Santa Monica Bay. The site is adjacent to Palisades Park, which is northeast of the project site. The landscape of the project corridor is characterized by the low-lying beach that gently slopes up from the ocean to the urban edge of Santa Monica. North and south of the pier, the terrain is relatively flat. Areas throughout Palisades Park are also relatively flat, although they provide a vantage point that is different from that of the bluffs at the park's edge, which are between 50 and 150 feet above sea level. The pier is a popular destination for beachgoers, tourists, and other recreational users. The aesthetic appeal of the site is relatively high because of its shoreline location and view of the Pacific Ocean. In addition, a number of protected historic and scenic resources contribute to the overall appeal and character of the project area, including:

- **Pier Bridge.** The Pier Bridge links the intersection of Ocean Avenue/Colorado Avenue to Santa Monica Pier. The bridge begins at Colorado Avenue and terminates where it reaches the deck of the pier. The bridge consists of a concrete roadbed, approximately 30 feet wide, that is supported on a series of reinforced concrete columns. Functioning as a two-way street, the bridge has one 9.33-foot-wide pedestrian walkway on the north side, which is separated by a temporary concrete traffic barrier (i.e., K rail). Both sides of the bridge are bounded by 42-inch-high metal railings. The design of the bridge is not particularly distinctive or unique. It is relatively free from encroaching elements. The bridge itself forms a physical and visual connection between the urban area along Ocean Avenue and Santa Monica Pier, along with the ocean.
- **Pier Sign.** The pier sign is approximately 26 feet high at its highest point and 9 feet high at its lowest. The sign, which is approximately 34 feet wide, consists of a gentle arch that spans the space between two short pylons. The arch is capped by a segment bearing the words “Santa Monica.” The lettering on the main arch reads “Yacht Harbor, Sport Fishing, Boating,” with the words separated by stars. A small segment below the main arch, in the center, reads “Cafes.” The lettering is Streamline Moderne in style, in keeping with the nautical theme that was commonly employed in buildings along Santa Monica’s Ocean Avenue. The sign is made of metal that has been painted blue, white, and gold; it is lit by white and yellow neon tubing. The pier sign is supported on a metal framework, with cross bars riveted in place. The pier sign, which was constructed in 1940, is listed on the California Register of Historical Resources (CRHR) and has been determined eligible for the National Register of Historic Places (NRHP) (see Section 2.10, *Cultural Resources*). The pier sign is a vivid visual element. No physical encroachments currently block views of the sign. As a self-contained visual feature that is distinct from its surroundings, it is memorable both in its immediate vicinity and as a landmark for the city.
- **Santa Monica Pier.** Santa Monica Pier is composed of what were previously considered two adjacent piers, Newcomb Pier and Municipal Pier. Both piers were constructed using a traditional timber structure (the original concrete and steel construction from 1908 failed in 1921). The pier contains Loeff’s Hippodrome, which houses a carousel. Loeff’s Hippodrome is designated as a National Historic Landmark, as described in Section 2.10, *Cultural Resources*. Pacific Park, an amusement park that has been in operation since 1996, is also located on the pier. It contains rides such as the distinctive Ferris wheel and roller coaster as well as game booths. The pier has many different visual elements, including distinctive buildings (Loeff’s Hippodrome, Billiards Building), rides (roller coaster, Ferris wheel), and other facilities. Overall, the appearance has a unity and cohesiveness in its design and its adherence to the characteristic historic style of the 1940s era.
- **Loeff’s Hippodrome.** Loeff’s Hippodrome is a large structure that shelters a carousel at the east end of Santa Monica Pier. It is square in plan, measuring 100 feet wide on each side. The structure has an eclectic Moorish- and Byzantine-inspired architectural style, with four 36-foot-high towers at the corners and a 65-foot-high domed cupola at the center. Rows of arched windows line the lower floors, allowing large amounts of light inside.
- **Carousel Park.** Carousel Park, located just east of Santa Monica Pier, is named for the antique carousel at its entrance. The postmodernist park was part of a waterfront redevelopment plan that resulted in replacement of the pier in the mid-1980s. Designed between 1984 and 1987 by the architectural firm Moore Ruble Yudell and landscape

architects Campbell & Campbell, Carousel Park is frequently credited with contributing to the renaissance of Santa Monica Pier in the late 1980s (The Cultural Landscape Foundation 2018). It features a stepped octagonal entryway with poured-in-place light standards, an enlarged deck around the carousel, a pavilion, and a 5,000-square-foot children's playground on the south edge of the site. The playground includes a custom-made concrete ship and a dragon, which was sculpted from river-washed granite boulders. Two large ramps provide access from Ocean Front Walk to the deck of the pier. To the south, a large wood-plank amphitheater and stairs provide access from the beach to the pier deck. These elements are flanked by two octagonal towers that echo the architectural elements of the carousel building.

- **Pacific Ocean, Santa Monica State Beach, and Coastal Shoreline.** Vantage points throughout the project area provide panoramic public views of the beach and Pacific Ocean, which are among Santa Monica's primary visual resources, creating a memorable landscape with unique and harmonious visual elements.

The visual interest and scenic relief the historic and scenic resources provide can be attributed to the features that define them (i.e., the sloping gradient, the visibility of Pacific Park and Ferris wheel, Carousel Park, Loeff's Hippodrome, and the expansive panoramic views of the beach and Pacific Ocean). These elements dominate most of the viewsheds throughout the project area and project corridor. Relative to these, other elements are smaller in form and scale. The Pier Bridge, Loeff's Hippodrome, Carousel Park, pier businesses, Pacific Park, and the Ferris wheel are prominent features. Beach areas have a fine-textured appearance. Trees and shrubs along State Route (SR) 1, Ocean Front Walk, and Palisades Park or associated with residential and commercial landscaping provide natural diversity against the built environment. Because of temperate seasonal changes, the color of the scenery is relatively consistent. At night, the pier and Ferris wheel are the primary elements of visual interest for viewers because of their form, color, associated lighting, dominance, and diversity.

Public views of the site are available from various public vantage points, including Ocean Avenue, Palisades Park, Pacific Coast Highway (PCH), and the nearby beach. From Ocean Avenue, looking west, pedestrians and motorists can see the pier sign and an adjacent palm tree, but the Pier Bridge and pier deck are mostly obscured. Viewers may be able to partially see the distinctive roofline of Loeff's Hippodrome as well as the Billiards Building, roller coaster, and Ferris wheel. From Palisades Park, pedestrians walking along the recreational paths can see the pier sign, Pier Bridge, and the tops of the buildings and attractions at Pacific Park as well as Lot 1 North. Motorists in Lot 1 North and on PCH, as well as recreationists on the beach, can clearly view the Pier Bridge, the peach/gray Moorish-inspired design of Loeff's Hippodrome, the Billiards Building, the back of the boathouse building, the wooden wall that supports the upper level of the pier deck, the pier storage bay, and the north pier entrance sign (smaller than the main sign on Ocean Avenue but with a similar design). The vista for pedestrians walking along Ocean Front Walk looking toward the ocean affords clear views of the pier parking lot and Ferris wheel as well as partial views of the roller coaster and the ocean.

Various points on the project site afford different views of the surrounding area. From the Pier Bridge, looking west, pedestrians and motorists can see Loeff's Hippodrome, certain attractions in Pacific Park (notably, the Ferris wheel), the beach, and the ocean. Looking north, one can see the entry lanes to Lot 1 North, the beach maintenance building, and distant views of the Santa Monica Mountains. Looking east, the blue-gray riveted cross bar structure that supports the pier

sign from the back can be seen. Looking south, Ocean Front Walk, the pedestrian entry to the pier, and part of Looff's Hippodrome can be seen; a partial view of the Santa Monica Pier Aquarium entrance on the beach level of the pier is available as well. The pier deck near Looff's Hippodrome entrance affords views of the Pier Bridge, Lot 1 North, the adjacent Billiards Building, and the entrance to the pier parking lot.

## Key Views

It is not feasible to analyze all views from which the proposed project would be seen. Therefore, it is necessary to select key views that clearly depict the potential visual effects of the project on key viewer groups (discussed in greater detail below) that could be affected by the project. A view is considered key if at least one of the following circumstances applies:

- Visual resources are present, regardless of the quality of the view. The sensitivity of the affected viewer group is medium or high, and the duration of the view is long term.
- The quality of the view is medium or high, regardless of whether visual resources are present. The sensitivity of the viewer group is medium or high, and the duration of the view is long term.
- The view is distinct, clear, and unobstructed from the street to adjacent businesses and viewed regularly by a large number of commuters. In this case, the viewer sensitivity would be medium, and the view would be long term.

A total of five key views are analyzed in this document to clearly convey the visual setting throughout the project area. These five key views were selected using the city's Draft 2018 Land Use Plan of the Local Coastal Program, which designates seven protected view corridors (VCs) and five protected vantage points (VPs), as illustrated in Figure 2.6-1, that could be affected by the proposed project. These Draft 2018 Land Use Plan of the Local Coastal Program VCs and VPs include:

- Palisades Beach Road from the McClure Tunnel to the Northern City Boundary (VC)
- Adelaide Drive from Ocean Avenue to the Coastal Zone Boundary (VC)
- California Incline from Palisades Beach Road to Ocean Avenue (VC)
- Barnard Way from Ocean Avenue to the Southern City Boundary (VC)
- Ocean Avenue from Barnard Way to the Northern City Boundary (VC)
- Ocean Front Walk from Pico Boulevard to the 1550 Parking Lot (VC)
- Santa Monica Pier from the Santa Monica Pier Deck, West of Ocean Front Walk (VC)
- Colorado Avenue and Fourth Street, Looking West (VP)
- Main Street Bridge Crossing over Interstate 10, Looking West (VP)
- Tongva Park, Looking West (VP)
- Wilshire Boulevard and Third Street, Looking West (VP)
- Fourth Street Bridge over Ocean Park Boulevard, Looking West (VP)





Source: City of Santa Monica Land Use Plan 2018.

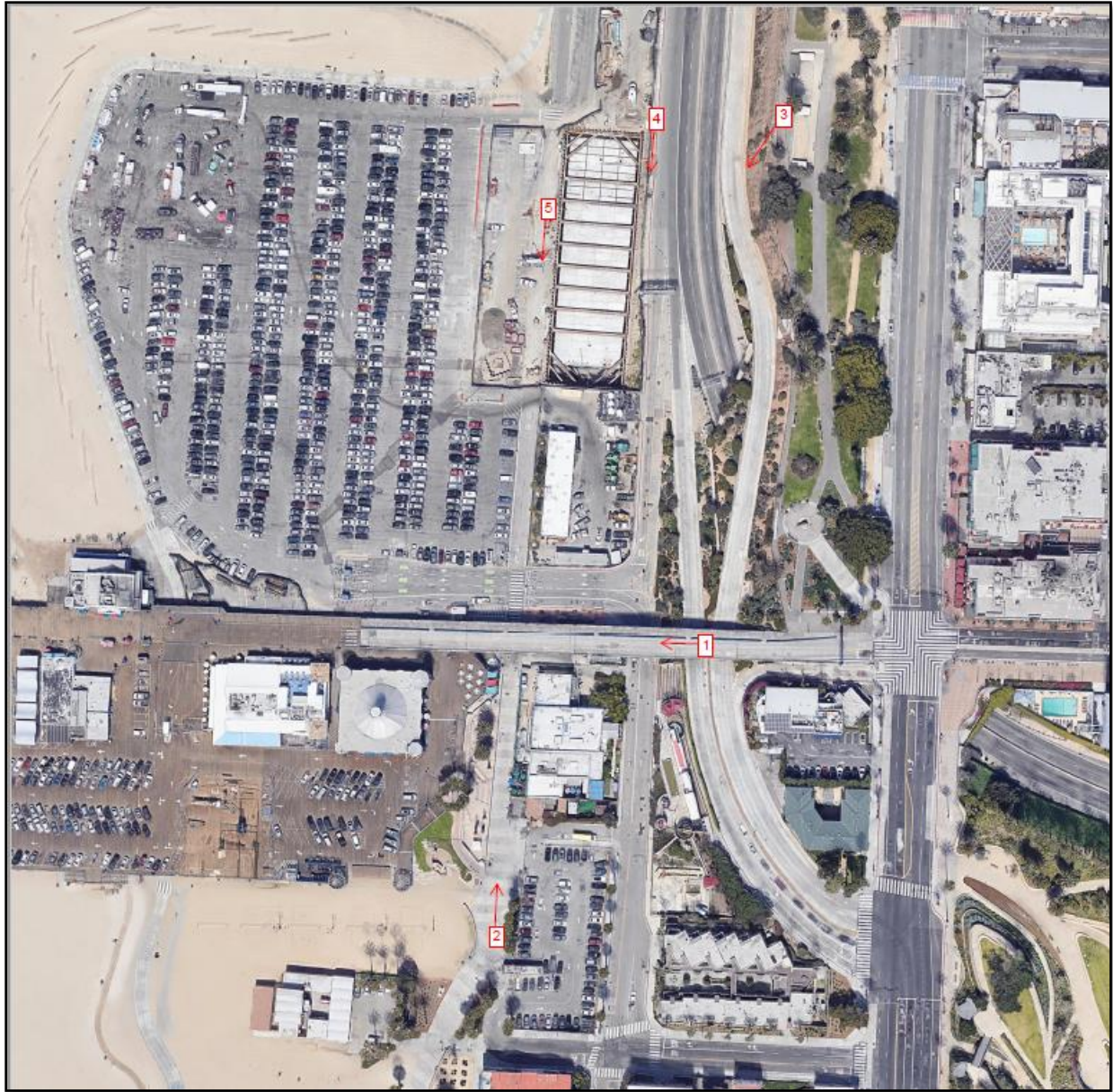
**Figure 2.6-1. Scenic View Corridors and Vantage Points**

The five key views, identified in Figure 2.6-2, were selected because they represent the most sensitive views seen by sensitive viewers (i.e., those who are most likely to be affected by Build Alternatives 1 or 2 (LPA)). The selected key views are presented below. The visual simulations for each of the two build alternatives from the five key views used for analysis in Section 2.6.4, *Environmental Consequences*, are found in Appendix K.

## Visual Quality

As described above, visual quality refers to the aesthetics of the view. It is evaluated by identifying the vividness, intactness, and unity present in the project corridor. For the purpose of this analysis, visual quality is assessed for vantage points on the pier and bridge, south of the pier, within Palisades Park, within the Ocean Avenue and Palisades Beach Road corridors, and north of the pier.

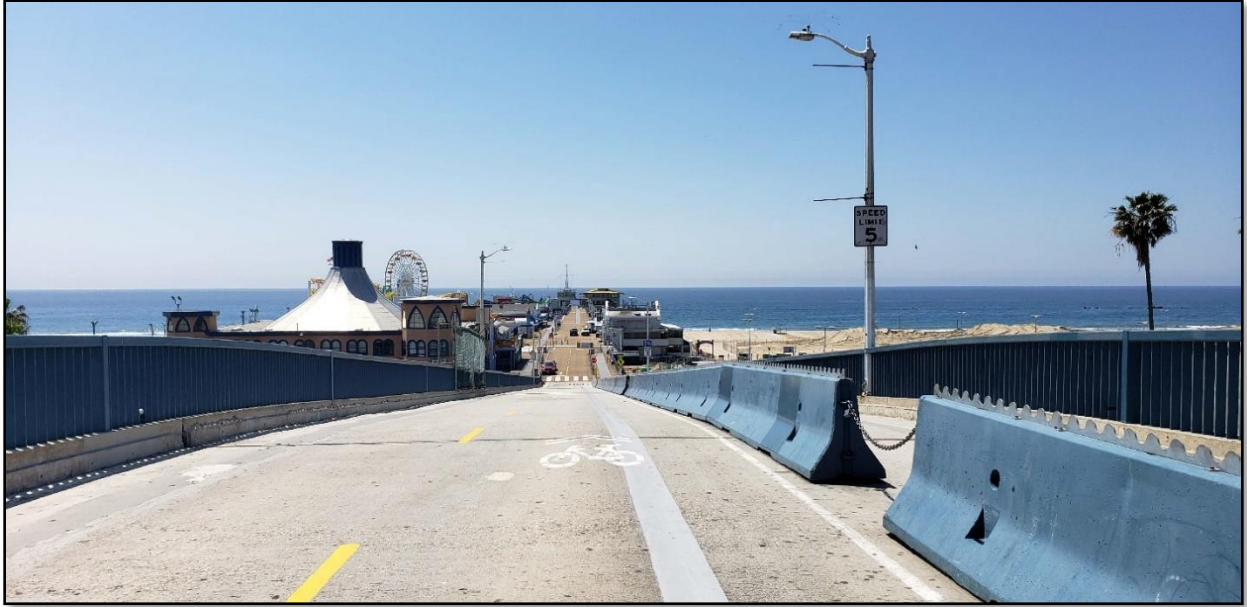
The vividness of the views from public vantage points on the pier and bridge, which include Key View 1, is high because of the assortment of visual resources in the area. These include portions of Palisades Park, the Pier Bridge, pier sign, Carousel Park, Loeff's Hippodrome, Santa Monica Pier (i.e., amusement park, businesses on the pier), and the views of Santa Monica State Beach, the shoreline, and the Pacific Ocean. It should be noted that views from Key View 1 would be held while the viewer is in motion, as there is no space on the bridge for a pedestrian to step aside or a motorist or cyclist to stop. The presence of these visual resources creates a memorable landscape with unique and diverse visual elements. The intactness is moderate because of its relative freedom from non-typical visual intrusions. However, man-made intrusions do exist in viewsheds throughout these vantage points. Typical intrusions include elements such as lampposts along the Pier Bridge and Lot 1 North and the signage throughout the pier and on/for nearby structures/facilities. Unity is high because of the smooth transition between pier-adjacent land uses, the pier itself, and the shoreline. The resulting visual quality is moderate-high to high.



Source: T.Y. Lin 2020.

**Figure 2.6-2. Key Views**





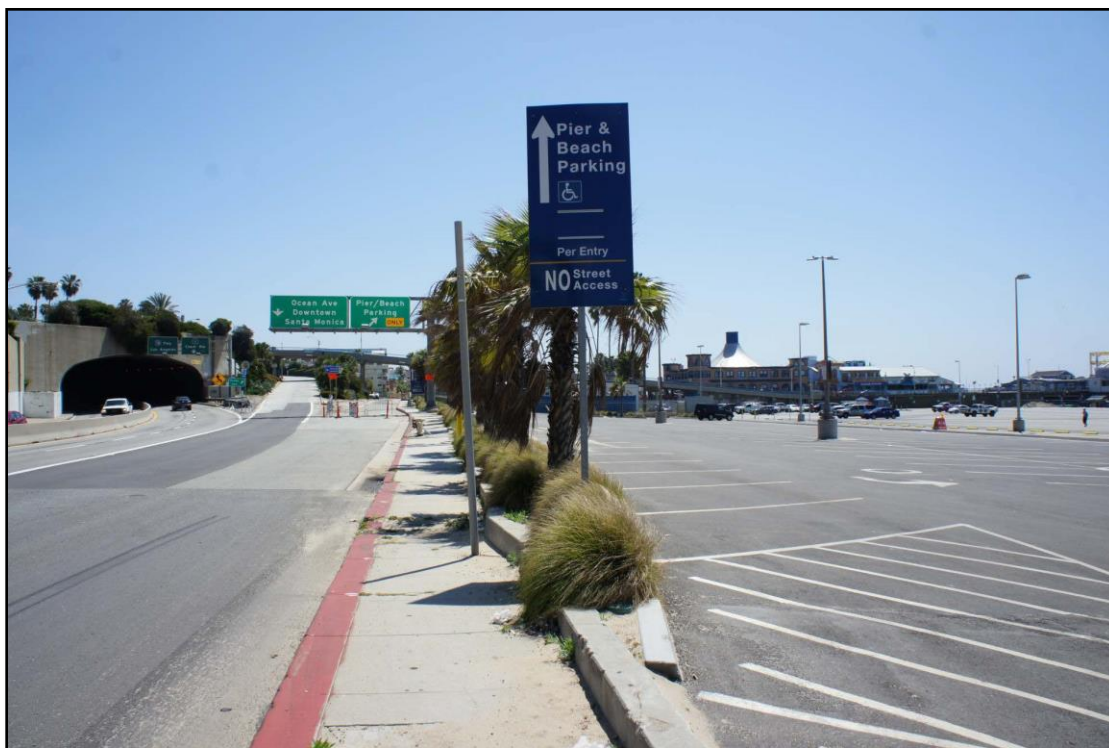
**Figure 2.6-2a. Key View 1 – From Pier Bridge Apex, Looking West**



**Figure 2.6-2b. Key View 2 – Looking North toward Pier Bridge**



**Figure 2.6-2c. Key View 3 – Looking Southwest from Palisades Park**



**Figure 2.6-2d. Key View 4 – Looking South toward Pier from Parking Lot 1**





**Figure 2.6-2e. Key View 5 – Looking South toward Pier from Parking Lot 1**

The vividness of the views from vantage points south of the pier, which include Key View 2, is moderate-high because the visual resources provide a memorable landscape with distinctive, contrasting, and diverse visual elements. These include the Pier Bridge, Loeff's Hippodrome, Santa Monica Pier (i.e., amusement park, play features in the southeast area of the pier [known as Carousel Park]), Santa Monica State Beach, the shoreline, and the Pacific Ocean. The presence of these visual resources creates a memorable landscape with unique and diverse visual elements. The intactness is moderate-high because of the relative freedom from typical visual intrusions. Unity is moderate-high because of the smooth transition between pier-adjacent land uses, the pier itself, and the shoreline. The resulting visual quality is moderate-high.

The vividness of the views from vantage points within Palisades Park, which include Key View 3, and from the Ocean Avenue and Palisades Beach Road corridors is high because of the assortment of visual resources within the area, providing topographic relief, a variety of vegetation, rich colors, impressive scenery, and unique natural and built features. The high vividness can also be attributed to the features that define the Pier Bridge and pier, with its sloping gradient, Loeff's Hippodrome, and expansive panoramic views of the beach and Pacific Ocean. The intactness is moderate because of its relative freedom from non-typical visual intrusions. However, similar to views at the pier and bridge, man-made intrusions do exist in viewsheds throughout Palisades Park and along the view corridors. Typical intrusions include elements such as lampposts along the Pier Bridge and Palisades Park and the signage throughout the pier, Lot 1 North, and on/for nearby structures/facilities. Views throughout these areas are highly unified because the juxtaposition of the pier, Pier Bridge, and SR-1 with Santa Monica State Beach and the Pacific Ocean creates a harmonious visual pattern. The resulting visual quality of the Palisades Park visual assessment unit and key views from the north is moderate-high.

The vividness of the views from vantage points north of the pier, which include Key Views 4 and 5, is moderate. Although surrounding visual resources provide a memorable landscape with distinctive, contrasting, and diverse visual elements, the primary feature of the view is a large parking lot, which is a common visual element along this portion of the coastline. Intactness and unity are also moderate because of the relative dominance of Lot 1 North and its supporting structures. Otherwise, views from vantage points north and west of the pier are relatively free of the typical visual intrusion and man-made encroachment, providing scenic relief for viewer groups. The resulting visual quality is moderate to moderate-high.

Overall, visual quality throughout the project area is moderate-high.

## **Light and Glare**

Sources of light at the project site and in the vicinity include the bridge, pier parking lot, Lot 1 North, the Ferris wheel, and the street lighting along PCH, Ocean Avenue, and throughout Palisades Park. The pier sign is lit at night by neon tubing; the restaurants on the pier and rides in Pacific Park, including the Ferris wheel, are also lit at night. The primary sources of glare include the sun's reflection off metallic or glass surfaces on parked vehicles on the pier deck and in Lot 1 North.

Light-sensitive uses are those that depend upon light for their operation (e.g., solar panels) or for which solar access is essential to their function (e.g., swimming pools). Light-sensitive uses also include uses where excessive light and glare may disrupt sleep or other activities. The Pier Bridge, pier sign, and Lot 1 North are not considered light-sensitive uses. Certain recreational facilities may be light sensitive, depending on their function. The carousel (inside Loeff's Hippodrome) and the Santa Monica Pier Aquarium are primarily indoor facilities and therefore not dependent on light to function. They would not be considered light sensitive. The aquarium, located underneath the pier deck at beach level (directly below Loeff's Hippodrome), is partially shaded by the Pier Bridge.

Residential uses are considered light sensitive. The closest residences to the pier are approximately 400 feet to the southeast.

### **2.6.3.2 Viewers and Viewer Response**

Two major types of viewer groups are of primary concern for bridge projects: bridge neighbors and bridge users. Each viewer group has its own particular level of exposure and sensitivity, resulting in distinct and predictable visual concerns for each group, concerns that help in the evaluation of their responses to visual changes. More detailed information on viewers and viewer response is provided in the VIA technical report prepared for this project (ICF 2016).

Bridge neighbors are people who live adjacent to the bridge and have views of the bridge. For the proposed project, this group is composed of recreationists, including beachgoers, pedestrians, joggers, sightseers, and cyclists; motorists, including passengers; local commuters traveling southbound on SR-1 and along the east edge of the bridge, primarily those traveling northbound/southbound through the intersection of Colorado and Ocean Avenue and westbound on Colorado Avenue at the same intersection; haulers; residents; and business employees and patrons adjacent to the bridge. Bridge users are people who have views from the bridge. For the

proposed project, this includes recreationists, including beachgoers, pedestrians, joggers, sightseers, and cyclists; motorists, including passengers; local commuters; haulers; and business employees and patrons.

Generally, viewer exposure throughout the project corridor is considered to be high. Bridge neighbors (i.e., residents) and business employees would have long-term stationary views of the proposed project. As a result, they would have high exposure. Views of the project by these viewer groups, located primarily in the bridge and pier areas as well as areas south of the pier, would vary according to their location within the landscape and the distance from the project site. The largest viewer group that would have direct contact with the proposed project would be users of the bridge, consisting primarily of recreationists. Although they cross the bridge in a short period of time, they often use surrounding amenities. Therefore, they occasionally have longer views of the bridge and high exposure (City of Santa Monica 2015). Many of these viewers are attracted to the project corridor because of its high visual quality and the presence of historic, scenic, and visual resources. However, views by motorists, passengers, haulers, and local commuters would be shorter than those of the aforementioned groups. Therefore, they would have moderately high exposure. SR-1 is an eligible State Scenic Highway, and Ocean Avenue and Palisades Beach Road are identified as scenic corridors in the City's Draft 2018 Land Use Plan of the Local Coastal Program. As a result, a composite viewer group, with high exposure, has been identified to represent these viewer groups.

Viewer sensitivity throughout the project corridor is also considered to be high. Bridge neighbors (i.e., residents) and business employees are engaged in their surroundings, have highly focused views, and imbue local values. As a result, they have high sensitivity. Users of the bridge, many of whom are attracted to the project corridor because of its high visual quality and historic, scenic, and visual resources, are also engaged in their surroundings and have highly focused panoramic views. Therefore, they would have high sensitivity with respect to the proposed project-related changes. Although motorists, passengers, haulers, and local commuters would have less awareness than the aforementioned groups, because of the eligibility of SR-1 as a State Scenic Highway and Ocean Avenue and Palisades Beach Road as a scenic corridor, these viewer groups are also considered to be highly sensitive. Overall, the viewer response of both bridge neighbors and bridge users to the project would be moderate-high to high; the group viewer response would also be moderate-high to high. However, it should be noted that in public meetings for the proposed project, users and neighbors have stated their support for the project; this consideration would substantially lower viewer sensitivity insofar as a negative response to the visual change would be concerned. The composite viewer group response would, therefore, be considered to be moderate.

#### **2.6.4 Environmental Consequences**

This analysis follows the methodology outlined in the *Visual Impact Assessment for Highway Projects* (Federal Highway Administration 2015), which is considered an accepted standard for evaluating visual effects associated with highway, railroad, and a wide range of non-transportation-related projects. The alternatives under consideration include:

- **Build Alternatives 1 and 2** (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier, namely one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) that would be

used as an pedestrian access route (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent. Existing routes would remain available for ADA-compliant access. The replacement bridge would be approximately 448 feet long and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing bridge. Two variations for the bridge configuration are being considered, with the pedestrian path on opposite sides of the bridge.

- Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not meet ADA standards. As time goes on, compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of Build Alternatives 1 and 2 (LPA).

Construction and operational impacts would be similar under both build alternatives. Therefore, they are analyzed conjointly throughout the analysis. Project elements and potential impacts that are unique to a particular build alternative or design option are called out as necessary. Under the No-Build Alternative, the project would not be constructed. There would be no adverse or significant visual impacts on existing visual character, visual quality, or affected viewer groups as a result of the proposed project.

## Construction

Construction activities for Build Alternatives 1 and 2 (LPA) would involve the use of backhoes with hydraulic rams, dump trucks, cranes, drilling rigs, concrete trucks, and other construction equipment. Visible activities would include the removal of pavement and the structural elements of the existing bridge, the erecting of falsework, other routine construction activities, and deliveries by truck. Construction staging/stockpiling, the storage of road-building materials, the presence of construction equipment, construction fencing/barriers, and temporary traffic barricades would result in minor temporary visual intrusions at the staging locations. The overall duration of construction for Build Alternatives 1 and 2 (LPA) is projected to be 24 months. Nighttime construction would not occur regularly.

The proposed replacement bridge would be built along the same alignment as the existing Pier Bridge under both build alternatives. Access to some bridge and pier areas would be temporarily removed during construction. Although many views from vantage points on the pier and bridge would still be available, elements of the pier structure and viewsheds from some vantage points would be altered during construction. Build Alternatives 1 and 2 (LPA) would share the same locations as well as the temporary visual changes associated with the staging area in Lot 1 North, the pedestrian bridge south of the Pier Bridge, and the road closures for Ocean Front Walk, Appian Way, and Moomat Ahiko Way. For Build Alternatives 1 and 2 (LPA), pedestrian access between the pier and the Ocean Avenue/Colorado Avenue intersection would be maintained through construction of a temporary pedestrian bridge adjacent to and south of the Pier Bridge. The temporary pedestrian bridge would be set back approximately 5 feet from the existing bridge to allow safe demolition of the existing bridge and construction of the new bridge. Furthermore,



the temporary pedestrian bridge would be confined to the City right-of-way and approximately 4 feet from the buildings on Ocean Front Walk to the south. Access to the temporary pedestrian bridge would be from the Ocean Avenue/Colorado Avenue intersection. The temporary pedestrian bridge would have a grade similar to that of the existing bridge (10 percent) and be 8 feet wide. Given its narrow width, the temporary bridge would accommodate pedestrians only; however, it may not be able to accommodate peak weekend and holiday pedestrian attendance levels at the pier. Additional signage would be provided to reroute pedestrians to other alternative access routes north and south of the pier during peak weekend and holiday periods.

To remove the existing bridge, portions of the pier that connect to the bridge would be partially removed to facilitate the use of demolition equipment. After demolition is complete, viewers would see the new bridge structure being constructed in the same location as the existing bridge. The proposed replacement bridge structures would vary in width under Build Alternatives 1 and 2 (LPA). Build Alternatives 1 and 2 do not have enhanced ADA access.

The bridges under Build Alternatives 1 and 2 (LPA) would be approximately 4 feet wider than the existing bridge; (one 20-foot-wide path for vehicles and bicycles, a 15-foot-wide sidewalk for pedestrians).

Under Build Alternatives 1 and 2 (LPA), access to the Pier Bridge would be altered, and vehicular traffic would be redirected. Pedestrian access would be in the same area but from a temporary pedestrian bridge. In addition, the number of parking spaces would be temporarily diminished; however, parking would still be available in the same general area, within the unaffected portions of Lot 1 North. Although somewhat disrupted, physical and visual access would be retained to all areas that are accessible from the existing Pier Bridge (e.g., parking areas and the beach). Therefore, only temporary changes with respect to access to the existing bridge would occur; access to other areas would not be affected.

Modifications to the pier would include removal of the existing bridge, deck reconstruction, temporary pedestrian bridge construction, and construction of minor design elements. However, these features would be reconstructed and replaced in kind so as to maintain the existing visual quality and character. Therefore, all construction activity under Build Alternatives 1 and 2 (LPA) would result in minor and temporary construction impacts throughout the project area. There would be no substantial, noticeable long-term effect on the visual surroundings. Temporary visual changes due to construction are not considered to be substantial and would not result in adverse effects under NEPA or significant impacts under CEQA.

Permanent visual elements that would be introduced during construction and would remain after the completion of construction, such as columns and the bridge platform, are evaluated below.

## Operation

As described under *Key Views* in Section 2.6.3.1, because it is not feasible to analyze all views from which the proposed project would be seen, it is necessary to select key views that clearly depict the potential visual effects of the project. Key views represent the primary viewer groups that would be affected by the project. Five key views were chosen to assess the potential visual effects of Build Alternatives 1 and 2 (LPA), as presented and analyzed below. Visual simulations

were created for the key views to represent the maximum extent of visual change introduced by the proposed project and depict the potential visual changes that would be introduced throughout the project area by the proposed project. Because of the similarity in viewsheds, overall visual quality and potential visual intrusions among Key Views 4 and 5 are analyzed conjointly. A summary of the expected visual changes associated with Build Alternatives 1 and 2 follows the analysis of key views.

### Visual Character and Quality

Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current paths of access from Ocean Avenue to the pier, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path, consisting of a sidewalk, which would also be used for ADA-compliant access (15 feet, 0 inches wide). Existing routes would remain available for ADA-compliant access, as described in Chapter 1, *The Proposed Project*.

Bridge widening would not impede views of existing scenic resources. Pier features that would be affected during construction would be reconstructed and replaced in kind. Overall, these features would generally retain their existing visual quality and character.

The proposed project elements would not affect sightlines to other scenic resources from similar vantage points and would maintain available scenic vistas, including public views to the beach and ocean. As a result of the proposed project's general similarity with respect to the existing alignment, as well as design elements that would essentially match existing design elements, the project would be consistent with existing visual character.

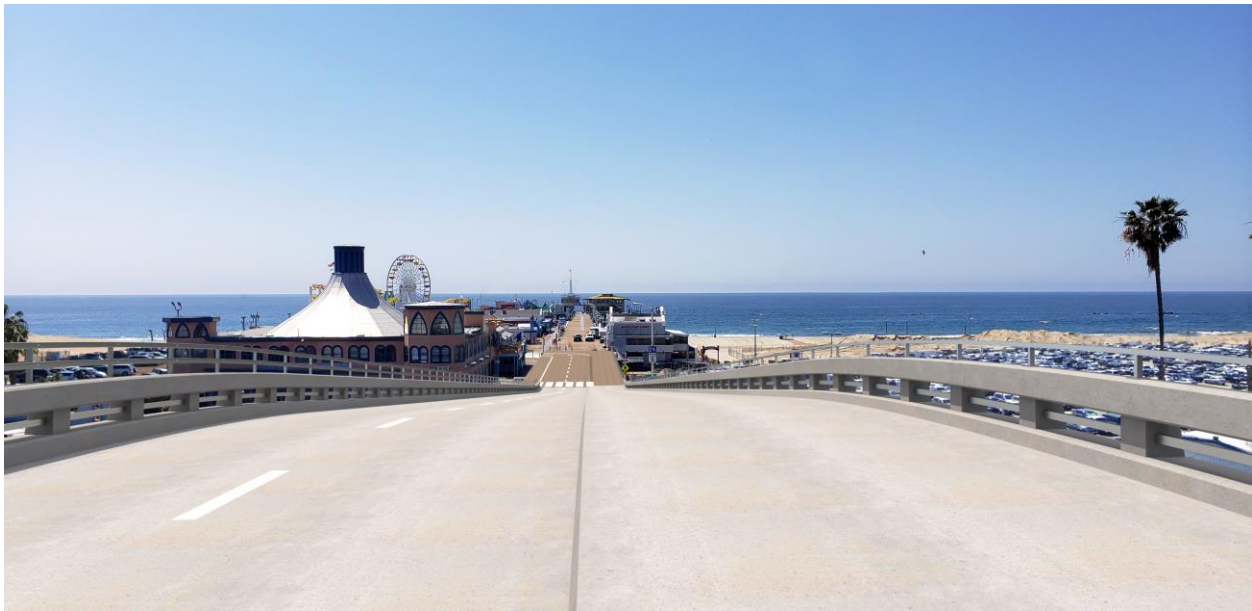
Lastly, the proposed project would be designed to minimize impacts through City Landmark Commission and City Council review, which requires context-sensitive design; maintenance of local character; appropriate articulation in the form of setbacks, offsets, and projections; a mix of architectural materials and elements to establish an aesthetically pleasing pattern; sensitivity to historic resources; and overall protection of public views. Therefore, the project would not conflict with local zoning or regulations governing scenic quality within an urbanized area.

Impacts on the five key views are discussed below. The corresponding visual simulations for the key views are also located in Appendix K. Please see Appendix K for further details.

### **Key View 1**

Key View 1 would not be noticeably altered compared with existing conditions because Build Alternatives 1 and 2 (LPA) represent in-kind replacement of the existing Pier Bridge. Key View 1 vantage point would be retained. Similarly, the introduction of the built visible elements associated with the proposed project would not damage, destroy, or otherwise interfere with, affect, or diminish the historic significance of Looff's Hippodrome under NRHP Criterion A by altering its contributing elements, such as its massing, setback on the pier, arched windows, octagonal towers, decorative finials, exposed wood beams, and roof. For more information on the proposed project's potential impacts on cultural and historic resources, please see Section 2.10, Cultural Resources, of this EIR/EA. As such, the proposed project is not expected to substantially alter overall visual quality in the project area. The existing lampposts would require replacement.

Other built elements that would be introduced under Build Alternatives 1 and 2 (LPA) include the widened bridge deck, which includes the following: eastbound and westbound vehicular traffic lanes, a sidewalk, bridge barriers, and hand railings. Bridge railings will be upgraded to meet current safety standards and guidelines. The new bridge railings will be Caltrans standard-type barriers and have an open aesthetic look. They will also be the American Association of State Highway and Transportation Officials *Manual for Assessing Safety Hardware*–rated barrier type. Bridge railings will be in keeping with the overall design aesthetic of the Pier District and, as such, are not anticipated to have visual impacts. Although the look of the bridge would be slightly different because of widening, the improvements would create additional visual interest in the project corridor and a more unified appearance between vehicular travel lanes and pedestrian travel ways. The replacement bridge would not detract from views because the alignment would be very similar to that of the existing bridge, and the design would be context sensitive, in accordance with the City General Plan. Therefore, it would not substantially deteriorate views along the bridge alignment or on the Pier Deck.



Source: T.Y. Lin 2020.

**Figure 2.6-3a. Key View 1 Simulation for Alternative 1**



**Figure 2.6-3b. Key View 1 Simulation for Alternative 2**

### **Key View 2**

From the vantage point of Key View 2, bridge widening would not be readily visible. There would be no obstruction of visual features under Build Alternatives 1 and 2 (LPA). Similar to Key View 1, the replacement bridge under both build alternatives would not detract from views because the alignment would be very similar to that of the existing bridge, and the design would be context sensitive, in accordance with the City General Plan. Therefore, it would not substantially deteriorate views along the bridge alignment or on the Pier Deck.



**Figure 2.6-3c. Key View 2 Simulation for Alternative 1**





**Figure 2.6-3d. Key View 2 Simulation for Alternative 2**

### **Key View 3**

This vantage point is from Palisades Park, at a higher elevation than the project site. Alteration of the width of the bridge would not result in readily visible changes to the view from this location. Build Alternatives 1 and 2 (LPA) would not affect sensitive viewers because new vertical elements would not be introduced. Existing structures partially block views of Loeff's Hippodrome from this vantage point, and the alternatives would not further obstruct this view. Other new built features, such as lampposts and handrails, would not be readily visible from this vantage point. Similar to Key View 1, the replacement bridge under both build alternatives would not detract from views because the alignment would be very similar to that of the existing bridge, and the design would be context sensitive, in accordance with the City General Plan. Therefore, it would not substantially deteriorate views along the bridge alignment or on the Pier Deck.



**Figure 2.6-3e. Key View 3 Simulation for Alternative 1**



**Figure 2.6-3f. Key View 3 Simulation for Alternative 2**



**Key Views 4 and 5**

Both of these vantage points are looking south toward the Pier Bridge from Parking Lot 1. Build Alternatives 1 and 2 (LPA) would not have an effect on views from these vantage points because they would represent in-kind replacement of the existing bridge. Bridge widening would have no discernable effect on views from these vantage points. Other new built features, such as lampposts and handrails, would not be readily visible from this vantage point. Similar to Key View 1, the replacement bridge under both build alternatives would not detract from views because the alignment would be very similar to that of the existing bridge, and the design would be context sensitive, in accordance with the City General Plan. Therefore, it would not substantially deteriorate views along the bridge alignment or on the Pier Deck.



**Figure 2.6-3g. Key View 4 Simulation for Alternative 1**



**Figure 2.6-3h. Key View 4 Simulation for Alternative 2**



**Figure 2.6-3i. Key View 5 Simulation for Alternative 1**



**Figure 2.6-3j. Key View 5 Simulation for Alternative 2**



## Scenic Routes

As noted, the City's recent update to the Draft Land Use Plan of the Local Coastal Program identified seven view corridors (City of Santa Monica 2018). Views of the Pier Bridge exist from various points within these view corridors. The proposed project elements would not affect sightlines to the Pier Bridge or other scenic resources from these view corridors and would maintain available scenic vistas, including public views to the beach and ocean. As a result of the proposed project's general similarity with respect to the existing alignment, as well as design elements that would essentially match existing design elements, the project would be consistent with existing visual character.

## Light and Glare

Existing ambient illumination levels are fairly high. As previously discussed, lighting is associated primarily with lampposts on and under the bridge/pier, vehicular traffic, signage on SR-1 and adjacent roadways, parking areas and pedestrian paths, and signage for nearby businesses. Bridge lighting that would be removed would be replaced at or near the existing location. The project is not expected to introduce elements that would contribute substantially to new light.

Under Build Alternatives 1 and 2 (LPA), materials and colors used on the replacement bridge would be similar to those on the existing bridge. Although the replacement bridge would result in more surface area, it would not be expected to result in substantial glare. Therefore, the proposed project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

## Summary of Expected Visual Changes

The composite viewer response from the key views would be moderate. Viewers within the project area are familiar with the existing bridge. The proposed bridge would be in keeping with the existing visual environment. In addition, widened bridge deck, and associated elements, such as vehicular lanes, bicycle lanes, sidewalks, barriers, and hand railings for both build alternatives, would not substantially alter visual resources in the project area. Therefore, the proposed bridge would not substantially alter the existing visual character of the project area, as seen from the key views.

The vividness of the views would not be substantially affected by the proposed project elements, and the rating would remain high. Views of visual resources would be preserved. The proposed bridge would not introduce new structures; however, the intactness would remain moderate-high because these changes would be in keeping with the appearance of the composition depicted in the key views and in the overall project corridor. Similarly, unity would still be high because the project changes would not substantially compromise the smooth transition between existing visual elements within the viewsheds. The resulting visual quality would remain moderate-high to high.

Operation would result in a resource change throughout the views that would be low for all key views; the resulting visual impacts would be moderate low because of moderate viewer response (refer to Table 2.6-1, below, for a summary of visual impacts). Therefore, because Build Alternatives 1 and 2 (LPA) and design options would not remove, destroy, or completely

**Table 2.6-1. Summary of Visual Changes**

Key View	Build Alternatives 1 and 2 (LPA)		
	Resource Change	Viewer Response	Visual Impact
1	L	M	ML
2	L	M	ML
3	L	M	ML
4	L	M	ML
5	L	M	ML

obstruct significant visual resources; substantially compromise or diminish publicly valued views; result in substantial changes to the overall visual character or quality in the project area; conflict with local zoning or regulations governing scenic quality within an urbanized area; or introduce new sources of significant light and/or glare, the bridge replacement would not result in an adverse effect under NEPA or a significant impact under CEQA.

Visual impacts are determined by assessing changes to visual resources (resource change) and predicting viewer response to those changes. Resource change and viewer response are assessed qualitatively, using the following ratings: Low (L), Moderate-Low (ML), Moderate (M), Moderate-High (MH), and High (H).

## **2.6.5 Avoidance, Minimization, and/or Mitigation Measures**

No adverse effects involving aesthetics and/or visual quality are anticipated as a result of the proposed project because the project would be designed to minimize impacts and would be subject to City Landmarks Commission and City Council Review, which would ensure context-sensitive design; maintenance of local character; appropriate articulation in the form of setbacks, offsets, and projections; a mix of architectural materials and elements to establish an aesthetically pleasing pattern; sensitivity to historic resources; and overall protection of public views. Therefore, no avoidance, minimization, and/or mitigation measures are proposed.

## **2.6.6 Cumulative Impacts**

### **2.6.6.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for the cumulative impacts analysis is limited to locations that have clear sightlines to the built elements proposed as part of the project. Typically, the study area boundaries extend approximately 0.25 mile from the project perimeter. The study area for the cumulative visual impact analysis consists of the general area in the immediate vicinity of the pier, including those areas that can be viewed from, or have views of, the Pier Bridge.

**Existing Conditions within RSA:** The aesthetic appeal of the site is relatively high because of its shoreline location and its corresponding view of the Pacific Ocean as well as the historic character of specific features of the pier, including the distinctive pier sign, Carousel Park, and Loeff's Hippodrome (which houses the carousel). The pier is a popular site for beachgoers, tourists, and other recreational users.

### 2.6.6.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within RSA:** The proposed project would not result in a substantial adverse visual impact due to temporary construction effects. These conditions would be only temporary and would not detract substantially from the rich variety of appealing views or the visual character of the surrounding site. Once operational, the new bridge would become integrated with its surroundings, precisely like the current bridge.

**Current and Reasonably Foreseeable Projects within RSA:** Of the related projects, the vast majority are not within the viewshed of the proposed project. The closest projects to the Santa Monica Pier Bridge Replacement Project are those proposed along Ocean and Colorado Avenue, such as new residential buildings, affordable housing projects, and retail outlets. Construction of the related projects and the presence of construction equipment, workers, and trucks could result in adverse effects; however, these impacts would be temporary in nature and of short duration. The related projects would occur within the urban grid. The designs of these projects would be developed in accordance with City requirements, such as the Zoning Ordinance, and would be subject to design review by City staff or the Architectural Review Board. Therefore, Build Alternatives 1 and 2 (LPA) in combination with related projects would not have an adverse effect on the existing visual environment within the project viewshed. It is not expected that the build alternatives, when seen in the context of other nearby related projects, would block any key public views of existing visual resources.

**Cumulative Impact Potential:** Build Alternatives 1 and 2 (LPA) would not introduce new structural elements that would block existing public views of high visual quality. Improvements would be limited to the bridge replacement. Public views and visual resources would be minimally affected during construction because of the project's temporary nature. Once operational, Build Alternatives 1 and 2 (LPA) and design options would not remove, destroy, or substantially obstruct significant visual resources; compromise or diminish publicly valued views; result in substantial changes to the overall visual character or quality in the project area; conflict with local zoning or regulations governing scenic quality within an urbanized area; or introduce new sources of significant light and/or glare. None of the related projects in Table 2.1.1-1 would introduce substantial visual changes to viewsheds in the immediate vicinity of the pier bridge; therefore, the potential for cumulative impacts is minor. As a result, the potential for the proposed project to contribute to cumulative adverse impacts related to visual resources is considered low.

### 2.6.6.3 Avoidance, Minimization, and/or Mitigation Measures

The project would not contribute to a cumulatively considerable impact. No adverse impacts are anticipated to occur under Build Alternatives 1 and 2 (LPA). Therefore, no mitigation measures are required.

## 2.7 Cultural Resources

In the interim between the circulation of the draft EIR/EA late 2017, and the activity taken by the City to address public concerns and consider additional alternatives, two additional cultural resources were identified in the Area of Potential Effects (APE). Revisions to this section have been made to reflect the two build alternatives currently under consideration and the new information regarding cultural resources.

### 2.7.1 Regulatory Setting

The term “cultural resources,” as used in this document, refers to all “built environment” resources (structures, bridges, railroads, water conveyance systems, etc.), places of traditional or cultural importance, and archaeological sites (both prehistoric and historic), regardless of significance. Under federal and state laws, cultural resources that meet certain criteria of significance are referred to by various terms, including “historic properties,” “historic sites,” “historical resources,” and “tribal cultural resources.” Several federal, state, and local laws guide and address the preservation and protection of cultural resources, described below.

#### 2.7.1.1 Federal

##### National Historic Preservation Act

The National Historic Preservation Act (NHPA) of 1966, as amended, sets forth national policies and procedures for historic properties, defined as districts, sites, buildings, structures, and objects that are included in or eligible for listing in the National Register of Historic Places (NRHP). Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties and allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following regulations issued by the ACHP (36 CFR 800).

Four criteria have been established to determine if a resource is significant to American history, architecture, archaeology, engineering, or culture and should be listed on the NRHP. The criteria consider whether a resource:

- A. Is associated with events that have made a significant contribution to the broad patterns of our history;
- B. Is associated with the lives of persons significant in our past;
- C. Embodies the distinctive characteristics of a type, period, or method of construction or represent the work of a master or possess high artistic values or represent a significant and distinguishable entity whose components may lack individual distinction; and
- D. Yields, or may be likely to yield, information important in prehistory or history.

Districts, sites, buildings, structures, and objects of potential significance that are at least 50 years old must meet one or more of the above criteria to be eligible for listing in the NRHP. However, the NRHP does not prohibit the consideration of properties that are less than 50 years old, provided an exceptional contribution to the development of American history, architecture archeology, engineering, and culture can be clearly demonstrated under the NRHP criteria.

On January 1, 2014, the first amended Section 106 Programmatic Agreement (PA) among FHWA, the ACHP, the California State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans projects, both state and local, with FHWA involvement. The PA implements the ACHP's regulations, 36 CFR 800, streamlining the Section 106 process and delegating certain responsibilities to Caltrans. The FHWA's responsibilities under the PA have been assigned to Caltrans as part of the Surface Transportation Project Delivery Program (23 USC 327).

## Secretary of the Interior's Standards

The Secretary of the Interior's (SOI) Standards and Guidelines for the treatment of Historic Properties (Standards) were developed by the National Park Service (NPS) to provide guidance for managing historic properties. The Standards were introduced in 36 CFR Part 68, (1995) and are used by the NPS and SHPO in planning, undertaking, and supervising grant-assisted projects for preservation, rehabilitation, restoration and reconstruction.

While they are advisory and not regulatory practices, the Standards are considered essential in carrying out historic preservation responsibilities at the local, state, and Federal levels. Each approach (preservation, rehabilitation, restoration, and reconstruction) has a very specific definition as they relate to historic preservation and historic properties. Each provides the accepted standards for repair, replacement, alteration and maintenance of historic properties and historic materials.

For the Santa Monica Pier Bridge Replacement project, the SOI *Standards for Rehabilitation* are the most appropriate, as they offer guidance for associated new construction. As defined under 36 CFR Part 68.2, *Rehabilitation* is defined as "the act or process of making possible an efficient compatible use for a property through repair, alterations and additions while preserving those portions or features that convey its historical, cultural or architectural values."

The standards for Rehabilitation are:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old

in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

### **Section 4(f) of the U.S. Department of Transportation Act**

The Section 4(f) process as described in 49 U.S.C. 303 states that a special effort must be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. Section 4(f) regulates the “use” of land from historic site (see Appendix A for specific information regarding Section 4(f)).

#### **2.7.1.2 State**

##### **California Environmental Quality Act (CEQA)**

CEQA requires that lead agencies take into consideration the potential impacts of their project on historical resources and tribal cultural resources. CEQA Guidelines Section 15064.5(b) state that a project with an effect that may cause a substantial adverse change in the significance of a historical resource may have a significant effect on the environment. A substantial adverse change is defined as: physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings, resulting in material impairment of the historical resource (CEQA Guidelines Section 15064.5(b)(1)). This criterion underlies the evaluation of environmental impacts for most of the impact issues identified in the CEQA Environmental Checklist Form (Guidelines Appendix G).

A threshold of significance is an identifiable quantitative, qualitative, or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register (CRHR); or

- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register (CRHR) as determined by a lead agency for purposes of CEQA.

Per CEQA Guidelines Section 15126.4, where potentially significant environmental impacts have been identified in the EIR, feasible mitigation measures that would avoid or minimize the severity of those impacts are also identified. Mitigation of significant impacts must lessen or eliminate the physical impact that the project will have. Pursuant to CEQA, feasible mitigation measures must be implemented for all significant impacts. In this context, feasible is defined as capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors. A project that has been determined to conform with the Standards can generally be considered to be a project that will not cause a significant impact (14 CCR Section 15126.4(b)(1)).

### **California Register of Historical Resources**

CEQA requires the consideration of historical resources, tribal cultural resources, as well as “unique” archaeological resources. PRC Section 5024.1 establishes the California Register of Historical Resources (CRHR) and outlines the necessary criteria for a cultural resource to be considered eligible for listing in the CRHR:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- Has yielded, or may be likely to yield, information important in prehistory or history. The CRHR includes resources that are listed in, or determined eligible for listing in the NRHP, California Historical Landmarks numbered #770 and above, and California Points of Historical Interest. Resources listed in, or eligible for listing in the CRHR are considered “historical resources.”

PRC Section 5020.1(j) defines historical resources. This definition of “historical resource” is also found in Section 15064.5 of the CEQA guidelines.

PRC Section 21074(a) defines tribal cultural resources. Assembly Bill 52 (AB 52) added the term “tribal cultural resources” to CEQA in 2014. As defined, a tribal cultural resource is a



CRHR or local register eligible site, feature, place, cultural landscape, or object which has a cultural value to a California Native American tribe. Tribal cultural resources must also meet the definition of a historical resource.

PRC Section 21083.2. references unique archaeological resources.

Resources included in a local register of historical resources (pursuant to PRC Section 5020.1[k]) or identified as significant in a historical resources survey (i.e., meeting the criteria in PRC Section 5024.1[g]) also are presumed to be historical resources for the purposes of CEQA.

However, the fact that a resource has not been listed in, or determined eligible for listing in the CRHR, does not mean a lead agency can preclude that the resource is not an historical resource as defined in PRC Section 5020.1(j).

### **2.7.1.3 Local Policies and Regulations**

#### **Santa Monica Landmarks and Historic Districts Ordinance**

The Landmarks and Historic Districts Ordinance (Chapter 9.56 of the Santa Monica Municipal Code) was adopted by the City in 1976. The ordinance established the City's Landmarks Commission with the power to designate Landmarks, Structures of Merit, or Historic Districts and established criteria and procedures for designating these historic resources. Landmarks may include structures, natural features, or any type of improvement to a property that is found to have particular historic or architectural significance to the City. The City's six criteria for Landmark designation are:

1. It exemplifies, symbolizes, or manifests elements of the cultural, social, economic, political, or architectural history of the City.
2. It has aesthetic or artistic interest or value, or other noteworthy interest or value.
3. It is identified with historic personages or with important events in local, state, or national history.
4. It embodies distinguishing architectural characteristics valuable to a study of a period, style, method of construction, or the use of indigenous materials or craftsmanship, or is a unique or rare example of an architectural design, detail, or historical type valuable to such a study.
5. It is significant or a representative example of the work or product of a notable builder, designer, or architect.
6. It has a unique location, a singular physical characteristic, or is an established and familiar visual feature of a neighborhood, community, or the City.

An historic district is defined by the City as a geographic area or noncontiguous grouping of thematically related properties that may be designated a Historic District if the City finds such area meets one of the following criteria, outlined in the SMMC Section 9.56.100(B):

1. Any of the criteria identified in SMMC Section 9.56.100(A)(1) through (6).
2. It is a noncontiguous grouping of thematically related properties or a definable area possessing a concentration of historic, scenic or thematic sites, which contribute to each other and are unified aesthetically by plan, physical development or architectural quality.

3. It reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning.
4. It has a unique location, a singular physical characteristic, or is an established and familiar visual feature of a neighborhood, community or the City.

The ordinance requires a Certificate of Appropriateness for any alterations, restorations, construction, removal, relocation, or demolition, in whole or in part, of or to a Structure of Merit, Landmark, or Landmark Parcel, or to a building or structure within a Historic District. Certificates are issued by the Landmarks Commission or the City Council on appeal if a determination can be made in accordance with any of the criteria stated in the ordinance. Generally, the proposed work should not detrimentally change, destroy, or adversely affect any exterior features of a protected resource and should be compatible with the character of the resource.

Other sections of the ordinance include criteria for designating a historic district, requirements and exemptions for maintenance and repair of resources, provides for preservation incentives including waivers of zoning regulations and use of the California Historical Building Code.

### **Santa Monica General Plan and Historic Preservation Element**

The Historic Preservation Element defines the City's long-range vision for the protection of historic resources. As a supporting document for the City General Plan, it provides implementation strategies to achieve that vision through their incorporation into the General Plan's goals, objectives, and policies. As a guide for decision makers and community members, the Historic Preservation Element supplements the City's Landmarks and Historic Districts Ordinance. The last update in 2002 was prepared by PCR Services Corporation and Historic Resources Group.

### **Santa Monica Historical Resources Inventory**

Santa Monica Historical Resources Inventory. The HRI, last updated in 2018, is a database used by the City to identify properties of potential historic significance. Each property listed on the HRI has been evaluated based on a "windshield survey" conducted by preservation professionals using nationwide standards and criteria. The identification of a property on the HRI does not necessarily mean that the property is a designated historic resource. Designation is a separate process undertaken in accordance with the City's Landmark Ordinance. The HRI serves as a planning tool that assist City staff, officials, and the public in the identification and evaluation of potential historic and cultural resources.

### **Santa Monica Land Use Plan Update (LUP)**

The LUP Update, adopted in late 2018 by the City Council but not yet certified by the California Coastal Commission as a component of the Local Coastal Plan, analyzed and designated View Corridors and Vantage Points to be protected as community assets to assist policy makers when considering proposals on properties located within those viewsheds. Seven view corridors and five vantage points are designated in the LUP and subject to the Scenic View policies (Appendix K). Of these, four view corridors (Palisades Beach Road, Ocean Avenue, Ocean Front Walk,

Santa Monica Pier) and three vantage points (Colorado Esplanade, Main Street Bridge, Tongva Park) overlap with the project area.

### **Land Use and Circulation Element (LUCE)**

The LUCE was first adopted in 2010 (and last revised in 2020) and established 17 distinct land use designations in Santa Monica. The Pier is designated as being within the Oceanfront District. The LUCE envisions that the Oceanfront District serve as a local gathering place, and enhances the beach going experience with visitor-serving uses that support it as a regional, national, and international tourist destination. The LUCE document details how linkages between the Oceanfront and the City are strengthened through enhancement of east-west streets leading from the beach to Ocean Avenue, emphasizes the need to maintain public view corridors to the beach and ocean, and recommends the creation of beach parks north of the Pier to create flexible, open green spaces. Under this designation, development standards are established in order to enhance the Oceanfront District as an important visitor-serving destination and maintain the unique character and scale of the area, with attention centered on the landmark Santa Monica Pier as a prominent symbol of the City. The LUCE also identifies Goals and Policies to guide the associated land uses on and around the Pier.

### **Santa Monica Pier Design Guidelines (Pier Guidelines)**

Adopted in 1983, the Pier Guidelines were established as part of the Pier Restoration project to maintain the Pier's historic character. The document includes Hippodrome restoration notes from Raymond Girvagian, FAIA, historical architect. According to the recently published LUCE, "new construction or modifications to the Pier are subject to the adopted Pier Design Guidelines that set forth recommendations intended to guide change on the Santa Monica Pier in ways that are compatible with the Pier's overall character."

### **Pier Use and Access Study for Santa Monica Pier**

In spring 2015, the City of Santa Monica and the Santa Monica Pier Corporation commissioned a study to prepare a focused update to the 1988 "A New Era Pier Plan" which provided the original parameters for the restoration and revitalization of the Pier. The study is not intended to be a Master Plan, but a framework to help guide future decision-making for short-term and long-term enhancement and reinvestment. It is intended to build upon the vision and guiding principles established by the City.

#### **2.7.2 Affected Environment**

Information for this section is based largely on the following technical studies prepared for the proposed project and updated to reflect the new alternatives under consideration. These studies are incorporated by reference and are included as Appendix N to this Recirculated Draft EIR/EA document:

- Historic Property Survey Report (May 2017), Supplemental HPSR March 2022
- Historic Resources Evaluation Report (May 2017)
- Archaeological Survey Report (May 2017)

- Finding of No Adverse Effect without Standard Conditions (February 2022)

The APE for the project was established by ICF in 2014 in consultation with Caltrans. The Supplemental APE was established in consultation with Caprice “Kip” Harper, Professionally Qualified Staff (PQS) Principal Architectural Historian and PQS Principal Investigator for Prehistoric Archaeology, and Vin Kumar, Local Assistance Engineer, on May 4, 2020.

The Supplemental APE is the same as that previously established in consultation with the Principal Architectural Historian PQS and Project Manager/Local Assistance Engineer in October 2014 for the 2017 studies; there are no changes to the APE boundaries. The APE boundary extends from the intersection of Colorado and Ocean avenues in downtown Santa Monica to the western end of the Santa Monica Pier, which stands in the Pacific Ocean. It includes the bluffs above the beachfront at the entrance to the Pier Bridge from Ocean Avenue, Ocean Front Walk at the lowest ground level, and the raised pier deck that extends from Ocean Front Walk into the Pacific Ocean.

The Area of Direct Impact (ADI) encompasses all ground disturbance associated with the project. It includes staging areas, access alignments, and all other construction work areas; new footings would be constructed to a depth of 6 to 8 feet, with new concrete piles extending as deep as 80 feet. The maximum height of temporary construction includes the use of cranes and rigs reaching approximately 100 feet, while the maximum permanent height of construction would be 45 feet. The ADI also includes all areas where construction or implementation of the proposed project could result in indirect effects, including increased noise, vibration, or visual changes; changes to the setting associated with light and glare; and changes in use or access resulting from project construction. The ADI also takes into account changes in access or use that are expected to result from implementation of the new bridge.

Figure 2.7-1 shows the Supplemental APE for the proposed project, for both Section 106 and CEQA eligible properties.





Figure 2.7-1. Area of Potential Effects



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### 2.7.2.1 Study Methodology

A literature and records search was conducted by the South Central Coastal Information Center at California State University, Fullerton on July 23, 2014. The search included a review of all recorded archaeological sites within a 0.5-mile radius of the project site as well as a review of cultural resource reports on file. The 2014 records search identified 10 previous studies that included areas partially within the APE and 29 that included areas within the 0.5-mile buffer area. No archaeological sites or isolates have been identified within the project site or the 0.5-mile radius.

The overall footprint of the project, which provided the basis for the 0.5-mile radius of the 2014 literature and records search has not changed since that time; as a result, the APE boundaries have not changed. Interested parties contacted as part of the recirculated document did not provide any new information, nor did discussions with City of Santa Monica staff. Therefore an additional records search was not conducted for this supplemental technical report.

Staff also reviewed national, state, and local inventories of architectural and historic resources to determine the presence of and location proximate to the project of previously documented resources. In addition to the NRHP, sources consulted included the California Historical Landmarks list, California's Points of Historical Interest list, the CRHR, the Santa Monica General Plan Historic Preservation Element, the Santa Monica Historical Resources Inventory and Citywide Context Statement (updated 2018), and the Land Use and Circulation Element. Additional resources consulted in the process of compiling this report included the Santa Monica Public Library, the Santa Monica Department of Building and Safety, digital archives for the *Santa Monica Evening Outlook*, and the ProQuest digital archives for the *Los Angeles Times*.

On November 24, 2014, a letter, along with a U.S. Geological Survey (USGS) topographic map depicting the project site, was sent to the Native American Heritage Commission (NAHC). The letter asked the NAHC to search its Sacred Lands File to determine if sacred lands are present in the project area. The NAHC responded in writing on December 12, 2014, and indicated that there are no sacred lands in the project area. The NAHC also provided a list of eight local Native American groups and individuals. This information was forwarded to Caltrans District 7, which sent letters regarding the project to the Native American groups and individuals for consultation purposes. Caltrans initiated consultation with letters on January 22, 2015, and followed up with phone calls in March 2015. See Appendix N for all project-related Native American correspondence.

On November 12, 2014, a letter and map set were sent to the City of Santa Monica Landmarks Commission and the City of Santa Monica Environmental Review Section, agencies who would have had knowledge of or concerns regarding historic properties in the area. The letter requested information regarding any historic buildings, districts, sites, objects, or archeological sites of significance within the proposed project area. As of January 10, 2017, no responses addressing the proposed project were received.

With the decision to recirculate the EIR/EA, Caltrans requested that new letters and map sets be prepared and sent to the following organizations: City of Santa Monica Landmarks Commission, City of Santa Monica Cultural Affairs, Santa Monica Conservancy (SMC), Los Angeles Conservancy, Santa Monica History Museum, California Historic Route 66 Association,

National Historic Route 66 Federation, and the Route 66 Alliance. On May 13, 2020, this correspondence was submitted both electronically and through the mail to those groups, requesting information and input on the proposed project.

On May 21, 2020, SMC replied via email that the organization had concerns regarding the impacts on setting, views, spatial relationships, and other aspects of integrity of designated historic resources in the immediate vicinity of the project. SMC expressed concern that the alternatives did not include retrofitting the bridge, which would have the fewest adverse impacts on historic resources. A follow-up letter was received on June 25, 2020, which reiterated that SMC knew of no additional Section 106 properties in the APE besides Loeff's Hippodrome, the Santa Monica Pier Sign, and Palisades Park and requested to be a concurring party in the Section 106 process. This request was approved by Caltrans on April 5, 2021.

On March 11, 2021, a representative of SMC articulated to the City's consultant via telephone that the organization was concerned with the removal, storage, and reinstallation of the Santa Monica Pier Sign. On April 29, 2021, the board of SMC attended a presentation given by the City updating SMC on proposed refinements to the project. In a follow-up email, a representative from SMC commented that the organization felt the project was moving in a positive direction; the group's primary concern remains the position of the Pier Sign following the construction of the replacement bridge. SMC requested to see schematics of the relocation of the Pier Sign in relation to the roadway, which the City provided on September 29, 2021. The City provided those details to the SMC via email later that day. No further correspondence from SMC was received.

Each of the parties was again contacted via email, telephone, or a combination of both between March 11 and March 18, 2021. Only the Santa Monica History Museum responded, stating that its interest as an organization's focus is on materials preservation and less on the historic properties in the project APE. On April 7, 2021, Caltrans sent the Cultural Landscape Foundation (Attn: Charles A. Birnbaum) a letter and email requesting comments and information regarding the historic properties in the project APE and the proposed project alternatives, if any, and provided the group an opportunity to participate as a concurring party on the Section 106 process. No other responses were received as of December 15, 2021.

An archaeological survey of the project APE was conducted by professionally qualified staff archaeologist Michael Richards on November 26, 2014. No prehistoric or historic archaeological resources were identified as a result of survey within the project APE. Architectural field surveys of all properties within the project APE were conducted by professionally qualified staff senior architectural historian Jessica B. Feldman on October 14, 2014.

## **Environment**

The project area is situated on the western edge of the Los Angeles Basin in the city of Santa Monica, approximately 20 to 105 feet above mean sea level. The project area is currently developed with the existing Santa Monica Pier and State Beach, a parking lot and lifeguard station, and Pacific Coast Highway (State Route 1).

On top of the bluffs above the Pier and beach are Ocean and Colorado Avenues, along with built environments and Santa Monica Palisades Park. Vegetation consists of remnant sage scrub, palm trees, and grasses, with ornamental plants in the built and park areas.



Geology in the area consists of consolidated older Quaternary alluvium, primarily fan deposits derived from the Santa Monica Mountains to the north (URS Corporation 2006). These deposits in the bluffs are very likely more than 10,000 years old.

## **Ethnography**

The project site lies within the territory of the Gabrielino Native American people (Bean and Smith 1978). The Gabrielino are characterized as one of the most complex societies in native Southern California, second perhaps only to the Chumash, their coastal neighbors to the northwest. This complexity derives from their overall economic, ritual, and social organization (Bean and Smith 1978:538; Kroeber 1925:621).

The Gabrielino, an Uto-Aztecan (Shoshonean) group, may have entered the Los Angeles Basin as recently as 1500 B.P. In early protohistoric times, the Gabrielino occupied a large territory that included the entire Los Angeles Basin. This region encompassed the coast from Malibu to Aliso Creek, parts of the Santa Monica Mountains, the San Fernando Valley, the San Gabriel Valley, the San Bernardino Valley, the northern parts of the Santa Ana Mountains, and much of the middle to lower Santa Ana River. They also occupied the islands of Santa Catalina, San Clemente, and San Nicolas. Within this large territory were more than 50 residential communities, with populations ranging from 50 to 150 individuals. The Gabrielino had access to a broad and diverse resource base. This wealth of resources, coupled with an effective subsistence technology, well developed trade network, and ritual system, resulted in a society that was among one of the most materially wealthy and culturally sophisticated cultural groups in California at the time of contact.

## **Prehistory**

The prehistoric occupation of Southern California is divided chronologically into four temporal phases or horizons (Moratto 1984). Horizon I, or the Early Man Horizon, began at the first appearance of people in the region, approximately 12,000 years ago, and continued until about 5000 B.C. Although little is known about these people, it is assumed that they were semi-nomadic and subsisted primarily on game.

Horizon II, also known as the Millingstone Horizon or Encinitas Tradition, began around 5000 B.C. and continued until about 1500 B.C. The Millingstone Horizon is characterized by widespread use of milling stones (manos and metates) and core tools and few projectile points or bone and shell artifacts. This horizon appears to represent a diversification of subsistence activities and a more sedentary settlement pattern. Archaeological evidence suggests that hunting became less important and reliance on collecting shellfish and vegetal resources increased (Moratto 1984).

Horizon III, the Intermediate Horizon or Campbell Tradition, began around 1500 B.C. and continued until about A.D. 600-800. Horizon III is defined by a shift from the use of milling stones to increased use of mortar and pestle, indicating a greater reliance on acorns as a food source. Projectile points become more abundant and, together with faunal remains, indicate increased use of both land and sea mammals (Moratto 1984).

Horizon IV, the Late Horizon, which began around A.D. 600-800 and terminated with the arrival of Europeans, is characterized by dense populations; diversified hunting and gathering subsistence strategies, including intensive fishing and sea-mammal hunting; extensive trade networks; use of the bow and arrow; and a general cultural elaboration (Moratto 1984).

## History

Spanish occupation of California began in 1769 at San Diego. Mission San Gabriel was established in the Los Angeles Basin in 1771, about 35 miles east of the project site, and the Los Angeles Pueblo was established as a civilian settlement on September 4, 1781.

Mexico rebelled against Spain in 1810, and by 1821, Mexico, including California, achieved independence. A decree of secularization followed in 1834, and the once-thriving missions were abandoned. After secularization, large land grants were given to individuals. The northern section of Santa Monica once belonged to Rancho San Vicente y San Monica and Rancho Boca de Santa Monica, while the southwestern section of the city originally belonged to Rancho La Ballona.

In 1848, following the Mexican-American War, Mexico ceded California to the United States. Thereafter, development increased in the area. A few beachside homes were built in the vicinity, and the first lots in Santa Monica were sold on July 15, 1875. Residents voted to incorporate in 1886, and the Pacific Electric Railroad extended lines to Santa Monica in 1891.

When the Southern Pacific Railroad arrived in Los Angeles in 1889, a controversy erupted over where to locate a port for Los Angeles. The Southern Pacific preferred Santa Monica, while other interests preferred San Pedro Bay. In 1893, the Long Wharf was built at the north end of Santa Monica to accommodate large ships; this was dubbed Port Los Angeles. In 1897, the United States government selected San Pedro Bay for port development. Port Los Angeles fell into disuse and was eventually destroyed by inclement weather.

Adjacent to the Pier entrance is one of the oldest parks in Santa Monica – Palisades Park. In fact, the design of Palisades Park pre-dates the construction of the Santa Monica Pier. Originally known as Linda Vista Park, the site was a gift to the city from Senator John P. Jones and Mrs. Arcadia de Baker in 1892. The long linear park stretches fourteen blocks from the entrance to the Santa Monica Pier to the northwestern city limit, running along the high cliffs, or “palisades” that overlook the Santa Monica Bay. The design includes a network of paths for strolling and taking views of the ocean, extensive plantings, and built features such as a wood pergola and cobblestone gates.

In the first decades of the 20<sup>th</sup> century, amusement piers became enormously popular along Southern California’s coast. The extensive Pacific Electric Railroad network transported tourists from across Los Angeles to the coastal towns. There were five piers in Santa Monica alone. The Santa Monica Pier, built in 1909, is the last remaining amusement pier on the bay. The present Pier Bridge, connecting Colorado Avenue to the Pier, was built in 1939 (Feldman 2014).

Santa Monica rapidly expanded during the 1920s, with the population increasing from 15,000 to 32,000 by the end of the decade. Downtown saw a construction boom, with many important buildings going up. Santa Monica has continued to grow, with development there and in the adjacent city of Los Angeles merging to create an extensive urban area.

## The Santa Monica Pier<sup>1</sup>

### Santa Monica Municipal Pier and Loeff's Pleasure Pier to 1923

The “Santa Monica Pier” was originally constructed as two separate but adjacent piers, separately owned and operated. The first of these was the Municipal Pier, constructed between 1908-09, using an experimental concrete and steel construction process. Extending 1,000 feet into the Santa Monica Bay, the structure was promoted as the “largest concrete pier in the world.” The Pier’s role as a tourist attraction was supplemented by its municipal role in moving city sewage out to sea. The Municipal Pier would be reconstructed in 1921 using a traditional timber structure, widened, and extended to nearly 1,600 feet.

In 1915, construction began on a second pier structure immediately adjacent to the Santa Monica Municipal Pier. Loeff’s Pleasure Pier was designed by Charles I. D. Loeff, a well-known roller coaster builder, and his son Arthur. Loeff’s career began in Coney Island in 1876., after the turn of the twentieth century he worked primarily on the West Coast, locating his factory in Long Beach. It was due in part to the success of the Municipal Pier in attracting tourists to Santa Monica that prompted Loeff to erect his pier in the city.

After the completion of Loeff Pleasure Pier in 1916, Loeff began to erect a variety of remarkable attractions. The first was the Hippodrome, one of the largest such structures on the West Coast, constructed in 1916 to house an original Loeff Carousel. Located at the northeast corner of the pier, the large building dominated views of the pier with its eclectic Moorish-inspired architectural style and tall, prominent roofline. Designed to be viewed from the north, east, and south, historic images reveal unusual exterior ornament affixed to the facia on each of these elevations. Between each tower, three small domes were set partially out over the second floor windows on each visible side of the building. A tall open-air wire-frame onion dome sat atop the tent-like roof. The unusual and eye-catching design would have been visible from all directions. Historic images show how, originally, the entire pier deck immediately east of the building sloped down to meet Ocean Front Walk and, until 1939, a wide bridge level with the deck passed over Ocean Front Walk and aligned with the Municipal Pier adjacent to Loeff Pleasure Pier (now Newcomb Pier). In the same images, either side of Ocean Front Walk was initially populated with temporary stands and sheds offering goods and services to tourists and fishermen.

The Billiard Building, located immediately west of the Hippodrome, was completed in 1917. That same year Loeff opened a number of amusements rides, including a walkthrough fun house called “What Is It?,” a giant rotating swing ride known as the Aeroscope, and the Blue Streak roller coaster. Other pier amenities included picnic shelters, as well as an electric trolley that made the pier accessible from Venice to the south and downtown Los Angeles to the east.

After the original experimental concrete and steel pier construction failed around 1920, the pier was reconstructed using the traditional timber construction method that currently remains in place. At this time, the pier was widened and extended to nearly 1,600 feet.

The Loeff Pleasure Pier incorporated as a public corporation in 1917. After Charles’ death the following year, the Loeff family continued to operate and develop the site until 1923.

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<sup>1</sup> *Santa Monica Pier Access Improvements Project HRER*, August 2005.

A group of commercial buildings along Ocean Front Walk faces the pier, Loeff's Hippodrome, and Carousel Park. The oldest of these, the one-story brick masonry building at 1611 Ocean Front Walk, was constructed in 1917, shortly after the Hippodrome (historic images reveal its current front-facing gable is a later alteration). Three adjacent buildings followed: the two-story building at 1601 with a brick front façade and apartments on the upper floor in 1921; the two-story at 1605 with two bays topped by pointed parapet faux gables, built in 1924; and a one-story commercial building at 1615 also from 1924.

#### Santa Monica Pleasure Pier 1924 to 1940

The Loeffs sold their pier and in 1924, it was renamed the Santa Monica Pleasure Pier. Soon thereafter, the ornately decorated La Monica Ballroom opened on the Pier's west end. Billed as the largest ballroom in the world, it accommodated 5,000 patrons and quickly became one of the prime spots for big band entertainment in the Los Angeles area. With its Byzantine domes turrets and Persian motifs, the La Monica was one of the most prominent structures on the Pier. Other amenities included picnic shelters, as well as an electric trolley that made the Pier accessible from Venice to the south and downtown Los Angeles to the east.

During the 1920s and 30s, the Pier became one of the primary public gathering places for the region and drew thousands of visitors traveling via Pacific Electric Red Cars from downtown Los Angeles. By the late 1930s, however, the Pier had become less popular.

To attract new customers the Santa Monica Pier Businessmen's Association added new features, including a bridge and brightly lit neon sign.

The Pier Bridge was built in 1939 as part of a Public Works Administration project to improve traffic conditions along Ocean Avenue and the Coast Highway near the Santa Monica Pier. The bridge linked downtown Santa Monica above the bluffs to the Pier, descending in elevation to the beach and crossing over the roadway that would become known as Pacific Coast Highway. The bridge was constructed to alleviate traffic congestion that occurred as a result of economic development of the City, the local building boom and subsequent local population boom, and the ongoing popularity of the attractions on the Pier. The project was financed jointly by the State of California, Los Angeles County, and the City of Santa Monica. With the introduction of the new and taller Pier Bridge in 1939, cars and pedestrians no longer arrived at the foot of Loeff's Hippodrome, but instead at a point nearly 100 feet further west along the Pier.

A painted metal and neon Sign was installed over the eastern end of the Pier Bridge in 1940 to direct visitors down the newly erected bridge. Designed as an archway spanning the road, the sign read "Santa Monica" at the top with the words "Yacht Harbor- Sport Fishing -Boating" below and in smaller lettering at the bottom the word "cafes." The sign was engineered, constructed, and installed by Fred Lehman of the Pan Pacific Neon Company. This company designed many of the prominent neon signs in Southern California, including signs for the Pan Pacific Auditorium in Los Angeles, Henshey's Department Store in Santa Monica, and the Sea Lion in Malibu. Soon after the sign was installed, a fishing boat on a trailer crashed into the sign and destroyed a section. The Pan Pacific Company was hired to repair the sign. World War II began the next year, and the sign was not lit again until after V-J day.

The Pier Sign quickly became an iconic symbol of the Pier and one of the best-known neon signs in Southern California. It has also been celebrated as the sign marking the western end of Route 66.

#### Santa Monica Pier 1940 to present

The Santa Monica Pier continued to draw large crowds through World War II. In 1951, the City of Santa Monica acquired the Pleasure Pier, which had been privately owned and operated since the 1920s and leased it to the Newcomb family. The Pier was renamed the Newcomb Pier and several new recreational and amusement attractions were added. However, its popularity began to decline in the 1950s and 1960s as the Los Angeles freeway system made more distant competing attractions easily accessible, including Knott's Berry Farm (1940) and Disneyland (1955).

In the late 1950s and 1960s, thousands of spectators were lured to the Santa Monica waterfront not by the Pier, but an attraction of a different sport. Visitors came to witness what would become "the birthplace of the fitness movement." What began as a small gathering of gymnasts, stuntmen, circus performers, and body builders grew into a major attraction called "Muscle Beach." Athletic men and women formed towers and pyramids, performed acrobatics, and competed in feats of strength and agility. The activities at Muscle Beach inspired a generation of people interested in physical fitness, a development that continues to grow in importance both locally and nationally.

Photos reveal that sometime in the early 1970s, the sloped section of the deck in front of Looft's Hippodrome was fenced off, likely due to deteriorated conditions correlating with an overall decline in the Pier's popularity and use. By the early 1970s, the Pier was suffering financially and this section of the Pier deck was demolished entirely. The City developed a plan to demolish the Pier, which was met with great public resistance. The subsequent public debate about the future of the Pier resulted in the creation of a Pier Preservation Ordinance. In 1976, the Pier and Looft's Hippodrome were designated City of Santa Monica Landmarks. In 1981, the Pier Task Force was formed a non-profit, public benefit entity to oversee restoration, events and programming, and development of the Pier, later renamed the Santa Monica Pier Restoration Corporation (PRC). The following year The Santa Monica PRC issued the "Santa Monica Pier Guidelines," and rehabilitation work began on Looft's Hippodrome and carousel.

In 1983, the City held a competition for the design of an overall master plan and new pedestrian entrance along Ocean Front Walk. Moore Ruble Yudel architects and Campbell & Campbell landscape architects were selected and their design for Carousel Park was completed in 1986. The new park transformed the large deteriorated sloped deck area in front of Looft's Hippodrome by extending the Pier deck easterly by approximately 40 feet. This new area has primarily functioned as a generous public seating area with full views of Looft's Hippodrome and the carousel inside and aquarium use below. It also introduced wood-plank seating, observation pavilions, a children's playground, and a handicap accessible ramp. A small, grassed area and groups of trees intentionally references Palisades Park on the adjacent bluffs. Despite the height of the bridge immediately adjacent, the deck extension and new trees maintain the visual relationships between Looft's Hippodrome and the historic buildings across Ocean Front Walk. These features characterize the present-day immediate setting of Looft's Hippodrome. In 2018, SMC and Cultural Landscape Foundation successfully nominated Carousel Park as a City Landmark.

Looff's Hippodrome was designated a National Historic Landmark in 1987. In 1988, Santa Monica's City Council adopted the Santa Monica Pier Development Program under which a new concrete substructure was added beneath the Pier to increase the structure's stability and resistance to severe storm events. A number of retail, food, and entertainment establishments were added on the Pier, including the Pacific Park amusement park, which opened in 1996. Today, it is the only remaining Southern California recreational Pier that provides an amusement park with free entrance. Owned and operated by the City with oversight by the Santa Monica Pier Corporation, the Pier draws approximately eight million visitors each year from the Los Angeles region and beyond. Current uses include the carousel housed in Looff's Hippodrome, Pacific Park's amusement rides and games, a penny arcade, a variety of food establishments, a trapeze school, an aquarium, beach oriented retail shops, public restrooms, a Santa Monica Police Department sub-station, a parking lot, and a Harbor Office. In 2015, the Santa Monica PRC agency was formally renamed the Santa Monica Pier Corporation (SMPC), signifying that "restoration" had been largely completed, and shifting focus toward the Pier's future. That same year, the City and SMPC prepared the Pier Access and Use Study to provide a conceptual framework to support future planning and decision-making efforts related to reconfiguring and establishing additional activities on the Pier. The study's primary recommendations were to reduce Pier parking to allow for more public programming, improve access for all users, and diversify activities and uses on the Pier including the strategic placement of new buildings and attractions. The study also laid out a vision for future redevelopment of the Pier structure.

A major renovation to Palisades Park, completed in 1994, introduced new park furniture, amenities, access improvements, new plantings including drought tolerant varieties, and updated public restrooms. In 2010, the bluffs were reinforced through a stabilization project to address erosion resulting from the park's precarious location atop the vertical bluff along Pacific Coast Highway. In 2015, the City undertook efforts to further stabilize the area as part of its work to reinforce, widen, and seismically strengthen the California Incline.

In 2016 the new Colorado Esplanade project was complete, which transformed Colorado Avenue into a pedestrian-enhanced street, lined with active uses, street furnishings, and street trees with new pedestrian priority intersections at Colorado and Ocean Avenues where the Esplanade meets the Santa Monica Pier Bridge approach and the south entrance to Palisades Park.

### **2.7.2.2 Study/Survey Findings and Conclusions**

In accordance with Section 106 requirements regarding the identification of historic properties (36 CFR Section 800.4), Jessica B. Feldman, ICF architectural historian, surveyed the project area on October 14, 2014. Photographs were taken with a digital camera, and general field notes were compiled. This information was used to determine the scope of the project and the proposed APE. The APE for the project was established in consultation with Kelly Ewing-Toledo, principal architectural historian, PQS, and Hamid Aghasharif, project manager/local assistance engineer, on October 13, 2014.

In 2014, 13 properties were surveyed for the Historical Resources Evaluation Report. Three were previously listed in or determined eligible for the NRHP; ten other properties are considered historical resources for purposes of CEQA.

Jesse Lattig, ICF architectural historian, re-surveyed the project area in August 2020 and again digital photographs were taken and revised field notes compiled to inform the APE and impacts analysis. Notable recent changes visible in the images are the completed rehabilitation of the landmark building at 1601 Ocean Front Walk and the rehabilitation work underway on the building at 1605 Ocean Front Walk. The APE now includes two additional historical resources identified since the draft EIR/EA document was released in 2017: Carousel Park and the potential Santa Monica Pier Historic District. The revised APE was established in consultation with Caprice “Kip” Harper, principal architectural historian, PQS, in May 2020.



**View west toward Pier from east end of Bridge. Looff's Hippodrome is visible at middle left.**



**View west toward Pier from east end of Bridge. Looff's Hippodrome is visible at middle left.**





**View south from Palisades Park toward Bridge and Pier.**



**View south toward Bridge and Pier from North Lot 1 parking.**





**View west from Colorado Avenue toward east Bridge approach with Pier Sign.**



**View south from Palisades Park toward Bridge. Looff's Hippodrome is visible at middle right.**





**View east from Pier deck with Pier Sign in background.**



**View north toward Bridge from the Pier deck in front of Loeff's Hippodrome.**

## Properties Considered Cultural Resources Under NEPA

Properties listed or determined eligible for listing in the NRHP and considered a cultural resource under NEPA include the following.

### *Palisades Park*

Palisades Park (APE Map Reference #1), at 1415 Ocean Avenue in the City of Santa Monica, is a long, linear public park along the west side of Ocean Avenue overlooking the oceanfront and Pier. A small portion of the southernmost end of the Park is in the project APE. The Park was determined eligible for listing in the NRHP at the local level under Criterion A in 1994 (as confirmed by the SHPO in a 2007 letter). A 1998 evaluation of the Park (Historic Resources Group 1998) subsequently also concluded it is eligible for NRHP listing at the local level under Criterion A as the oldest park in Santa Monica that has continuously served as a public park since its inception, with a period of significance of 1892 to 1944. The Park is listed in the CRHR and is a designated landmark under the City's Landmarks Ordinance.

The Park is owned and operated by the City. Its boundaries are shown in the assessor's parcel lines. The Park sits on a plateau atop natural palisades that rise with a near-vertical face more than 140 feet above Pacific Coast Highway. The proportionally narrow strip of land that the Park inhabits between the top edge of the palisades and Ocean Avenue extends 15 blocks (approximately 1.5 miles) from the northern City boundary near San Vicente Boulevard and Adelaide Drive down to the intersection of Colorado Avenue and Ocean Avenue on the south. At its southern end, the Park's entrance lies north of and adjacent to the Pier Sign and the existing pedestrian approach to the Pier Bridge from Ocean Avenue. The Park's boundary at this location ends where it meets the right-of-way of the Pier Bridge, which extends approximately 40 feet from the north side of the bridge structure. Presently, this 40-foot-wide area next to the Pier Bridge entrance is finished with brick pavers, planted with four palm trees, and connects to two existing Park footpaths and the sidewalk along Ocean Avenue. As a result, this area has the appearance of being within the Park, but is outside the legal boundaries of the Park.

The property's character-defining features include multiple historic objects and recreational amenities in addition to natural and designed landscape features throughout the 1.5-mile-long Park. Primary contributing features located within the project APE include:

- The paved and unpaved footpaths
- One of two cannons in the Park, set in the center of a circular plaza
- The historic lamp posts
- The views toward the oceanfront and within the Park
- Contributing plantings in this area, including mature Canary Island date palms planted during the 1900s located north of the cannon

### *Santa Monica Pier Sign*

The Pier Sign (APE Map Reference #2) is near the intersection of Colorado Avenue/Ocean Avenue in Santa Monica. A 1996 evaluation of the Pier Sign concluded that it is eligible at the local level for listing in the NRHP under the themes of Commercial Signage and Recreation,

with a period of significance of 1920 to 1944.<sup>2</sup> It is significant under NRHP Criterion A for “its strong association with the Santa Monica Pier” and under NRHP Criterion C as “one of the finest existing examples of signage from the neon era... The variety of color, shaping of the tubing, and composition of the Santa Monica Pier Sign as a whole make the sign a highly successful expression of neon art” (Historic Resources Group 1996). Under Criterion C, the Pier Sign is also significant as the only known extant example of the Pan Pacific Neon Sign Company, which was responsible for important neon sign projects including Pacific Auditorium in Los Angeles, Henshey’s Department Store in Santa Monica, and the Sea Lion in Malibu.<sup>3</sup> Based on a 2008 evaluation (California State Parks 2021), the Pier Sign is listed in the Built Environment Resources Directory published by the SHPO with a status code of 2S2, indicating it is an “individual property determined eligible for [NRHP] by a consensus through Section 106 process.” The boundaries are the Pier Sign’s footprint.

The City’s Landmark Designation notes that “[t]he Sign was installed in 1941 in response to the Colorado Avenue Viaduct transportation improvement project as a way of retaining identity for Pier businesses and activities that were impacted by related construction activities. Its wording reflects popular tourist activities and destinations of the era (sport fishing, boating and cafes) found on the Pier or associated with the yacht harbor that was created with the earlier construction of a breakwater in 1934” (City of Santa Monica 2012).

The free-standing Pier Sign is approximately 25 feet high at its peak and 34 feet wide between posts, and spans the width of the current Pier Bridge. The Pier Sign’s raceway and metal cage are held up by a steel truss support structure painted blue and designed and conceived as a unit with the Pier Sign.

The Pier Sign reads “SANTA MONICA” across a crown-shaped extension above the main raceway that announces “YACHT HARBOR” in pale bluish-white neon above “SPORT FISHING – BOATING” in green neon with stars between words, and “cafes” in yellow neon below. The lettering is in a Streamline Moderne style in reference to the nautical character of the area. The arched metal sign raceway is painted blue, white, and gold. The arch is framed by a simplified classical column motif at both sides, completing the symmetry of the overall design.

Character-defining features of the Pier Sign are its:

- Free-standing symmetrical arch form with a stylized crown and simplified classical column motif on either side
- Painted metal arched raceway and cage hung on an arched steel box truss frame connected to steel channel columns at either side with an inside width of 34 feet 4 inches
- Wording relating to the Pier amenities
- Neon tube lettering and colors

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<sup>2</sup> This period of significance is erroneous because the sign was not constructed until 1940 and not dedicated until 1941. A more appropriate period of significance would be 1941, the year of its dedication.

<sup>3</sup> This evaluation notes that it was prepared in the context of a Section 106 review but does not identify the relevant federal agency. The status of SHPO concurrence for this evaluation is unknown.

Non-contributing elements include the new location of the Pier Sign and its placement on non-original supports.

Vandals damaged the Pier Sign around 1983, at which time damaged neon tubing was repaired. Since its installation, only the tubing and wiring have been replaced. The Pier Sign retains all of its other original materials and its original design. The Pier Sign is in good condition and does not appear to have had any notable alterations beyond those described above.

### *Loeff's Hippodrome*

Loeff's Hippodrome (APE Map Reference #10), at 276 Santa Monica Pier, was built in 1916 and sits at the east end of the Pier, where it houses a carousel (merry-go-round). Loeff's Hippodrome sits immediately south of where the Pier Bridge terminates on the Municipal Pier. It is a two-story, stucco-clad, wood-frame building approximately 100 feet long on each side and approximately 75 feet tall at its roof peak.

The City completed a substantial rehabilitation of Loeff's Hippodrome in 1984, at which time the National Park Service nominated the property as an NHL under the Recreation theme as both a rare building type designed to house a carousel and as the most intact element of the former Loeff Pleasure Pier. The Secretary of the Interior granted the building NHL status on February 27, 1987, which automatically placed it in the NRHP in 1988 as nationally significant under Criterion A for its association with early 20<sup>th</sup> century amusement activities and the amusement piers along the Pacific Ocean. The NHL nomination defines the resource boundaries as the building's footprint and assigns a period of significance from 1900–1924.

Exterior character-defining features of Loeff's Hippodrome include:

- Its location on Loeff's Pleasure Pier abutting the Municipal Pier
- Its square plan and distinctive tent-shaped roof
- Its octagonal corner towers
- The seven bays between the corner towers each with an arched opening on the lower level and paired arched windows above
- The building's continuous original use to house a carousel

According to the NHL nomination, the building's tall, arched, arcade-like openings at the ground level on all sides that allow generous views into the interior were originally open. The NHL nomination notes that these ground floor openings "were closed at an unknown date to limit traffic" and now feature large double-hung windows with 3-over-2 divided lites in each sash beneath an arched transom window with sunburst divided lites.

Between the corner towers, the second-floor windows consist of joined pairs of arched double-hung windows centered above each ground-floor arched opening. On the octagonal corner towers, the second story arched windows sit below third-story pointed-arch windows with divided lites, the pointed tops of which nearly reach the roof cornice.

The NHL nomination notes that "over the second, fourth, and six[th] bays on each side decorative semi-domes or finials were originally positioned." Presently the only remaining

components of these original features are shallow, three-sided bump-outs of the cornice, the contour of which is mirrored by an identical belt course between the first and second floors. When and why these large semi-dome finials were removed or by whom is not known; they are no longer present in photos after 1936. Other missing exterior ornament that had been present during the period of significance includes the onion-shaped metal frame finial atop the roof peak and the row of narrow, flat, pointed crenelations that crowned each corner tower. Both the south and west walls each have an exterior non-original metal stair leading to the second floor.

In the building's interior, the primary character-defining features are the building's wood-frame structural system with exposed wood beams converging at the peak and the central open space below the peak where the carousel operates.

The City completed a substantial rehabilitation of Loeff's Hippodrome in the 1980s, at which time the building's stucco exterior was replaced. The current exterior and interior paint schemes date from this campaign and are not original.

As part of the Carousel Park project installed in 1986, the Pier deck in front of the building's east elevation was extended approximately 40 feet easterly and a new aquarium space was introduced below. At the same time, a new concrete substructure was introduced under the two adjacent piers to resist severe storm events.

The building's eclectic roof form, octagonal corner towers, and fenestration pattern are primary, salient features that are highly visible from multiple vantage points north, east, and south of the Pier. At the time of its construction in 1916, Loeff's Hippodrome was the first amusement ride installed on the Loeff Pleasure Pier and the building's unusual exterior features across all four sides reflect its entertainment-oriented use, attention-grabbing design, and visibility from all sides.

Non-contributing elements include the 1922 Philadelphia Toboggan Company carousel that replaced the original Loeff carousel in 1947, as well as interior railings and benches.

Since the time of its construction, the building has been surrounded by sources of constant vibrations due to its recreational nature and location above the ocean waves. Loeff's Hippodrome has always housed an operational carousel while the Blue Streak Racer rollercoaster operated south of Loeff's Hippodrome from 1917 until 1934. At different times, other small-scale amusement rides have operated on the east side of the building as well. Other structures in the vicinity of Loeff's Hippodrome have been constructed and demolished including construction of the massive La Monica Ballroom on the Pier in 1924 and its demolition in 1963. The Pier has also accommodated automobiles for nearly all of its existence with parking located on the Pier deck south and west of Loeff's Hippodrome, as it is today. Vehicle drive onto the Pier deck from the Bridge approximately 25 feet north of Loeff's Hippodrome from where they travel across the Pier deck to the parking areas, further contributing to a dynamic environment of constant noise and vibration.

### Properties Considered Historical Resources Under CEQA

Properties in the APE considered historical resources under CEQA (Figure 2.7-1, Area of Potential Effect) include the three properties described above (Palisades Park, Santa Monica Pier Sign, Loeff's Hippodrome) in addition to those described below.



*Santa Monica Pier*

The Santa Monica Pier (APE Map Reference #12) on Colorado Avenue south of Ocean Avenue is one of the premier tourist destinations in Santa Monica and the Los Angeles region. The Pier was designated a City of Santa Monica Landmark in 1976. According to its Landmark designation, the pier exemplifies, symbolizes, and manifests elements of the cultural and social history of the city in that it has been utilized as a social and recreational center for Santa Monica from its conception. The Santa Monica Pier is considered a historical resource for the purposes of CEQA, as defined in Section 15064.5 (a)(2). It consists of two attached but separate Pier structures: the long narrow Municipal Pier (1909) and the adjacent rectangular Loeffl Pleasure Pier (1916) to the south. Both extend from Ocean Front Walk on the east out over the Pacific Ocean to the west. The eastern edge of Loeffl Pleasure Pier along Ocean Front Walk was altered with the introduction of Carousel Park as part of the 1980s Pier rehabilitation project. Aside from Loeffl's Hippodrome and the Billiards Building, much of Newcomb Pier is dedicated to parking. To the south of the Pier is public beachfront. A large asphalt parking lot dominates its northern side. The boundaries are the structure's footprint, which includes both Pier segments. The period of significance is 1908 to 1919. Contributing features include its location, wood planks, lights, and associated buildings. Noncontributing elements include alterations to its original buildings and new construction.

Current uses across the entire Pier include the carousel housed in Loeffl's Hippodrome; Pacific Park's amusement rides and games; a penny arcade; a variety of food establishments; a trapeze school; the aquarium; and small scale retail. Although portions of the municipal Pier have been repaired and rebuilt over its lifetime due to storm damage, it retains its open setting and beachfront location, wood construction, light standards, and associated buildings as character-defining features.

*Ocean Front Walk Landmark Parcel*

The Ocean Front Walk Landmark Parcel was designated a City of Santa Monica Landmark in 2016 in order to preserve, maintain, protect, and safeguard the grouping of five extant buildings within the parcel, described below.

- 1601–1603 Ocean Front Walk (APE Map Reference #4) was designated a City of Santa Monica landmark in 2016. It is a two-story brick masonry building constructed in 1921 and exemplifies elements of the cultural, social, tourism, and economic history of the City of Santa Monica illustrated by its role as a commercial property adjacent to the Santa Monica Pier. This property was also designated part of a landmark parcel in order to preserve, maintain, protect, and safeguard the grouping of landmark buildings. The period of significance is 1921 to 1955. Its character-defining features are its setting directly across from the Pier along Ocean Front Walk including its westward orientation; its two-story height; brick cladding and parapet flat roof; and original windows and fenestration pattern on the second floor of the north and west elevations.
- 1605–1609 Ocean Front Walk (APE Map Reference #5) is a two-story commercial building with retail on the first floor and a former hotel and apartments on the second floor. It was constructed in 1924. According to city directories, this property has consistently been

occupied by the Overlook Hotel and Apartments since its incarnation, in addition to other retail uses, catering to the droves of tourists drawn to the Looff Pier. The subject property's location and uses exemplify its contribution to the social and economic history of the City, specifically the development of South Beach and the amusement tourism economy. This property was designated a City of Santa Monica landmark in 2016 and simultaneously designated part of a landmark parcel in order to preserve, maintain, protect, and safeguard the grouping of landmark buildings. The period of significance is 1924 to 1955. Its character-defining features are its setting directly across from the Pier, along Ocean Front Walk, and westward orientation; its two-story massing; low pitch roof and false front roofline on the west and east elevations; its fenestration pattern and tripartite windows on the second story of the west elevation; and its stucco cladding. At the time of this evaluation, the property was under major rehabilitation to remedy extensive fire damage.

- 1611–1613 Ocean Front Walk (APE Map Reference #6) is a one-story brick masonry building with Greek temple motif completed in 1917. The oldest of the group of buildings on this parcel, it is most closely associated with the Pier and its developer, Charles Looff. Over its lifetime the property has housed a series of uses including a fish market, a restaurant, a shooting range, and variety shop. The subject property's location and uses exemplify its contribution to the social and economic history of the city, specifically the development of South Beach and the amusement tourism economy. The building was designated a City of Santa Monica landmark in 2016 and simultaneously designated part of a landmark parcel in order to preserve, maintain, protect, and safeguard the grouping of landmark buildings. The period of significance is 1917 to 1955. Its character-defining features are its setting directly across from the Pier, along Ocean Front Walk, and westward orientation; its one-story massing; brick construction; open storefront along the west elevation with Greek-revival details (entablature, cornice, engaged pilasters and pediment); and stepped parapet wall on its east elevation.
- 1615 Ocean Front Walk (APE Map Reference #7) is not individually designated but sits upon of a landmark parcel designated in 2016 in order to preserve, maintain, protect, and safeguard its grouping of landmark buildings.
- 1619 Ocean Front Walk (APE Map Reference #8) is not individually designated but sits upon of a landmark parcel designated in 2016 in order to preserve, maintain, protect, and safeguard its grouping of landmark buildings.

#### *Carousel Park*

Carousel Park (APE Map Reference #9) is a public park located at the southeast corner of the Pier that serves as an entrance to the elevated Pier deck from Ocean Front Walk. It was completed in 1986 as a component of the Santa Monica Pier Restoration master plan project. Park designers were Moore Ruble Yudel architects and Campbell & Campbell landscape architects. Considered a modest example of Postmodern design, Carousel Park was designated a City Landmark in October 2018 under local landmark criteria A.1, A.2, A.4, A.5, and A.6 of SMMC Section 9.56.100. Its period of significance is 1983-1986.

The generally “L” shaped parcel encompasses an ensemble of public open space amenities that serve as a continuation of the Pier’s recreational nature while also creating a pedestrian entrance and activating the space between the properties along Ocean Front Walk and the Pier.

Landscaping features soften the transition between the street-like character of Ocean Front Walk, the raised Pier deck, and the imposing mass of the Pier Bridge. The arcade-like exterior walls of the aquarium and the easterly extension of the original Pier deck above it fall within the Park’s boundaries but are not considered character-defining features. The majority of Carousel Park’s character-defining features are concentrated in the southern portion.

Character-defining features of Carousel Park include:

- Location at the east end of the Pier and terraced topography
- Combination of softscape and hardscape features, variety of circulation features
- The octagonal-shaped stepped public plaza space, which echoes the octagonal corner towers of the adjacent Looff’s Hippodrome
- Amphitheater seating and open-air pavilions along the south side
- Along Ocean Front Walk, poured-in-place concrete light standards, concrete half-walls leading to the top of the stairs flanked by over-sized seahorse figures
- A nautical-themed children’s play area with interactive sailing ship and sea dragon sculptures within a sandbox surrounded by green turf
- A series of wood plank and concrete steps and walkways
- A pedestrian access ramp and railings
- Open-air metal-frame observation pavilions
- Material palette of concrete, cast stone, wood planks, metal, sand and river rock, tile, and glass
- Landscape elements of palm trees, Australian tea trees, and green turf

#### *Santa Monica Pier Historic District*

The Santa Monica Pier Historic District (APE Map Reference # 11) was found eligible for listing in the CRHR and for local City of Santa Monica historic district designation in November 2018 by Ostashay & Associates Consulting.<sup>4</sup> The potential district survey identified ten resources within the potential district’s boundaries, nine of which are contributors:

- Santa Monica Pier Sign
- Santa Monica Pier Bridge (known historically as the Colorado Avenue Viaduct)
- Santa Monica Pier
- Looff’s Hippodrome
- 1601-1613 Ocean Front Walk commercial buildings (three individual buildings)

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<sup>4</sup> Ostashay & Associates Consulting. 2018. *City of Santa Monica Pier District Landmark Assessment*. November.

- 1615-1619 Ocean Front Walk parcels (two separate parcels)

One resource within the potential district's boundaries (Carousel Park, 1986) is a non-contributor because it falls outside the district's period of significance (1909-1955).

Despite some loss of integrity, Ostashay & Associates concluded that the contributing resources represent a collection of early and rare resources related to the early tourist, recreational, social, and economic history of Santa Monica, and reflect a particular period, early construction methods and craftsmanship associated with early Pleasure Pier and arcade development and the potential district meets local landmark criteria A.1, A.4, A.6, B.1, B.2, B.3, B.4 of SMMC Section 9.56.100. Ostashay & Associates identified character-defining features in their potential district survey as:

- Topography (elevated bluff, gradient slope to sea level, flat at beach-level and boardwalk, elevated Pier deck and viaduct)
- Circulation and land use pattern features (vehicular and pedestrian walkways, roadways, stairs and steps, viaduct/bridge, streetscape, sandy beachfront)
- Location, lot sizes and shapes, resource placement and uniformity of building setbacks, interrelated association of district features and associated contributors
- Views, view corridors, and visibility (to and from the district and associated contributors from Ocean Front Walk, Palisades Park bluff vantage points, beachfront, and from the Pacific Ocean/Santa Monica Bay)
- Setting and Feeling (general outdoor and indoor recreation, social, commercial Pleasure Pier, beach- and ocean-oriented environment)
- Materials, design, form, massing, scale and proportion, spatial relationships, and heights (i.e. physical elements of district and contributors combined during the period significance)

#### *Los Angeles County Lifeguard Headquarters*

The lifeguard headquarters building is (APE Map Reference #13) is located at 1642 Ocean Front Walk. The City's 2018 HRI identified the property as potentially eligible for local City of Santa Monica Landmark listing only and ineligible for CRHR or NRHP listing. The building is a one-story masonry building with a second-story observation tower and enclosed interior courtyard designed in the Modern Style by Welton Becket and Associates in 1958. The vehicular entrance is capped by a repeated barrel vaulted roof and the feature is repeated above the second story. The building is approximately 100 feet south of the Pier and is setback approximately 80 feet from Ocean Front Walk.

The following properties are not historical resources under CEQA, per State CEQA Guidelines Section 15064.5, because they do not meet the CRHR criteria outlined in PRC Section 5024.1, are not designated as local landmarks, or are designated with California Office of Historic Preservation Status Code 6Y:

- Hot Dog on a Stick, located at 1633 Ocean Front Walk;
- Billiard Building, located at 250–268 Santa Monica Pier.

### 2.7.3 Environmental Consequences

The potential for the proposed project to affect cultural resources is based on information in the May 2017 Historic Property Survey Report (HPSR), and the Supplemental HPSR (March 2022) and Finding of No Adverse Effect without Standard Conditions (FNAE; February 2022), for the project and the analyses in other sections of this recirculated EIR/EA. Caltrans, pursuant to the Section 106 Programmatic Agreement Stipulation IX.B, has determined that there are historic properties in the APE that will be affected by the undertaking. Caltrans expects to send this finding to SHPO for concurrence in September 2022.

The FNAE evaluated effects for three historic properties identified in an updated Supplemental HRER (ICF, 2017): Loeff's Hippodrome, Palisades Park, and the Santa Monica Pier Sign. In the FNAE, Caltrans concluded the Project would have No Adverse Effect on Palisades Park and Loeff's Hippodrome and that effects to the Pier Sign would be not adverse with fulfillment of Conditions for Approval. Under both build alternatives, the City proposes to temporarily remove the Pier Sign during the construction phase. To ensure the process to disassemble, transport, store, perform repairs on, and reinstall the Pier Sign does not result in an adverse effect due to physical damage to character-defining features, the FNAE stipulates conditions to implement a Pier Sign Preservation Plan. The Plan outlines best practices and treatment recommendations for working with historic neon signs and requires the City's Contractor to hire a Historic Preservation Architect to examine and evaluate the Pier Sign and provide specifications for Standards-compliant work. In addition, the FNAE further conditioned the project to require participation by Caltrans PQS (or an architectural historian who meets the Principal Architectural Historian PQS qualifications) in reviewing Project plans and construction monitoring.

This document further evaluates potential project impacts within the following categories, as defined in CEQA Guidelines, Appendix G Checklist:

- Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, listing in the California Register; or
- Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to Section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of Section 5024.1(g) of the PRC, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for listing in the California Register as determined by a lead agency for purposes of CEQA.

The following section summarizes the impact analysis for each alternative. Table 2.7-1 provides a summary of all impact conclusions discussed herein.

There are historic properties protected by Section 4(f) of the Department of Transportation Act of 1966 within the project vicinity. The proposed project would result in a "use" of those properties as defined by Section 4(f). Please see additional details in Appendix A.

### **2.7.3.1 No Build Alternative**

Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. The use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not improve ADA standards. As time goes on, these compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

### **Impact Analysis and Findings**

No operational impacts to the identified historic properties/historical resources would result from the No Build Alternative because there would be no new operations, construction, or structures.

***NEPA and Section 106 Finding - There would be no adverse effects to historic properties under the No Build Alternative.***

***CEQA Determination - There would be no significant impacts to historical resources under the No Build Alternative.***

### **2.7.3.2 Alternative 1**

Alternative 1 proposes an in-kind replacement bridge with the same alignment and profile as the existing Pier Bridge. The replacement bridge would be approximately 448 feet in length and approximately 38 feet wide, 4 feet wider than the existing Pier Bridge. The additional width would occur on the north side of the replacement bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing Pier Bridge.

Vehicles and bicycles would use a 20-foot-wide roadway on the south side of the bridge. Pedestrians would use a 15-foot-wide sidewalk on the north side of the bridge. Although this configuration matches the current location of pedestrian and vehicular lanes, the approach from Ocean Avenue would require a northeast-to-southwest taper from the existing curbs to accommodate the wider sidewalk design. This alternative would also require an extension of the Pier deck beyond where the replacement bridge lands on the Pier, approximately 4 feet wide and 157 feet long along the north edge of the Municipal Pier. The Pier Sign would be temporarily removed prior to construction, extended in height, and reinstalled in its existing location.

## Visual Simulations for Alternative 1



**Alternative 1: View west toward Pier from east end of Bridge. Looff's Hippodrome is visible at middle left. Source TYLIN 2020.**



**Alternative 1: View north toward Bridge from Ocean Front Walk.**





**Alternative 1: View south from Palisades Park toward Bridge and Pier.**



**Alternative 1: View south toward Bridge from North Lot 1 parking.**





**Alternative 1: View west toward east Bridge approach with elevated Pier Sign seen from Colorado Avenue.**



**Alternative 1: View south from Palisades Park toward Bridge. Looff's Hippodrome is visible at middle right.**





**Alternative 1: View east from Pier deck with Pier Sign in background.**



**Alternative 1: View north toward Bridge from the Pier deck in front of Loeff's Hippodrome.**

## **Impacts Analysis Under Alternative 1**

### **Archaeological Resources Under Alternative 1**

No previously identified archaeological resources occur within the project footprint. In the unlikely event that cultural materials (prehistoric or historic artifacts) are encountered during construction, work should stop in the vicinity of the find until a qualified archaeologist can assess the material, significance of the find and, if necessary, develop appropriate treatment measures in consultation with the City as specified in mitigation measure CR-2.

If human remains are exposed during construction, State Health and Safety Code Section 7050.5 states that no further disturbance must occur until the county coroner has made the necessary findings as to origin and disposition pursuant to PRC 5097.98. Construction must halt in the area of the discovery of human remains, the area must be protected, and consultation and treatment should occur as prescribed by law, as specified in mitigation measure CR-1. No further archaeological resource management is required beyond the measures specified above for the undertaking.

### **Built Resources Under Alternative 1**

#### *Palisades Park*

The Park runs about 1.5 miles along the top of the bluffs overlooking the Pier and beachfront below. The Park's southern entrance lies immediately north of and adjacent to the Pier Sign and the existing pedestrian approach to the Pier Bridge from Ocean Avenue.

Under both alternatives, temporary construction staging and work areas are proposed on the paved pedestrian area bound by the east side of Ocean Avenue, the southern edge of the Park, the north side of the Pier Bridge, and continuing west of the concrete fence, down the bluffs, and across Moomat Ahiko Way. This paved pedestrian area falls within the 40-foot-wide bridge right-of-way and is outside of but adjacent to the Park's southernmost boundary. Construction staging along the north side of the Pier Bridge would also require the removal of existing vegetation on the bluffs, to be replaced with substantially similar vegetation upon the completion of construction.

### **Impacts Analysis for Construction Activities**

Under Alternative 1, no physical destruction or damage to the Park would occur during construction. This phase of the undertaking would not result in the removal of any character-defining features or a change in the property's historic public use or character. The Park's southern entrance from Ocean Avenue would remain accessible, as would the footpaths around the cannon, along the cement fence above the bluffs, and those leading north into the Park. The construction fencing used to secure the staging area along the north side of the Pier Bridge would temporarily obscure views south from the southernmost portion of the Park. However, because these modifications would be modest in height and footprint and would be temporary in nature, they would not substantially or permanently alter any of the characteristics of Palisades Park that qualify it for listing as a historic property under Section 106 and NEPA in a manner that would diminish the property's integrity.

There would be no change to the configuration of pedestrian and vehicular traffic at the Pier Bridge's eastern approach from the intersection at Colorado Avenue/Ocean Avenue. Although the Pier Bridge would be closed during construction for a period of 24 months, estimated to end in September 2027, circulation within the Park and pedestrian access to and from the Park from the intersection would be maintained.

Temporary construction fencing approximately 7 feet in height would be installed around the perimeter of the staging area to keep out trespassers. Existing vegetation on the bluffs along the north side of the Pier Bridge that would be removed to accommodate staging would be replaced with substantially similar vegetation upon the completion of construction. These temporary alterations would not occur within the Park boundaries or remove or change any of the character-defining features of the Park that contribute to its historic significance. The Park setting would experience temporary effects through the removal of vegetation and the introduction of construction staging fencing adjacent to but not within Park boundaries. Because these changes would be for a reasonable and foreseeable temporary period of 24 months, estimated to end in September 2027, they would not result in permanent adverse effects on the Park's setting.

Partial views toward the Pier and Pier Bridge would be temporarily obscured from locations in the Park immediately adjacent to the construction area; however, due to the Park's linear form and 1.5-mile-length, the intrusion would be proportionately very limited and would not diminish the quality of views to and from the Park to a degree that its historic significance would be lost. The contributing mature Canary Island date palms in the APE are approximately 200 feet north of the staging area.

During construction of the project, noise from construction activities may intermittently disturb the environment in the immediate area of construction during daytime hours. The immediate setting of the Park is characterized as a public space in the immediate vicinity of busy local roads and highways; therefore, a quiet setting is not a character-defining feature. Intermittent noise from construction that is well within the thresholds for sensitive receptors is unlikely to have an adverse effect on the Park.

### ***Section 106 and NEPA Determination of Effect***

Although the proposed project would require slight modifications to areas adjacent to Palisades Park to provide construction staging areas, Alternative 1 would not alter any of the characteristics of Palisades Park that qualify it for listing as a historic property under Section 106 and NEPA in a manner that would diminish the property's integrity. Implementation of *Design Features Common to Both Build Alternatives* in Section 2.7.2.3 would further ensure that Palisades Park maintains the characteristics that qualify it for listing as a historical resource under Section 106 and NEPA. **Therefore, effects would not be adverse under NEPA.**

### ***Impact Determination under CEQA***

This alternative would not alter any of the characteristics of Palisades Park that qualify it for listing as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, impacts would be less than significant under CEQA.**

***Impacts Analysis for Operations Activities***

Alternative 1 would replace the Pier Bridge in kind and there would be no change to Palisades Park's southern boundary or relationship with the intersection at Colorado Avenue and Ocean Avenue. Pedestrians would continue to access the Pier Bridge in the same location adjacent to the Park. Views to and from as well as within the Park would remain the same. Vegetation along the section of bluffs immediately adjacent to the Pier Bridge is not within the Park's boundaries but would be replanted following construction with substantially similar vegetation to maintain the area's current appearance.

***Section 106 and NEPA Determination of Effect***

Alternative 1 would not alter any of the characteristics of Palisades Park that qualify it for listing in the NRHP as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, no adverse operational effects on Palisades Park are expected under Alternative 1.**

***Impact Determination under CEQA***

The proposed project under Alternative 1 would not alter any of the characteristics of Palisades Park that qualify it for listing as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. All impacts would occur during the construction phase. **Therefore, impacts on Palisades Park would be less than significant under CEQA.**

***Santa Monica Pier Sign***

Approximately 50 feet west of the intersection of the Colorado Avenue and Ocean Avenue, the free-standing Pier Sign straddles the Pier Bridge atop two steel channel columns. The location of the Pier Sign serves as the main entrance to the Pier and is adjacent to the southernmost entrance to Palisades Park. The area is busy with vehicular, bicycle, and pedestrian traffic. The Pier Sign's proximity to the intersection, size, neon lighting, and graphic design make it a highly visible feature within this setting.

Under Alternative 1, the Pier Sign would be temporarily removed for its protection during the construction phase as substantial demolition and construction activities are expected in the immediate vicinity.

***Impacts Analysis for Construction Activities***

The process to disassemble, transport, store, and reinstall the Pier Sign has the potential to cause physical damage and result in adverse changes to the resource. In addition, the alteration of the Pier Sign to extend its support columns and increase the Pier Sign's overall height could similarly result in an adverse change if not carried out consistent with the Standards and applicable treatment guidelines.

The alteration of the Pier Sign to extend its support columns and increase its overall height could result in an adverse impact if not completed consistent with the Standards. Prior to reinstallation,

the Pier Sign's steel lattice columns would be lengthened such that, upon reinstallation, the Pier Sign's overhead clearance increases by 3 feet 4 inches; the Pier Sign would increase from 25 to 28 feet 11 inches in height. This change in height would limit damage caused by collision with tall vehicles and bring the Pier Sign's overhead clearance into conformance with existing State transportation code. The process to lengthen the Pier Sign's columns would require physical alteration of their character-defining steel lattice design. This alteration can be easily accommodated because of the exposed metal assembly of the steel truss members. New truss members that are visually differentiated from but compatible with the existing ones can be inserted and attached without resulting in an adverse change to the Pier Sign's character-defining features, including its overall width, symmetry, graphic elements such as lettering, and neon tubing. The Pier Sign would retain its integrity of materials and workmanship. In addition, the Plan requires the Historic Preservation Specialist to document the Pier Sign prior to construction to record existing conditions and details of the Pier Sign's character-defining features and components (e.g., neon gas tubing, electrical wiring, metal connections, painted surfaces) with copies to be attached to the Pier Sign Report, as described in the Pier Sign Preservation Plan (see Attachment A).

### ***Mitigation Measures***

To ensure that the Pier Sign maintains its characteristics that qualify it for listing in the NRHP as a historic property, the City would implement avoidance measures described in mitigation measure CR-4 and Conditions for Approval in the FNAE, i.e., the Pier Sign Preservation Plan. The Preservation Plan (Appendix N) outlines best practices for the treatment of the historic neon sign and requires the City's Contractor to engage a Historic Preservation Architect to provide specifications and recommendations for Standards-compliant work on the Pier Sign's disassembly, transport, storage, alterations, and reinstallation and to complete an evaluation of the Pier Sign and any maintenance or repairs it may need prior to construction.

### ***Section 106 and NEPA Determination of Effect***

With the implementation of conditions that would minimize the potential for adverse effects under mitigation measure CR-4 and FNAE Conditions for Approval, **construction effects on the Pier Sign are not expected to be adverse under Alternative 1.**

### ***Impact Determination under CEQA***

Under Alternative 1, implementation of the Pier Sign Preservation Plan, as described under mitigation measure CR-4, would mitigate to less than significant potential impacts on the characteristics of the Pier Sign that qualify it for listing as a historical resource. **Therefore, construction impacts would be less than significant under CEQA.**

### ***Impacts Analysis for Operation Activities***

Under both alternatives the Pier Sign would be just under 3 feet 4 inches taller than its present height upon reinstallation. The height increase is intended to limit the Pier Sign's vulnerability to damage caused by collision from tall vehicles passing below it and to bring the Pier Sign's overhead clearance into conformance with current State code. The Pier Sign would continue to be symmetrical and free-standing and would retain its integrity of design, feeling, and association. No alterations to the Pier Sign's raceway or cage, graphic design and lettering, neon lighting, or



colors are proposed. Its alignment, location, and setting would be substantially similar to existing conditions and its association with the Pier Bridge would remain unchanged. The Pier Sign's orientation toward the intersection and alignment over the vehicular path are character-defining features that would remain intact. The Pier Sign would continue to be highly visible, its neon would continue to function, and it would retain its historically significant role of advertising the Pier and its recreational amenities located beyond the bluffs.

A mitigation measure is required to ensure the alteration to achieve the proposed height increase complies with the Standards. Also outlined in the FNAE as a Condition of Approval, this mitigation measure requires the Contractor to implement the Pier Sign Preservation Plan in which specifications and recommendations are made for the introduction of new materials visually differentiated from but compatible with the existing painted steel channel columns. Under the Preservation Plan, the Contractor is required to engage a Historic Preservation Architect to review proposed modifications for Standards compliance and provide specifications for the Sign architect/engineer. Conditions also require Caltrans PQS to review specifications and final plans for the Pier Sign prior to work beginning. As conditioned, the Pier Sign's character-defining features would not be subject to alterations that would diminish its integrity or NRHP eligibility.

### ***Mitigation Measures***

To ensure that the Pier Sign maintains its characteristics that qualify it for listing in the NRHP as a historic property, the City would implement avoidance measures described in mitigation measure CR-4 and the FNAE Conditions, i.e. the Pier Sign Preservation Plan.

### ***Section 106 and NEPA Determination of Effect***

With the implementation of CR-4 and FNAE Conditions for Approval, Alternative 1 would not alter any of the characteristics of the Pier Sign that qualify it for listing as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property.

**Therefore, no operational effects on the Pier Sign are expected under Alternative 1.**

### ***Impact Determination under CEQA***

With the implementation of CR-4, under Alternative 1, the proposed project would not alter any of the characteristics of the Pier Sign that qualify it for listing as a historical resource under CEQA in a manner that would diminish the property's historic integrity. **Therefore, operational impacts would be less than significant under CEQA.**

### ***Looff's Hippodrome***

Looff's Hippodrome is a large, eclectic-style building specifically constructed to house a carousel. The two-story building with its three-story corner towers and tent-like roof dominates the eastern end of Looff Pleasure Pier and is the first amenity on the Pier that visitors arriving from the Pier Bridge encounter. The Pier Bridge terminates on the Pier approximately 25 feet north of the building.

**Impacts Analysis for Construction Activities**

Construction activities are not expected to result in adverse effects or impacts on Loeff's Hippodrome. The light, wood-frame building is in very good, rehabilitated condition and sits on the east end of the Pier which was substantially reconstructed during installation of Carousel Park and the Aquarium in the late 1980s.

Temporary construction fencing would be in place around the area of demolition for public safety and to screen debris. The existing Pier Bridge would be structurally disconnected from the Municipal Pier and Loeff Pleasure Pier as part of bridge demolition. Part of this process would include the temporary removal of Pier decking between the Pier Bridge and Loeff's Hippodrome to facilitate access to the west bridge abutment and tie-ins. The decking would be replaced in kind upon completion of construction.

Because of the property's NHL status, a mitigation measure requires the project to include an Adjacent Structure Monitoring Plan (Monitoring Plan) prepared by a qualified and California-licensed Professional Engineer to ensure that construction activities would not result in damage due to vibration, demolition, excavation, and other construction activities. During the final design of the project, the Engineer will develop monitoring recommendations based on preconstruction surveys and photo documentation, specify vibration thresholds to be maintained to avoid damage, and will provide direction should damage be observed.

While noise from construction activities may intermittently disturb the environment during daytime hours, the property's immediate setting is characterized by the dynamic environment of an amusement park, transportation, and outdoor recreational amenities. A quiet setting is not a character-defining feature of Loeff's Hippodrome, which is surrounded by ocean waves, vehicles traveling on the Pier deck, nearby mechanical amusement rides also on the Pier deck, and houses its own operational carousel. Alternative construction methods incorporated into the project design such as cast-in-drilled-holes pile installation will also limit transient sources of construction noise and vibrations. Intermittent noise and vibration from construction that is well within the thresholds for sensitive receptors is unlikely to have an adverse effect on adjacent resources, including Loeff's Hippodrome. Please refer to Chapter 3 *CEQA*, Section 3.2.11 *Noise* for further discussion on vibration. Under CR-3, a Monitoring Plan will be implemented to establish noise and vibration thresholds prior to construction beginning.

For the duration of demolition and new bridge construction, a temporary pedestrian bridge would be installed parallel to the south side of the Pier Bridge and touch down on the Pier adjacent to where the Pier Bridge presently terminates on the Pier. This temporary bridge would run the length of the building's north elevation approximately 4 feet from the building, partially obscuring views of this elevation and restricting east/west pedestrian circulation, although Loeff's Hippodrome would remain accessible to visitors from its three other sides. The temporary pedestrian bridge would also introduce a new structure into the immediate setting. However, this would not result in an adverse effect on Loeff's Hippodrome, as the temporary structure would follow the existing bridge slope and it would be designed to be reversible. Pedestrians would still have access to the Pier from Carousel Park, south of Loeff's Hippodrome. The building would continue to be visible from the southeast, south, and west because of its large size and tall, tent-like roof form. Because the pedestrian structure would be open to the south, pedestrians using the temporary bridge would temporarily gain a closer view of Loeff's

Hippodrome. In addition, the temporary structure would provide limited protection to the north elevation of Loeff's Hippodrome from debris and water spray during demolition and construction. These temporary beneficial impacts would offset any temporary adverse effect the pedestrian structure may have on the historic property's setting.

During construction of the project, noise from construction activities may intermittently disturb the environment in the immediate area of construction during daytime hours. The immediate setting is characterized as a public space in the immediate vicinity of an amusement park and outdoor recreational amenities. A quiet setting is not a character-defining feature of Loeff's Hippodrome. Intermittent noise from construction that is well within the thresholds for sensitive receptors is unlikely to have an adverse effect on this historic property.

Under Alternative 1, no changes to the property's integrity of location, design, materials, workmanship, feeling, or association are expected.

### ***Mitigation Measures***

Implementation of the Monitoring Plan outlined in CR-3 and FNAE Conditions of Approval will mitigate potential impacts from construction activities to less than significant.

### ***Section 106 and NEPA Determination of Effect***

With implementation of CR-3 and FNAE Conditions of Approval, construction activities under Alternative 1 would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historic property under Section 106 and NEPA. **Therefore, no adverse effects on Loeff's Hippodrome are expected during construction under Alternative 1.**

### ***Impact Determination under CEQA***

With implementation of CR-3, construction activities under this alternative would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant construction impacts on Loeff's Hippodrome under CEQA for Alternative 1.**

### ***Impacts Analysis for Operational Activities***

The proposed new bridge under Alternative 1 would be substantially the same height, width, and location as the existing Pier Bridge. The existing configuration of the sidewalk along the north side of Pier Bridge and vehicular lanes on the south side would remain unchanged. Therefore, there would be no change in the setting or operation of Loeff's Hippodrome as a result of Alternative 1. The historic property's character-defining features would not be subject to alterations that would diminish its integrity. No permanent or temporary impacts are anticipated to result in significant adverse changes to Loeff's Hippodrome as a result of Alternative 1.

Alternative 1 would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

***Section 106 and NEPA Determination of Effect***

No permanent or temporary impacts are anticipated to affect Loeff's Hippodrome as a result of Alternative 1. This alternative would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, no operational effects on Loeff's Hippodrome are expected under Alternative 1.**

***Impact Determination under CEQA***

This alternative would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant operational impact on Loeff's Hippodrome under CEQA for Alternative 1.**

***Santa Monica Pier***

The Pier consists of two attached but separate structures: the long narrow Municipal Pier (1909) and the adjacent rectangular Loeff Pleasure Pier (1916) to the south. Both extend from Ocean Front Walk on the east out over the Pacific Ocean to the west. To the south of the Pier is public beachfront. A large asphalt parking lot dominates the northern side. The eastern edge of Newcomb Pier along Ocean Front Walk was altered with the introduction of Carousel Park as a part of the 1980s Pier rehabilitation project. Current uses across both Piers include the carousel housed in Loeff's Hippodrome at the east end; Pacific Park's amusement rides and games at the west end; a penny arcade, a variety of food establishments, a trapeze school, an aquarium, and beach-themed retail. Aside from Loeff's Hippodrome and the Billiards Building, much of Loeff Pleasure Pier is dedicated to parking. Although portions of the Municipal Pier have been repaired and rebuilt over its lifetime due to storm damage, it retains its open setting and beachfront location, wood decking, light standards, and associated buildings as character-defining features.

***Impacts Analysis for Construction Activities under CEQA***

Under Alternative 1, construction activities would be confined to the east and north sides of the Pier and would be mostly temporary in nature, except for the extension of the Pier deck, beyond where the replacement bridge would land on the eastern end of the Pier. This extension will be 4 feet wide and 157 feet long. The existing Pier Bridge will be structurally disconnected from the Municipal Pier and the Loeff Pleasure Pier as part of the bridge demolition process.

The removal of Pier decking between the Pier Bridge and Loeff's Hippodrome would be necessary to facilitate construction access to the west bridge abutment and tie-ins and will be replaced in-kind. Construction is expected within approximately 5 feet of where the bridge engages the Pier in order to accommodate a drilling rig and associated machinery.

Pedestrians, cyclists and vehicles would continue to have access to the Pier during construction. Car access would be maintained by a temporary car ramp from the adjacent Parking Lot 1 North parking area and a temporary pedestrian bridge parallel to the existing Pier Bridge. Although both structures would engage the Pier structure, both would be designed to be reversible and are not expected to result in adverse alterations to the Pier.

Impacts from vibration resulting from excavation, demolition, and pile installation would be temporary and would not be expected to exceed those vibrations the Pier structure is already designed to resist from ocean waves and car traffic on the deck. In addition, the project includes an Adjacent Structure Monitoring Plan (Monitoring Plan) prepared by a qualified and California-licensed Professional Engineer to ensure that construction activities would not result in damage due to vibration, demolition, excavation, and other construction activities. During the final design of the project, the Engineer will develop monitoring recommendations based on preconstruction surveys and photo documentation, specify vibration thresholds to be maintained to avoid damage, and will provide direction should damage be observed.

During construction, noise from construction activities may intermittently disturb the setting of the Pier, but as the Pier is a public space often crowded with people, occupied by typically noisy amusement park rides and games; a quiet setting is not a character-defining feature of the Pier. Noise from construction activities is not expected to have a significant impact to this historical resource.

**Therefore, there would be no significant construction impact on the Santa Monica Pier under CEQA.**

#### ***Impacts Analysis for Operations Activities under CEQA***

Alternative 1 would replace the bridge in kind, this alternative would not have significant changes that would negatively affect operation of the Santa Monica Pier.

Under Alternative 1, deck plank replacement in the vicinity of the bridge and along the north side would be limited in area and materials would be replaced in kind per mitigation measure CR-5. The approximately 4-foot-wide extension along the north under Alternative 1 would be additive in nature and not remove any of the Pier's character defining features. It would also maintain the flat, open-air character of the Pier deck. No adverse effects are anticipated from this change.

Although structural modification of the Santa Monica Pier would occur, Alternative 1 would not alter any of the characteristics that qualify it for designation as a City of Santa Monica landmark in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The Pier's Landmark designation sets forth the level of review required for different types of alterations to the Pier deck and structures placed on it. Pier Design Guidelines have also been established to maintain the Pier's historic character. The City of Santa Monica's Landmarks Commission would follow established procedures through the Certificate of Appropriateness process and confirm conformance with the Standards and the Pier Design Guidelines.

#### ***Mitigation Measures***

To ensure the replaced decking material on the Pier would not alter any of the structure's characteristics that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association, mitigation measure CR-5 would be implemented.

***Impact Determination under CEQA***

With implementation of CR-5, there would be no significant operational impact on the Santa Monica Pier under CEQA. **Therefore, operational impacts on the Santa Monica Pier would be less than significant under CEQA.**

***Ocean Front Walk Landmark Buildings and Parcel***

The parcel and three of its five buildings along Ocean Front Walk were designated local landmarks as examples of the city's cultural, social, and economic history, specifically the development of South Beach and the amusement tourism economy. The parcel and its individually designed buildings share their setting directly across from the Pier, along Ocean Front Walk, and westward orientation. The northernmost building at 1601 Ocean Front Walk is adjacent to the Pier Bridge. Its character-defining features are its two-story height; brick cladding and parapet flat roof; and original windows and fenestration pattern on the second floor of the north and west elevations. The character-defining features of the adjacent building at 1605 are its two-story massing; low pitch roof and false front roofline on the west and east elevations; its fenestration pattern and tripartite windows on the second story of the west elevation; and its stucco cladding. The oldest building of the group is 1611; its character defining features are its one-story massing; brick construction; open storefront along the west elevation with Greek-revival details (entablature, cornice, engaged pilasters and pediment); and stepped parapet wall on its east elevation.

***Impacts Analysis for Construction Activities under CEQA***

Under Alternative 1, the demolition of the existing bridge and construction of the new bridge would introduce temporary adverse changes to the setting and visibility of the buildings and parcel while exposing the contributing buildings to potential damage from falling debris, vibration, and heavy machinery.

Construction under Alternative 1 would be temporary and the extent of the visual nuisance from construction equipment and machinery would be primarily limited to the areas along the north side of the Pier. Construction activities would not permanently affect the aesthetic appeal or extensively intrude into the Landmark parcel for an extended period of time.

Under both alternatives, the City would prepare a Monitoring Plan to safeguard adjacent historical resources, including the building at 1601 Ocean Front Walk, from damage due to vibration, demolition, excavation, and general construction activities. The Engineer will develop monitoring recommendations based on preconstruction surveys and photo documentation. The Plan will include performance standards that specify vertical and horizontal movement as determined by a California-licensed land surveyor or qualified professional engineer, and based on those, specify vibration thresholds to be maintained to avoid damage to adjacent structures, and will provide direction should damage be observed at any of the buildings on the Ocean Front Walk parcel.

The temporary pedestrian bridge proposed under Alternative 1 would pass within a narrow distance of the two-story building at 1601 Ocean Front Walk. The temporary bridge is expected to be open to the south, thereby maintaining views of the Ocean Front Walk parcel properties for its users. The temporary bridge will have approximately the same slope as the existing bridge and will not introduce visual impacts.

***Mitigation Measures***

A Monitoring Plan will be implemented prior to construction starting as outlined under mitigation measure CR-3.

***Impacts Determination under CEQA***

With the implementation of CR-3, no permanent or temporary impacts are expected to affect the buildings and parcels at 1601–1619 Ocean Front Walk under Alternative 1. **Therefore, impacts would be less than significant under CEQA.**

***Impacts Analysis for Operations Activities under CEQA***

Alternative 1 does not propose any changes that would permanently affect the properties at 1601–1619 Ocean Front Walk. The proposed project would not alter any of the characteristics of the buildings and parcels at 1601–1619 Ocean Front Walk that qualify them as historical resources under CEQA in a manner that would diminish the integrity of the properties' location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant impact under CEQA.**

***Carousel Park***

Carousel Park is a public park at the east edge of Loeffl Pleasure Pier that serves as an entrance to the elevated Pier deck from Ocean Front Walk; when completed in 1986, it replaced a heavily deteriorated section of the Pier deck that originally sloped down from Loeffl's Hippodrome to meet Ocean Front Walk. The Park contains a number of public amenities including a children's play area, amphitheater seating, benches, stairs and ramps, and decorative open-air metal frame viewing pavilions. Landscape features soften the transition between the street-like character of Ocean Front Walk and the raised Pier deck. The arcade-like exterior walls of the aquarium and the easterly extension of the original Pier deck above it fall within the Park's boundaries but are not considered character-defining features.

***Impacts Analysis for Construction Activities under CEQA***

Bridge demolition, construction, and installation of a temporary pedestrian bridge would occur adjacent to the northern portion of the Park's boundary. The aquarium's arcade walls and the poured-in-place concrete bench and retaining wall are the features closest to the construction activities. The majority of the Park's character-defining features are concentrated in the southern portion, including the playground, distinctive seahorses at the retaining wall ends, the wood-plank amphitheater seating, and open-air pavilions. The distance between where piles for the new bridge would be installed and these features is sufficient to limit vibration effects. In addition, the Monitoring Plan directs the project contractor to employ alternative construction methods that limit vibrations, including cast-in-drilled-holes pile installation. Therefore, vibrations from heavy machinery, excavation, and drilling are not anticipated to reach a level that could result in damage or other substantial adverse change to the Park.

Construction activities would result in visual disruptions to the general setting, specifically that portion of the Park adjacent to the bridge. However, construction would be temporary and the extent of the visual nuisance from the construction equipment and vehicles would be limited to



the areas adjacent to the north side of the Pier. Construction activities would not substantially affect the aesthetic appeal of the Park's design features.

The temporary pedestrian bridge structure would be fixed to the Pier deck within the general vicinity of the aquarium's arcade walls and public seating area on the deck above. This structure would be temporary and designed to be reversible. It would be modest in size and would replicate the slope of the existing bridge. Therefore, it is not expected to have adverse impacts on the Park. Additionally, the south side of the temporary bridge will be open, maintaining southward views to the Park for its users. **Therefore, there would be no significant construction impact on Carousel Park under CEQA.**

### ***Impacts Analysis for Operations Activities under CEQA***

Alternative 1 does not propose any changes that would permanently affect Carousel Park. The proposed project would not alter any of the characteristics of the features, furniture, or landscaping that qualifies it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant impact under CEQA.**

### ***Santa Monica Pier District***

The group of buildings and amenities on, around, and including the Pier were found to be a locally eligible district of rare resources related to the early tourist, recreational, social, and economic history of Santa Monica, and to be reflective of a particular period, early construction methods and craftsmanship associated with early Pleasure Pier and arcade development. The potential district's nine contributing resources include the Pier Sign, the Pier Bridge, the Pier, Loeff's Hippodrome, and the three landmark buildings and landmark parcel at 1601-1619 Ocean Front Walk. Carousel Park falls within the potential district's boundaries but is not a contributing resource because it falls outside the district's period of significance (1909-1955). Key character-defining features include the general topography of the potential district; circulation and land use patterns; location, lot sizes, and interrelated association of district features and contributors including their spatial relationships; view corridors and visibility; and the district's setting and feeling.

### ***Impacts Analysis for Construction Activities under CEQA***

Several of the potential district's contributing properties are concentrated around where the majority of demolition and construction activities would take place: the Bridge, the Pier, the Pier Sign, Loeff's Hippodrome, and Ocean Front Walk landmark buildings and parcel.

Under Alternative 1, the existing bridge (1939) would be replaced with a new bridge substantially similar in location, slope, height, and width. Construction activities would result in the complete demolition of the bridge structure for purposes of public safety. This would result in a substantial adverse change to a contributing resource and result in a significant and unavoidable impact on the potential district.

Under Alternative 1, the temporary pedestrian bridge would introduce a new structure to the area south of the bridge. Although it would pass closer to the building at 1601 Ocean Front Walk and Loeff's Hippodrome than the existing bridge, this structure would be substantially the same

slope and height while being clearly differentiated in form and materials. The structure would be temporary and by design its installation would be reversible. These visual changes would be temporary and would not permanently alter the contributing features that qualify the District for listing in the CRHR.

**Impacts to the eligible Pier District under CEQA would be significant and unavoidable.**

#### ***Impacts Analysis for Operations Activities under CEQA***

Introduction of a new bridge would have the potential to diminish the historic character of the eligible Pier District without minimization measures. Conceptual drawings for Alternative 1 indicate that the replacement bridge would retain the overall scale, form, and spatial relationships of the existing bridge.

#### ***Mitigation Measures***

Under mitigation measure CR-6, the new bridge design would follow guidance and direction provided in the Pier District Design Guidelines ensuring the eligible district would maintain the features that qualify it as a historical resource under CEQA.

#### ***Impact Determination under CEQA***

Implementation of CR-6 would ensure the replacement bridge will be substantially similar in overall scale, form, and spatial relationships of the existing bridge. **Therefore, impacts under CEQA would be less than significant.**

#### ***LA County Lifeguard Headquarters***

Los Angeles County Lifeguard Headquarters, located at 1642 Ocean Front Walk, is eligible for local City of Santa Monica Landmark listing only. The two-story building dates from 1958. It is approximately 100 feet south of the Pier and is setback approximately 80 feet from Ocean Front Walk.

#### ***Impacts Analysis for Construction Activities under CEQA***

Construction activities under this alternative would not alter any of the characteristics of the Lifeguard Headquarters that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant construction impacts on the Lifeguard Headquarters under CEQA.**

#### ***Impacts Analysis for Operation Activities under CEQA***

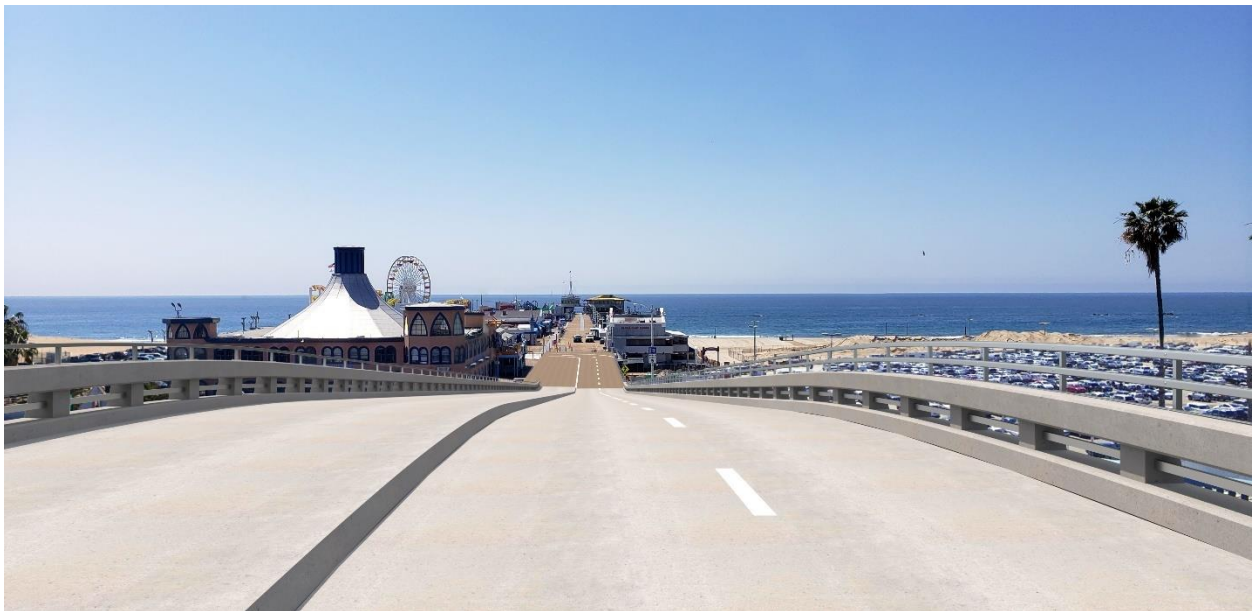
Alternative 1 does not propose any changes that would permanently affect the Lifeguard Headquarters building. The proposed project would not alter any of the characteristics of the features that qualify it as a historical resource under CEQA. **Therefore, there would be no significant operational impacts under CEQA.**

### 2.7.3.3 Alternative 2 – Locally Preferred Alternative (LPA)

Alternative 2 proposes an in-kind replacement bridge with the same alignment and profile as the existing Pier Bridge. The replacement bridge would be approximately 448 feet in length and approximately 38 feet wide, 4 feet wider than the existing Pier Bridge. The additional width would occur on the north side of the replacement bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing Pier Bridge. The City selected Alternative 2 as the Locally Preferred Alternative (LPA).

Vehicles and bicycles would use a 20-foot-wide roadway on the north side of the bridge. Pedestrians would use a 15-foot-wide sidewalk on the south side of the bridge. Under Alternative 2, the realignment of the bridge approach from the intersection of Ocean Park Avenue and Colorado Boulevard would require construction of new curbs and paving for vehicle access and new paving to accommodate the shift of pedestrian traffic to the south side of the intersection. As under Alternative 1, the Pier deck would also require an extension of approximately 4 feet wide and 157 feet long along the north edge of the Municipal Pier beyond where the replacement bridge lands on the Pier. The Pier Sign would be removed prior to construction, extended in height, and reinstalled approximately 10' north of its existing location.

#### Visual Simulations for Alternative 2



**Alternative 2: View west toward Pier from east end of Bridge. Looff's Hippodrome is visible at middle right.**



**Alternative 2: View north toward Bridge from Ocean Front Walk.**



**Alternative 2: View south toward Bridge and Pier from Palisades Park.**





**Alternative 2: View south toward Bridge from North Lot 1 parking.**



**Alternative 2: View south toward Bridge over Pacific Coast Highway. Loeff's Hippodrome is visible at middle left.**





**Alternative 2: View west of each Bridge approach and modified Pier Sign as seen from Colorado Avenue.**



**Alternative 2: View east toward Bridge from Pier Deck with the modified Pier Sign in the background.**



**Alternative 2: View north toward Bridge from the Pier deck in front of Looff's Hippodrome.**

## **Impacts Analysis Under Alternative 2**

The proposed project under Alternative 2 is substantially similar to Alternative 1. Demolition and construction activities are anticipated to be the same. The primary difference between the two alternatives is the location of the car travel lanes and pedestrian sidewalk on the bridge and as a result, location of curbs and sidewalks at the eastern-most approach to the bridge at Ocean Boulevard. The following analysis notes where the proposed work and anticipated impacts would be the same as under Alternative 1 and where they would differ.

### **Archaeological Resources Under Alternative 2**

As under Alternative 1, no previously identified archaeological resources occur within the project footprint. The same two mitigation measures apply to address unexpected exposure of human remains (CR-1) or the unlikely possibility of encountering prehistoric cultural materials or historic artifacts during construction (CR-2). No further archaeological resource management is required for the undertaking beyond the measures specified above.

### **Built Resources Under Alternative 2**

#### *Palisades Park*

Under Alternative 2, construction of new curbs and a railing would be necessary to accommodate the new vehicular approach at the eastern end of the Pier Bridge. These changes would occur along the northern edge of the Pier Bridge and approximately 40 feet from the southern edge of but not within the boundaries of Palisades Park.



***Impacts Analysis for Construction Activities***

Under this alternative, no physical destruction or damage to the Park would occur during construction and the Park's southern entrance from Ocean Avenue would remain accessible. Prior to construction, Palisades Park would be photographed to record existing conditions for the historic record and documentation will be kept on file at the City of Santa Monica for public access, as described in *Design Features Common to Both Build Alternatives* in Section 2.7.2.3.

All other construction activities remain the same as under Alternative 1.

***Section 106 and NEPA Determination of Effect***

**No adverse effects on Palisades Park are expected during construction under Alternative 2.**

***Impact Determination under CEQA***

Construction activities under Alternative 2 would not alter any of the characteristics of Palisades Park that qualify it for listing as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, impacts would be less than significant under CEQA.**

***Impacts Analysis for Operations Activities***

Under Alternative 2, the vehicular and pedestrian approaches to the Pier Bridge would be realigned. Pedestrian access from the Park to the Pier Bridge would shift to the south side of the vehicular travel lanes, opposite of its current configuration.

Changes to the east approach and sidewalk location would necessitate pedestrians crossing the Pier Bridge's travel lanes to access the new sidewalk. This change would not result in adverse effects on the character-defining features of the Park, including walkways, landscape features, or views westward that take in the Pier, Looft's Hippodrome, and the oceanfront. The Park's southern entrance would continue to be adjacent to the bridge entrance, which also serves as the primary entrance to the Pier.

***Section 106 and NEPA Determination of Effect***

Alternative 2 would not alter any of the characteristics of Palisades Park that qualify it for listing in the NRHP as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, operational effects on Palisades Park are expected under Alternative 2.**

***Impact Determination under CEQA***

The proposed project under Alternative 2 would not alter any of the characteristics of Palisades Park that qualify it for listing in the CRHR as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. All impacts would occur during the construction phase. **Therefore, impacts would be less than significant under CEQA.**

*Santa Monica Pier Sign*

As under Alternative 1, the Pier Sign would be removed for its protection during construction. While it is removed, its columns would be extended to increase the Sign's overall height prior to its reinstallation 10 feet north of its current location. The change in location is to ensure the Pier Sign would continue to be aligned over the vehicular lanes.

***Impacts Analysis for Construction Activities***

As under Alternative 1, the process to disassemble, transport, store, alter, and reinstall the Pier Sign could result in a significant adverse change due to physical damage. The FNAE concluded removal of the Pier Sign from its present location could result in an adverse impact if not reinstalled within a reasonably foreseeable timeframe. In addition, the alteration of the Pier Sign to extend its support columns and increase the Pier Sign's overall height could similarly result in an adverse change if not carried out consistent with the Standards and applicable treatment guidelines.

***Mitigation Measures***

To ensure that the Pier Sign maintains the characteristics that qualify it for listing in the NRHP as a historic property, the City and its Contractor would implement avoidance measures described in mitigation measure CR-4 and adhere to conditions set forth in the FNAE Conditions for Approval including the Pier Sign Preservation Plan (Appendix N). The plan outlines best practices for the treatment of the historic neon sign and requires the City's Contractor to engage a Historic Preservation Architect to provide specifications and recommendations for Standards-compliant work on the Pier Sign's disassembly, transport, storage, alterations, and reinstallation and to complete an evaluation of the Pier Sign and any maintenance or repairs it may need prior to start of construction.

***Section 106 and NEPA Determination of Effect***

With the implementation of mitigation measure CR-4 and Conditions of Approval in the FNAE, **effects on the Pier Sign would not be expected to be adverse under Alternative 2.**

***Impact Determination under CEQA***

Under Alternative 2, implementation of the Santa Monica Pier Sign Preservation Plan, as described under mitigation measure CR-4, would mitigate to less than significant potential impacts on the characteristics of the Pier Sign that qualify it for listing in the CRHR as a historical resource. **Therefore, construction impacts would be less than significant under CEQA.**

***Impacts Analysis for Operations Activities***

Under both alternatives, upon reinstallation the Pier Sign would be 3 feet 4 inches taller than its present height. The height increase is intended to limit the Pier Sign's vulnerability to damage caused by impact with vehicles passing below it and to bring the Pier Sign's overhead clearance into conformance with current State code. In addition, due to shifts in the Pier Bridge's east approach and the associated realignment of the vehicular lanes and curbing under Alternative 2,

the Pier Sign would be relocated 10 feet north of its current location so that it would continue to be aligned over the vehicular lanes.

The Pier Sign would continue to be symmetrical and free-standing and would retain its integrity of design and feeling. No alterations to the Pier Sign's raceway or cage, graphic design and lettering, neon lighting, or colors are proposed. Its alignment, location, and setting would be substantially similar to existing conditions and its association with the Pier Bridge would remain unchanged. The Pier Sign's orientation toward the intersection and alignment over the vehicular path are character-defining features that would remain intact. The Pier Sign would continue to be highly visible, its neon would continue to function, and it would retain its historically significant role of advertising the Pier and its recreational amenities located beyond the bluffs.

### ***Mitigation Measures***

To ensure that the Pier Sign maintains its characteristics that qualify it for listing in the NRHP as a historic property, the City would implement avoidance measures described in mitigation measure CR-4 and Conditions for Approval in the FNAE.

### ***Section 106 and NEPA Determination of Effect***

Potential adverse effects under Alternative 2 on the Pier Sign would be minimized through the implementation of the Pier Sign Preservation Plan under CR-4. As conditioned, Alternative 2 would not alter the characteristics of the Pier Sign that qualify it for listing as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property.

**Therefore, no operational effects on the Pier Sign are expected under Alternative 2.**

### ***Impact Determination under CEQA***

Under Alternative 2, the proposed project would not alter any of the characteristics of the Pier Sign that qualify it for listing in the CRHR as a historical resource under CEQA in a manner that would diminish the property's historic integrity. **Therefore, impacts would be less than significant under CEQA.**

### ***Loeff's Hippodrome***

### ***Impacts Analysis for Construction Activities***

Construction activities under Alternative 2 would be the same as under Alternative 1 and are not expected to result in adverse effects or impacts on Loeff's Hippodrome. The light, wood-frame building is in very good, rehabilitated condition and sits on the east end of the Pier, which was substantially reconstructed during installation of Carousel Park and the Aquarium in the late 1980s.

While noise from construction activities may intermittently disturb the environment during daytime hours, the property's immediate setting is characterized by the dynamic environment of an amusement park, transportation, and outdoor recreational amenities. A quiet setting is not a character-defining feature of Loeff's Hippodrome, which is surrounded by ocean waves, vehicles traveling on the Pier deck, nearby mechanical amusement rides also on the Pier deck, and houses its own operational carousel. Alternative construction methods incorporated into the project

design such as cast-in-drilled-holes pile installation will also limit transient sources of construction noise and vibrations. Intermittent noise and vibration from construction that is well within the thresholds for sensitive receptors is unlikely to have an adverse effect on adjacent resources, including Loeff's Hippodrome.

Temporary construction fencing would be in place around the area of demolition for public safety and to screen debris. The existing Pier Bridge would be structurally disconnected from the Municipal Pier and Loeff Pleasure Pier as part of bridge demolition. Part of this process would include the temporary removal of Pier decking between the Pier Bridge and Loeff's Hippodrome to facilitate access to the west bridge abutment and tie-ins. The decking would be replaced in kind upon completion of construction.

For the duration of demolition and new bridge construction, a temporary pedestrian bridge would be installed parallel to the south side of the Pier Bridge and touch down on the Pier adjacent to where the Pier Bridge presently terminates on the Pier. This temporary bridge would run the length of the building's north elevation approximately 4 feet from the building, partially obscuring views of this elevation and restricting east/west pedestrian circulation, although Loeff's Hippodrome would remain accessible to visitors from its three other sides. The temporary pedestrian bridge would also introduce a new structure into the immediate setting. However, this would not result in an adverse effect on Loeff's Hippodrome, as the temporary structure would follow the existing bridge slope and it would be designed to be reversible. Pedestrians would still have access to the Pier from Carousel Park, south of Loeff's Hippodrome. The building would continue to be visible from the southeast, south, and west because of its large size and tall, tent-like roof form. Because the pedestrian structure would be open to the south, pedestrians using the temporary bridge would temporarily gain a closer view of Loeff's Hippodrome. In addition, the temporary structure would provide limited protection to the north elevation of Loeff's Hippodrome from debris and water spray during demolition and construction. These temporary beneficial impacts would offset any temporary adverse effect the pedestrian structure may have on the historic property's setting.

### ***Mitigation Measures***

Because of the property's NHL status, mitigation measure CR-3 requires the project to include a Monitoring Plan prepared by a qualified and California-licensed Professional Engineer to ensure that construction activities would not result in damage due to vibration from construction activities. During the final design of the project, the Engineer will develop monitoring recommendations based on preconstruction surveys and photo documentation, specify vibration thresholds to be maintained to avoid damage, and provide direction should damage be observed.

### ***Section 106 and NEPA Determination of Effect***

With the implementation of CR-3 and Conditions of Approval outlined in the FNAE, Alternative 2 would not result in the destruction, alteration, relocation, or change to any of the characteristics of Loeff's Hippodrome that qualify it as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, no adverse construction effects on Loeff's Hippodrome are expected under Alternative 2.**

***Impact Determination under CEQA***

With implementation of CR-3, construction activities under this alternative would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant construction impacts on Loeff's Hippodrome under CEQA for Alternative 2.**

***Impacts Analysis for Operation Activities***

With the reconfiguration of the sidewalk to the south side of the replacement bridge under Alternative 2, pedestrians would arrive on the Pier closer to Loeff's Hippodrome than they presently do. This circulation pattern is similar to the original Pier Bridge design, which had a 4-foot sidewalk on both its north and south sides but the southern sidewalk was subsequently removed at an unknown date. Under Alternative 2, the pedestrian experience would be enhanced by the closer proximity of the new bridge sidewalk to Loeff's Hippodrome. The replacement bridge under Alternative 2 would otherwise be the same height, width, and location as the existing Pier Bridge; therefore, there would be no change in the setting or operation of Loeff's Hippodrome.

***Section 106 and NEPA Determination of Effect***

No permanent or temporary impacts are anticipated to affect Loeff's Hippodrome as a result of Alternative 2. Alternative 2 would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historic property under Section 106 and NEPA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore operational effects on Loeff's Hippodrome are expected under Alternative 2**

***Impact Determination under CEQA***

Alternative 2 would not alter any of the characteristics of Loeff's Hippodrome that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant impact under CEQA.**

***Santa Monica Pier******Impacts Analysis for Construction Activities***

Construction activities under Alternative 2 would be the same as under Alternative 1 including demolition, temporary pedestrian access, and construction staging locations.

Construction activities would be confined to the east and north sides of the Pier and would be mostly temporary in nature, except for the extension of the Pier deck, beyond where the replacement bridge would land on the eastern end of the Pier. This extension will be 4 feet wide and 157 feet long. The existing Pier Bridge will be structurally disconnected from the Municipal Pier and the Loeff Pleasure Pier as part of the bridge demolition process.

The removal of Pier decking between the Pier Bridge and Looff's Hippodrome would be necessary to facilitate construction access to the west bridge abutment and tie-ins and will be replaced in kind. Construction is expected within approximately 5 feet of where the bridge engages the Pier in order to accommodate a drilling rig and associated machinery.

Pedestrians, cyclists, and vehicles would continue to have access to the Pier during construction. Car access would be maintained by a temporary car ramp from the adjacent Parking Lot 1 North parking area and a temporary pedestrian bridge parallel to the existing Pier Bridge. Although both structures would engage the Pier structure, both would be designed to be reversible and are not expected to result in adverse alterations to the Pier.

Impacts from vibration resulting from excavation, demolition, and pile installation would be temporary and would not be expected to exceed those vibrations the structure is already designed to resist from ocean waves below and car traffic on the deck. In addition, the project includes an Adjacent Structure Monitoring Plan (Monitoring Plan) under CR-3 prepared by a qualified and California-licensed Professional Engineer to ensure that construction activities would not result in damage due to vibration, demolition, excavation, and other construction activities. During the final design of the project, the Engineer will develop monitoring recommendations based on preconstruction surveys and photo documentation, specify vibration thresholds to be maintained to avoid damage, and will provide direction should damage be observed.

During construction, noise from construction activities may intermittently disturb the setting of the Pier, but as the Pier is a public space often crowded with people, occupied by typically noisy amusement park rides and games; a quiet setting is not a character-defining feature of the Pier. Noise from construction activities is not expected to have a significant impact on this historical resource.

**Therefore, there would be no significant construction impact on the Santa Monica Pier under CEQA.**

### ***Impacts Analysis for Operations Activities***

Under Alternative 2, deck plank replacement in the vicinity of the bridge and along the north side would be limited in area and materials would be replaced in kind. The approximately 4-foot-wide extension along the north under Alternative 2 would be additive in nature and not remove any of the Pier's character defining features. It would also maintain the flat open-air character of the Pier deck. No adverse effects are anticipated from this change.

The Pier's Landmark designation sets forth the level of review required for different types of alterations to the Pier deck and structures placed on it. Pier Design Guidelines have also been established to maintain the Pier's historic character. The City of Santa Monica's Landmarks Commission would review and approve final designs through the Certificate of Appropriateness process and confirm conformance with the Standards and the Pier Design Guidelines.

### ***Mitigation Measures***

To ensure the replaced decking material on the Pier would not alter any of the structure's characteristics that qualify it as a historical resource under CEQA in a manner that would

diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association, mitigation measure CR-5 would be implemented.

### ***Impact Determination under CEQA***

With implementation of CR-5, there would be no significant operational impact on the Santa Monica Pier under CEQA. **Therefore, operational impacts on the Santa Monica Pier would be less than significant under CEQA.**

### ***Ocean Front Walk Landmark Buildings and Parcel***

The parcel along Ocean Front Walk contains five buildings, three of which were designated local landmarks in addition to the parcel as a whole. The northernmost building on the parcel at 1605 is immediately adjacent to the extant and proposed replacement bridges.

Demolition and construction activities under Alternative 2 are the same as under Alternative 1.

### ***Impacts Analysis for Construction Activities***

Demolition of the existing bridge and construction of the new bridge would introduce temporary adverse changes to the setting and visibility of the buildings and parcel. The temporary pedestrian bridge proposed under Alternative 2 would pass within a narrow distance of the two-story building at 1601 Ocean Front Walk.

### ***Mitigation Measures***

The City would prepare a Monitoring Plan prior to construction under measure CR-3 to safeguard adjacent historical resources, including the landmark parcel and building at 1601 Ocean Front Walk, from damage due to vibration, demolition, excavation, and general construction activities. The Engineer would develop monitoring recommendations for the parcel and its landmark buildings based on preconstruction surveys and photo documentation.

### ***Impact Determination under CEQA***

Construction activities would not permanently affect the aesthetic appeal or extensively intrude into the landmark parcel for an extended period of time. With the implementation of CR-3, no permanent or temporary direct impacts are expected to affect the buildings and parcels at 1601–1619 Ocean Front Walk under Alternative 2. **Therefore, impacts would be mitigated to less-than-significant levels under CEQA.**

### ***Impacts Analysis for Operations Activities***

### ***Impact Determination under CEQA***

Build Alternative 2 does not propose any changes that would permanently affect the properties at 1601–1619 Ocean Front Walk. **Therefore, there would be no significant impact under CEQA.**



### *Carousel Park*

Carousel Park serves as an entrance to the elevated Pier deck from Ocean Front Walk; when completed in 1986, it replaced a heavily deteriorated section of the Pier deck that originally sloped down from Looff's Hippodrome to Ocean Front Walk. The majority of the Park's character-defining features are concentrated in the southern portion, including the playground, distinctive seahorses at the retaining wall ends, the wood-plank amphitheater seating, and open-air pavilions.

#### ***Impacts Analysis for Construction Activities***

Bridge demolition, construction, and installation of a temporary pedestrian bridge are the same under this alternative as under Alternative 1. The aquarium's arcade walls and the poured-in-place concrete bench and retaining wall are the features closest to the construction activities. The aquarium walls and the easterly extension of the original Pier deck above it fall within the Park's boundaries but are not considered character-defining features.

The distance between where piles for the new bridge would be drilled and these features is sufficient to limit vibration effects. Therefore, vibrations from heavy machinery, excavation, and pile installation are not anticipated to reach a level that could result in damage or other substantial adverse change to the Park.

Construction activities would result in visual disruptions to the general setting, specifically that portion of the Park adjacent to the bridge. However, construction would be temporary and the extent of the visual nuisance from the construction equipment and vehicles would be limited to the areas adjacent to the north side of the Pier. Construction activities would not substantially affect the aesthetic appeal of the Park's design features.

The temporary pedestrian bridge structure would be fixed to the Pier deck within the general vicinity of the aquarium's arcade walls and public seating area on the deck above. This structure would be temporary and designed to be reversible. It would be modest in size and would replicate the slope of the existing bridge. Therefore, it is not expected to have adverse impacts on the Park. In addition, the south side of the temporary bridge will be open, maintaining southward views to the Park for its users.

**No significant construction impact under CEQA on Carousel Park is anticipated under Alternative 2.**

#### ***Impacts Analysis for Operations Activities***

##### ***Impact Determination under CEQA***

Alternative 2 does not propose any changes that would permanently affect the character-defining features of Carousel Park. **Therefore, there would be no significant impact under CEQA.**

### *Santa Monica Pier District*

The group of buildings and amenities on, around, and including the Pier were found to be an potential landmark district with nine contributing resources include the Pier Sign, the Pier Bridge, the Pier, Looff's Hippodrome, and the three landmark buildings and landmark parcel at 1601-1619

Ocean Front Walk. Carousel Park falls within the eligible district's boundaries but is not a contributing resource because it falls outside the district's period of significance (1909-1955).

The existing Pier Bridge, a contributing resource, would be demolished. Several of the district's contributing properties are concentrated around where the majority of demolition and construction activities would take place: the Bridge, the Pier, the Pier Sign, Loeff's Hippodrome, and Ocean Front Walk landmark buildings and parcel.

### ***Impacts Analysis for Construction Activities***

Construction activities would result in the complete demolition of the bridge structure for purposes of public safety. This would result in a substantial adverse change to a contributing resource and a significant and unavoidable impact on the potential district

The temporary pedestrian bridge would introduce a new structure to the area south of the bridge. Although it would pass closer to the building at 1601 Ocean Front Walk and Loeff's Hippodrome than the existing bridge, this structure would be substantially the same slope and height while being clearly differentiated in form and materials. The structure would be temporary and by design its installation would be reversible. These visual changes would be temporary and would not permanently alter the contributing features that qualify the District for listing in the CRHR.

**Impacts on the eligible Pier District under CEQA would be significant and unavoidable.**

### ***Impacts Analysis for Operations Activities***

Introduction of a new bridge would have the potential to diminish the historic character of the District without minimization measures. Conceptual drawings for Alternative 2 indicate that the replacement bridge would retain the overall scale, form, and spatial relationships of the existing bridge.

### ***Mitigation Measures***

Through implementation of mitigation measure CR-6, the new bridge design would follow guidance and direction provided in the Pier District Design Guidelines, ensuring the eligible district would maintain the features that qualify it as a historical resource under CEQA.

### ***Impact Determination under CEQA***

Implementation of CR-6 would ensure the replacement bridge will be substantially similar in overall scale, form, and spatial relationships of the existing bridge. **Therefore, impacts on the eligible Pier District under CEQA would be mitigated to less-than-significant levels.**

### ***LA County Lifeguard Headquarters***

Los Angeles County Lifeguard Headquarters, at 1642 Ocean Front Walk, is eligible for local City of Santa Monica Landmark listing only. The two-story building dates from 1958. It is approximately 100 feet south of the Pier and is setback approximately 80 feet from Ocean Front Walk.

## **Impacts Analysis for Construction Activities**

### **Impact Determination under CEQA**

Construction activities under Alternative 2 would not alter any of the characteristics of the Lifeguard Headquarters that qualify it as a historical resource under CEQA in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. **Therefore, there would be no significant construction impacts on the Lifeguard Headquarters under CEQA.**

## **Impacts Analysis for Operation Activities**

### **Impact Determination under CEQA**

Alternative 2 does not propose any changes that would permanently affect the Lifeguard Headquarters building. The proposed project would not alter any of the characteristics of the features that qualify it as a historical resource under CEQA. **Therefore, there would be no significant operational impacts under CEQA.**

### **2.7.3.4 Construction Features Common Under Both Build Alternatives**

Alternatives 1 and 2 would replace the Pier Bridge in kind and provide for adequate long-term public safety. The following features are common in the construction of both build alternatives:

#### **Construction Staging**

Construction staging for the project is proposed on the north side of the Pier Bridge, between the Colorado Avenue/Ocean Avenue intersection and the Bubba Gump Shrimp restaurant located on the Pier. [refer to Figure 1-8 in Chapter 1]

#### **Types of Activities and Equipment**

Construction activities involve demolition, excavation and grading, new foundation and pile installation, and the erection and removal of falsework.

New concrete bridge piles are anticipated to be approximately 80 feet in depth. The replacement bridge will be designed with cast-in-drilled-hole concrete piles versus driven piles, reducing significant construction vibrations. New foundations footings are expected to be 6 to 8 feet deep.

In addition to demolition of the existing bridge, bridge piles, and abutments at either end, the existing foundations are expected to be demolished to 3 feet below existing ground.

These activities require the use of multiple types of construction equipment, including backhoes with hydraulic rams, dump trucks, concrete trucks, tall cranes (approximately 100 feet high), drilling rigs, and other heavy machinery.

The City will implement an Adjacent Structure Monitoring and Shoring Plan, a minimization measure, to safeguard adjacent historic properties/historical resources, including Looff's Hippodrome and the locally designated Ocean Front Walk buildings, during construction from damage due to vibration, demolition, excavation, and general construction activities.

## **Demolition and Construction Activities Where Bridge and Pier Structures Connect**

Deck boards on the Pier surrounding the west bridge abutment will be removed to accommodate access to the area where the Pier Bridge ties into the pier structure and will be replaced in-kind. Portions of the pier structure that connect it to the existing Pier Bridge west abutment will be detached and removed prior to demolition, to avoid any transfer of vibration between the Pier Bridge and the pier structure. None of the existing piles beneath the deck and supporting the Pier are expected to be removed or replaced. Along the north side of the pier, there is a possibility that additional new piles may be installed to accommodate the additional 4-foot width.

The west abutment of the replacement bridge would engage the Pier deck at approximately the same location as the existing Pier Bridge abutment. The existing west abutment foundation is anticipated to be demolished to 3 feet below grade. This includes the existing concrete stair leading to the Pier deck from Ocean Front Walk/Parking Lot 1 North. The new abutment footing would be approximately 6-8 feet below existing grade and supported on concrete piles approximately 40-50 feet deep.

Other items slated for removal in this area include the deck railing over a portion of the aquarium in addition to the bathrooms, an emergency generator, an electrical vault, and storage space all currently housed under the Pier Bridge.

## **Adjacent Structure Monitoring Plan**

To ensure that construction activities would not result in damage to adjacent resources due to construction activities, an Adjacent Structure Monitoring Plan prepared, by the City, by a qualified and California-licensed Professional Engineer in conjunction with a qualified architectural historian, historic architect, or historic preservation professional is a condition of approval and avoidance measure outlined in detail under CR-3.

## **Temporary Pier Sign Removal**

Under both build alternatives, the Pier Sign will be removed from its current location prior to and for the duration of the construction phase. The implementation of the Pier Sign Preservation Plan to guide the disassembly, transport, storage, repair, and reinstallation of the Pier Sign is a mitigation measure. The Preservation Plan is included in Appendix N of this document.

## **Temporary Pedestrian Ramp**

During demolition of the existing Pier Bridge and the construction of the new replacement bridge, pedestrian access between the Pier and the Colorado Avenue/Ocean Avenue intersection will be maintained through construction of a temporary pedestrian bridge adjacent to and south of the Pier Bridge [refer to Figure 1-8 in Chapter 1]. Public access to the bridge will be from the Colorado Avenue/Ocean Avenue intersection. The temporary pedestrian bridge will be set back approximately 5 feet from the existing Pier Bridge and confined to the City right-of-way. This temporary bridge will be approximately 4 feet from Loeff's Hippodrome and the northernmost building on Ocean Front Walk. The grade of the temporary bridge would be similar to that of the existing Pier Bridge (10%) and 8 feet wide. Because of the proximity of the pedestrian bridge to construction, it would need to be covered and have a solid wall on its north side for public safety.

The cover and wall, which would be constructed of plywood, would appear similar to the temporary walkways that are commonly constructed next to building projects in urban areas.

### Temporary Vehicular Ramp

A temporary ramp for vehicular access to the Pier will be provided from Lot 1 North, in order to maintain access for regular parking, commercial deliveries, and emergency access during the construction phase.

## 2.7.4 Avoidance, Minimization, and/or Mitigation Measures

**Table 2.7-1. Section 106 Effects Analysis under the No-Build Alternative**

Property	APE Map Ref #	Effect Finding	Avoid/Minimize
Palisades Park	1	Not Adverse	N/A
Pier Sign	2	Not Adverse	N/A
Looff's Hippodrome	10	Not Adverse	N/A

N/A = not applicable

**Table 2.7-2. Section 106 Effects Analysis under Alternative 1**

Property	APE Map Ref #	Effect Finding	Avoid/Minimize
Palisades Park	1	Not Adverse	N/A
Pier Sign	2	Not Adverse with conditions	Pier Sign Preservation Plan
Looff's Hippodrome	10	Not Adverse	N/A

N/A = not applicable

**Table 2.7-3. Section 106 Effects Analysis under Alternative 2**

Property	APE Map Ref #	Effect Finding	Avoid/Minimize
Palisades Park	1	Not Adverse	N/A
Pier Sign	2	Not Adverse with conditions	Pier Sign Preservation Plan
Looff's Hippodrome	10	Not Adverse	N/A

N/A = not applicable

**Table 2.7-4. Summary of CEQA Impacts**

Alternative/ Resource	ALT 1 - Construction	ALT 1 - Operation	ALT 2 - Construction	ALT 2 - Operation
Looff's Hippodrome	Mitigated to less than significant	None	Mitigated to less than significant	None
Pier Sign	Mitigated to less than significant	Mitigated to less than significant	Mitigated to less than significant	Mitigated to less than significant
Palisades Park	None	None	None	None
Pier	None	Mitigated to less than significant	Mitigated to less than significant	None

Alternative/ Resource	ALT 1 - Construction	ALT 1 - Operation	ALT 2 - Construction	ALT 2 - Operation
Ocean Front Walk	Mitigated to less than significant	None	Mitigated to less than significant	None
Carousel Park	None	None	None	None
Pier District	Significant and unavoidable	Mitigated to less than significant	Significant and unavoidable	Mitigated to less than significant
Lifeguard HQ	None	None	None	None

### 2.7.4.1 Mitigation Measures

**CR-1.** If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the county coroner shall be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the most likely descendent. At that time, the person who discovered the remains will contact the District 7 Division of Environmental Planning to work with the most likely descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed, as applicable.

**CR-2.** If buried cultural resources, such as flaked or ground stone, historic debris, building foundations, or non-human bone, are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include developing avoidance strategies, capping with fill material, or mitigating impacts through data recovery programs such as excavation or detailed documentation.

**CR-3.** Prior to the start of construction, the City shall prepare an Adjacent Structure Monitoring Plan (Monitoring Plan) to safeguard adjacent historic properties, including the Looff's Hippodrome and the locally designated buildings at 1601–1619 Ocean Front Walk, during construction from damage due to vibration, demolition, excavation, and general construction activities and to mitigate the possibility of settlement due to the removal of soil.

The Monitoring Plan will define protective measures specific to individual historic properties; assign monitoring responsibilities; install and maintain construction fencing for screening and security; and ensure safe public circulation and access during construction. Any protective measures shall be designed and installed in such a way that they are completely reversible with no effects/impacts on historic properties. As part of the Monitoring Plan, prior to construction the project site and adjacent historic properties will be photographed to record their existing pre-construction condition and character-defining features to be kept on file with the publicly accessible property records at the City of Santa Monica.

The Monitoring Plan shall be prepared by a qualified and California-licensed Professional Engineer who is approved by the City of Santa Monica. The Monitoring

Plan shall be developed in conjunction with a qualified architectural historian, historic architect, or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards in their respective field(s), pursuant to 36 CFR 61.

The Monitoring Plan shall include performance standards that specify:

- All new construction work will be performed so that adjacent buildings and resources, including Loeff's Hippodrome and 1601–1619 Ocean Front Walk buildings, will not be adversely affected.
- A qualified and California-licensed Professional Engineer will develop monitoring recommendations, based on preconstruction surveys and photo documentation of existing conditions of adjacent historic properties. Monitoring may include the use of vibration monitors, elevation and lateral monitoring points, crack monitors, or other instrumentation determined necessary to protect adjacent buildings and structures from construction-related damage.
- Vertical and horizontal movement will be determined by a California-licensed land surveyor or qualified professional engineer, and vibration thresholds will be maintained to levels below that which could damage adjacent buildings.
- If thresholds are met, or if noticeable structural damage becomes evident to the project contractor, work shall stop until feasible steps to reduce vibratory levels have been undertaken and minimization measures have been implemented to stabilize adjacent building and prevent construction-related damage. Any damage to historic finish materials at nearby buildings shall be repaired in consultation with the affected property owner and a qualified preservation consultant and, if warranted, in a manner that meets the Secretary of the Interior's Standards.
- If necessary, as determined by a California-licensed Professional Engineer, a shoring plan will be developed to protect adjacent historic properties from excavation or general construction procedures. The shoring plan will be developed by the contractor and submitted to the City of Santa Monica for review.

**CR-4.** Prior to any construction starting, the Pier Sign Preservation Plan shall be prepared and implemented to ensure the protection of the Pier Sign throughout the construction phase.

**CR-5.** All modifications to the Pier deck that are visible will be reconstructed and replaced in kind so as to maintain the historic character of the Pier, with new materials matching the original/old design, color, texture, and other visual qualities. All such work shall be accurately reproduced, based on historical, pictorial, and physical documentation and evidence. A Certificate of Appropriateness, approved by the City of Santa Monica Landmarks Commission, is also required.

**CR-6.** To ensure a compatible replacement bridge avoids significant adverse effects to adjacent historic properties and their historic setting, the new bridge design shall follow guidance and direction provided in the Pier District Design Guidelines. In consideration



of the proportions, window placement, and alignment with elements of Looff's Hippodrome and surrounding historic properties, the following features shall be studied: landings and horizontal structure lines; building openings; visible joint lines and glazing mullions.

## **2.7.5 Conclusions**

Due to the concentration of historic properties within the proposed project area, most conceivable alternatives would result in adverse effects on the existing resources. However, with the inclusion of the proposed mitigation measures, the proposed build alternatives mitigate any possible impacts to less-than-significant levels, thus retaining the historic character of the individual properties and their common historic setting.

As discussed in the sections above, a Pier Sign Preservation Plan would be required under both build alternatives to mitigate for potential impacts on the Pier Sign. The Pier Sign would retain its integrity of materials and workmanship with the incorporation of a Pier Sign Preservation Plan as described in CR-4. The Preservation Plan requires the Historic Preservation Specialist to document the Pier Sign prior to construction to record existing conditions and details of the Pier Sign's character-defining features and components (e.g., neon gas tubing, electrical wiring, metal connections, painted surfaces) with copies to be attached to the Pier Sign Report, as described in the Pier Sign Preservation Plan (see Appendix N). Potential adverse impacts on the Pier Sign resulting from physical damage during construction would be minimized through the implementation of the Pier Sign Preservation Plan. Potential adverse impacts resulting from alterations to extend the support columns as well as anticipated repair and maintenance actions would be minimized through implementation of the Pier Sign Preservation Plan as a non-standard condition. With mitigation measure CR-3 implemented, impacts on the Pier Sign would be less than significant.

Under both build alternatives a structural modification of the Santa Monica Pier would occur; however, with the inclusion of mitigation measure CR-5, neither build alternative would alter any of the characteristics that qualify it for designation as a City of Santa Monica landmark in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The Pier's Landmark designation sets forth the level of review required for different types of alterations to the Pier deck and structures placed on it. Pier Design Guidelines have also been established to maintain the Pier's historic character. The City of Santa Monica's Landmarks Commission would follow established procedures through the Certificate of Appropriateness process and confirm conformance with the Standards and the Pier Design Guidelines. With the measures stated above, impacts on the Santa Monica Pier would be less than significant.

Under either alternative, demolition of the existing Pier Bridge would result in a construction impact on the eligible Pier District due to the removal of this contributing resource. Its replacement would have substantially the same slope, alignment, and open massing based on conceptual diagrams for both build alternatives. Under mitigation measure CR-6, the new bridge design would follow guidance and direction provided in the Pier District Design Guidelines. After measures described in CR-6 are implemented, operational impacts would be less than significant.

### 2.7.6 Cumulative Impacts

**Resource Study Area:** The Resource Study Area (RSA) for cumulative impacts includes the project footprint (Pier Bridge) and the area immediately surrounding it and adjacent historic resources. The RSA was established to take into account the scale of the project and its unique range of spatial and temporal conditions.

The Santa Monica Pier Bridge connects the historic urban downtown and adjacent public park above the high bluffs to the public beachfront area and Pacific Ocean below. In doing so, it crosses from a major intersection at Ocean and Colorado Avenues over Pacific Coast Highway and other secondary roadways. Spatial conditions encompass a notable range of natural and manmade resources; varying geographic features, topography, and landscapes; and a large number of public and private land uses. The RSA also intersects with multiple scenic view corridors.

Some of the earliest development in Santa Monica and within the region occurred in the area encapsulated by the RSA with many of the present-day uses and viewsheds established long ago. Embodying the last 130 years of local and regional history, the Santa Monica Pier and coastal access symbolize the City's origins and continuous functioning as a beach resort community and tourist destination. The collection of historic resources on and around the Pier are also associated with the community's longtime appreciation of the resources' beachfront location. These historic uses and their natural setting are evident in the present day and are expected to continue to be resources in the future.

#### 2.7.6.1 Affected Environment

**Existing Conditions within RSA:** Much of the RSA overlaps with busy sections of downtown and beachfront that have continuously expanded and seen their intersecting uses intensify over time. The area is characterized by its mix of infrastructure, recreational uses, commercial uses, institutional uses, public open space, tourism, and historic features.

The character and combination of uses at the east Bridge approach at Ocean Avenue differ from those at the west end of the Bridge, where it passes over Ocean Front Walk and terminates on the Pier deck. At the east end, the historic character of the Pier Sign and adjacent Palisades Park announce the area's legacy as an outdoor leisure destination enriched by expansive views toward the historic Pier and Pacific Ocean. The location is also characterized by overlapping circulation patterns and types of transportation due to the prominent intersection of Ocean and Colorado Avenues and primary Pier access. Although the west end of the Bridge is also subject to overlapping circulation patterns, its beachfront location is primarily a terminus for Pier and beach visitors and thus is characterized by large areas dedicated to parking; recreational uses including outdoors events on and off the Pier; slow moving and loitering pedestrians; the amusement attractions at Pacific Park; and the ever-present ocean waves and daily shifting tides. Pier and beachfront visitors have the benefit of near 360-degree views that take in the Pacific Ocean, the coastline, and the distinctive seaside bluffs with Palisades Park above.

Seven historic resources exist within the RSA. These properties embody distinct periods of modern Santa Monica and regional history and, importantly, are all associated with the area's significance as an early and continuous site of recreation and tourism. One building, Loeff's

Hippodrome located at 276 Santa Monica Pier, is a National Historic Landmark (NHL) and is listed in the National Register with a period of significance 1900-1924. Two properties were previously determined eligible for listing in the National Register: the Santa Monica Pier Sign located at the intersection of Colorado Avenue and Ocean Avenue, under Criteria A and C at the local level of significance and period of significance 1940-1944; and Palisades Park located at 1415 Ocean Avenue, under Criterion A at the local level of significance with a period of significance 1892-1944.

Three properties are listed local landmarks and one is eligible as a local historic district: the Santa Monica Pier, Ocean Front Walk buildings and parcel, Carousel Park parcel, and the Santa Monica Pier District. All of these historic resources are within the immediate vicinity of the Santa Monica Pier Bridge, which is proposed to be demolished and replaced in this project.

Since the City's early attempts in the 1890s at becoming a shipping port, multiple waves of large-scale infrastructure, real estate, recreation, and tourism projects have contributed to current conditions across the RSA. Historically, the greatest impacts to historic resources located within the RSA have been the result of shifts in transportation technologies, specifically the evolution—and, hence, replacement of—rail and streetcar with automobile and now with multi-modal transit infrastructure. Other impacts were the direct result of shifts in the general economy (e.g., Great Depression) as well as changing trends in tourism and recreation (e.g., ballroom dancing, outdoor fitness, fishing).

Some of the most notable events include:

- 1891** Santa Monica Canyon Line railroad route built as an extension of the Santa Monica Air Line. Route runs from a station located in ravine southeast of intersection at Ocean and Colorado through a tunnel beneath the bluffs toward the beach where it turns to parallel the shore for 4 miles before terminating at the Santa Monica Long Wharf
- 1909** Municipal Pier opens
- 1916** Loeff's Pleasure Pier opens on the south side of the Municipal Pier; at the Pier's eastern end, Loeff's Hippodrome is the first amusement attraction constructed
- 1921** Reconstruction of original but deteriorated concrete Municipal Pier in its present-day wood timber construction
- 1924** The massive Spanish-style La Monica Ballroom opens at the west end of Loeff's Pleasure Pier
- 1927** Equally massive and eclectic Chalet-style Deauville Beach Club opens north of the Pier
- 1932** California Incline opens to car traffic, linking Ocean Avenue at the top of the bluffs with Pacific Coast Highway below
- 1934** Blue Streak Racer rollercoaster and other amusement attractions on Loeff's Pleasure Pier close due to decline in customers
- Santa Monica Canyon Line railroad route is abandoned
- Breakwater constructed just beyond Pier to create yacht harbor

<b>1936</b>	McClure Tunnel replaces Canyon Line railroad tunnel in order to connect Pacific Coast Highway (State Route 1) to western terminus of Olympic Boulevard Removal of original rooftop onion dome and nine small rooftop turrets on Loeff's Hippodrome and conversion of the majority of Loeff's Pleasure Pier into parking
<b>1939</b>	Replacement of original at-grade Pier approach with present-day Pier Bridge as part of a Public Works Administration project to improve traffic conditions along Ocean Avenue; Appian Way is realigned to run beneath the new Bridge
<b>1940</b>	Installation of the Santa Monica Pier Sign
<b>Late 1940s</b>	Introduction of public parking lot on beach immediately north of Pier and south of Deauville Beach Club
<b>1955</b>	Olympic Boulevard east of McClure Tunnel is renamed Santa Monica Freeway; it is assigned the I-10 number two years later
<b>1963</b>	Demolition of La Monica Ballroom
<b>1964</b>	Severe fire damage to and subsequent demolition of Deauville Beach Club
<b>1973</b>	Demolition of the Pier thwarted by community's "Save Our Pier Forever" initiative
<b>1976</b>	Designation of Santa Monica Pier and Loeff's Hippodrome as City Landmarks
<b>1981</b>	Repair of vandalized Pier Sign including replacement of neon tubing
<b>1982</b>	Severe storm sweeps away breakwater; it is not replaced
<b>1983-88</b>	Restoration and partial reconstruction of Pier to repair 1983 storm damage, including addition of concrete substructure; City establishes Santa Monica Pier Restoration Corporation to oversee work and future Pier management; adoption of Pier Design Guidelines
<b>1984-87</b>	Introduction of Carousel Park, including northeast extension of Pier deck in front of Loeff's Hippodrome and creation of Aquarium space below Complete interior and exterior rehabilitation of Loeff's Hippodrome and subsequent designation as a National Historic Landmark
<b>1994</b>	Rehabilitation of Palisades Park including new park furniture, amenities, access improvements, drought tolerant plantings, and updated public restrooms
<b>1996</b>	Pacific Park amusement attractions as well as new retail, food, and entertainment establishments open on the Pier
<b>2005</b>	Santa Monica City Council approves Civic Center Specific Plan Final Environmental Impact Report, which includes Colorado Esplanade, Palisades Garden Walk (later renamed Tongva Park), and Ken Genser Park in front of the Civic Center
<b>2007</b>	Designation of Palisades Park as a City Landmark
<b>2010</b>	Reinforcement of bluffs below Palisades Park and above Pacific Coast Highway as part of a stabilization project to address erosion
<b>2012</b>	Designation of Santa Monica Pier Sign as a City Landmark

<b>2013</b>	Completion of Tongva Park northeast of intersection at Ocean and Colorado Avenues
<b>2015</b>	Work to reinforce, widen, and seismically strengthen California Incline and stabilization of adjacent bluffs beneath Palisades Park
<b>2016</b>	Designation of 1601-1613 Ocean Front Walk parcel as City Landmark Completion of Colorado Esplanade project to improve pedestrian access between newly completed Santa Monica Expo light rail Metro station and the Pier Bridge
<b>2018</b>	Designation of Carousel Park parcel as a City Landmark Determination of Santa Monica Pier District as eligible City historic district City of Santa Monica Local Coastal Program Update Land Use Plan establishes scenic view corridors, several of which incorporate the Pier and nearby historic resources
<b>2019</b>	Installation of Clean Beaches SWIP subterranean stormwater retention facility at Deauville site with parking above
<b>2020</b>	Exterior and interior rehabilitation of two privately-owned historic buildings on Ocean Front Walk Landmark parcel

Looking towards the future, several planning documents recently released by the City highlight the economic and public value of the Pier and surrounding historic resources. Through the official adoption of these plans, policies were enacted to protect visibility of the historic Pier through:

- Creation of scenic view corridors
- Incorporation of historic preservation goals and objectives into general land use practices
- Recent update of the City's Historic Resource Inventory.

Within the near future, completion of the proposed Pier Bridge project is expected prior to the 2028 Summer Olympic Games when the beach is to be used for volleyball and surfing events. This would contribute to a sharp albeit temporary increase in visitation of historic resources within the RSA. For reference, currently the Pier draws approximately eight million visitors annually.

### 2.7.6.2 Environmental Consequences

**Potential Impacts within RSA:** Under CEQA, the demolition of a contributing district resource (the Pier Bridge) would result in a potential impact under either alternative. Either of the proposed designs will replace the bridge, improve ADA-access and general circulation. Under Alternatives 1 and 2, current ADA-compliant access is retained and there are no impacts on historic resources within the RSA beyond the improved seismic performance of the Pier Bridge.

**Cumulative Impact Potential:** The present-day condition and future sustainability of the concentration of historic resources within the RSA have benefited from recent public investment in infrastructure, pedestrian circulation and safety, and public amenities including open green space. Specifically, projects linking the Expo Line light rail station and Civic Center to the Pier prioritized pedestrian use without compromising the historic integrity of adjacent historic resources by maintaining scale and historic view sheds while accommodating a sophisticated mix

of uses. The California Incline replacement project also accomplished transportation infrastructure improvements while accommodating pedestrian circulation without adverse effects to adjacent historic resources (e.g., Palisades Park). These projects should also help mitigate potential effects to historic resources associated with the anticipated surge in Pier visitation during the 2028 Olympic Games.

The proposed Pier Bridge replacement project continues this trajectory by improving public safety and addressing pedestrian access.

### **2.7.6.3 Avoidance, Minimization, and/or Mitigation Measures**

With each large-scale infrastructure project within the RSA, the integrity of the historic context has been incrementally diminished such that today greater efforts are required to preserve and maintain the integrity of each resource individually as well as the group of resources collectively with special attention given to the relationship between historic character, tourism, urban and architectural design, and circulation patterns. Minimization measures CR-1 through CR-5, as detailed above, would be implemented to minimize or mitigate impacts. Where anticipated future projects could involve the demolition or alteration of historically significant resources, this would constitute a significant and unavoidable impact. Compliance with land-use policies like the City's Historic Preservation Element and Land Use and Circulation Element of the General Plan as well as the Coastal Land Use Plan Update would minimize or mitigate impacts.

## PHYSICAL ENVIRONMENT

### 2.8 Hydrology and Floodplain

#### 2.8.1 Regulatory Setting

Executive Order (EO) 11988 (Floodplain Management) directs all federal agencies to refrain from conducting, supporting, or allowing actions in floodplains unless it is the only practicable alternative. The Federal Highway Administration (FHWA) requirements for compliance are outlined in 23 Code of Federal Regulations (CFR) 650 Subpart A.

To comply, the following must be analyzed:

- The practicability of alternatives to any longitudinal encroachments.
- Risks of the action.
- Impacts on natural and beneficial floodplain values.
- Support of incompatible floodplain development.
- Measures to minimize floodplain impacts and to preserve/restore any beneficial floodplain values affected by the project.

The base floodplain is defined as “the area subject to flooding by the flood or tide having a one percent chance of being exceeded in any given year.” An encroachment is defined as “an action within the limits of the base floodplain.”

#### 2.8.2 Affected Environment

##### 2.8.2.1 Floodplains

The City of Santa Monica is nearly fully urbanized, including an extensive stormwater drainage system. The city lacks open surface areas and has only a few open concrete drainage channels. As a result, the city does not have any natural floodplains remaining within its boundaries. A Location Hydraulic Study was prepared for the project and approved on April 26, 2022, which can be found within Appendix O of this environmental document.

The Federal Emergency Management Agency prepares flood insurance rate maps that indicate the locations of base floodplains that are subject to inundation by the 1 percent-annual-chance flood. The 1 percent-annual-chance flood (100-year flood), also known as the *base flood*, is a flood that has a 1 percent chance of being equaled or exceeded in any given year. The base floodplain is the area that is subject to the flooding by the 1 percent-annual-chance flood. The base flood elevation is the water-surface elevation of the 1 percent-annual-chance flood.

The entire city falls within Flood Insurance Rate Map 06037C1590F (updated April 2021) as seen on Figure 2.8-1. According to the map, both build alternatives require construction that falls under the definitions for Zone VE (EL 15), Zone X (Other Flood Areas), or Zone X (Other Areas). The definitions for these three zones are as follows:



- Zone VE: Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves.
- Zone X (Other Flood Areas): Areas of a 0.2 percent-annual-chance flood; areas of a 1 percent-annual-chance flood, with average depths of less than 1 foot or drainage areas of less than 1 square mile; and areas protected by levees from a 1 percent-annual-chance flood.
- Zone X (Other Areas): Areas determined to be outside the 0.2 percent-annual-chance floodplain.

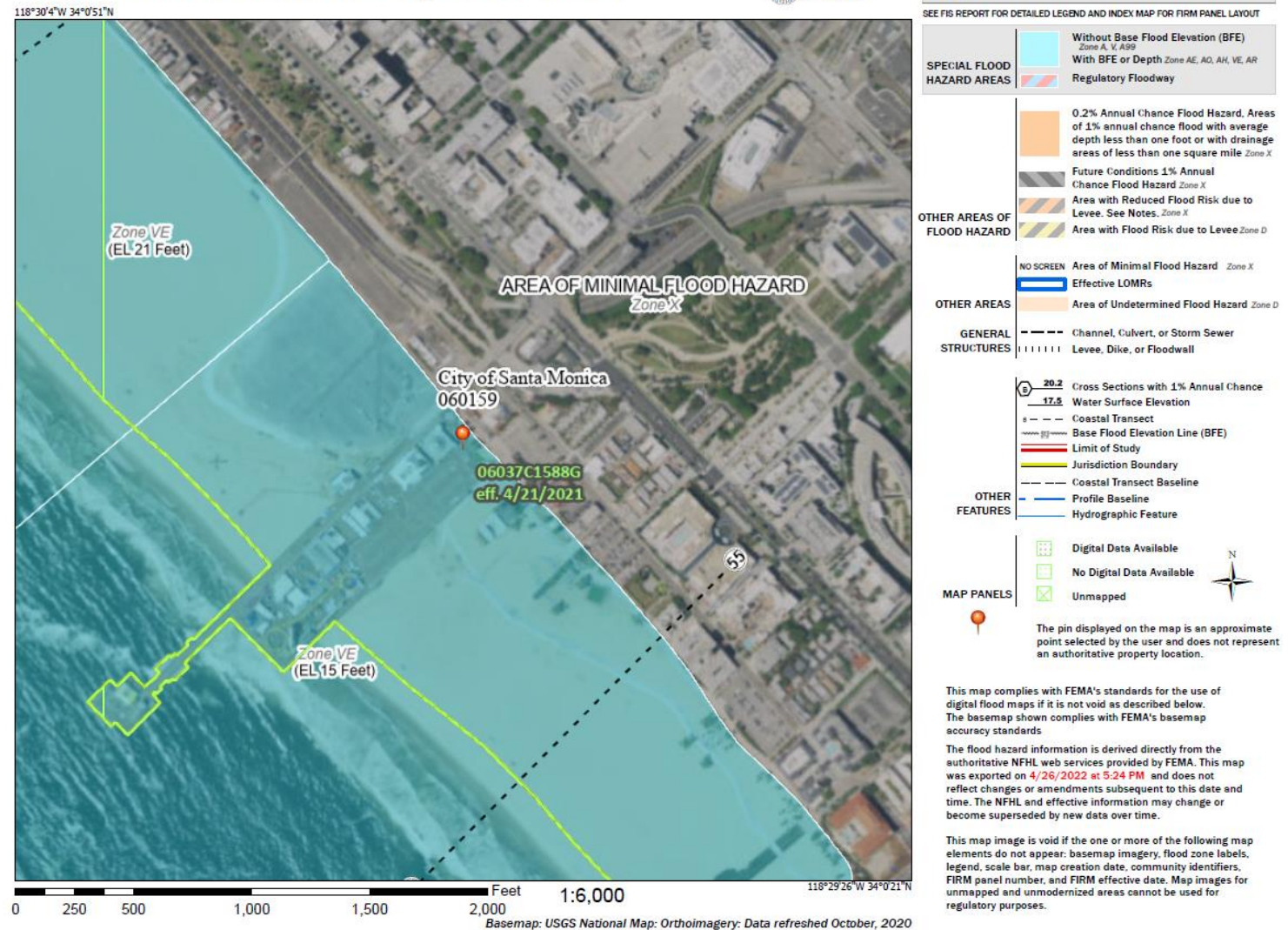
According to the tsunami inundation map for the Beverly Hills quadrangle (see Figure 2.8-2), a portion of both build alternatives would be located within a tsunami inundation area.

### **2.8.2.2 Groundwater**

The project site for both build alternatives is within the Santa Monica basin of the Los Angeles groundwater basin. This basin is divided into several subbasins. The project site is within the Coastal subbasin, as shown on Figure 2.8-3. Groundwater in this area is affected by the Inglewood fault. Groundwater levels differ on each side of the fault.

The southern portion of the pier is over the Pacific Ocean. Because of the location of the project site, a portion of which extends onto land, the groundwater depth is anticipated to be at or very near mean sea level. The anticipated groundwater flow is to the southwest, toward the Pacific Ocean.

## National Flood Hazard Layer FIRMette

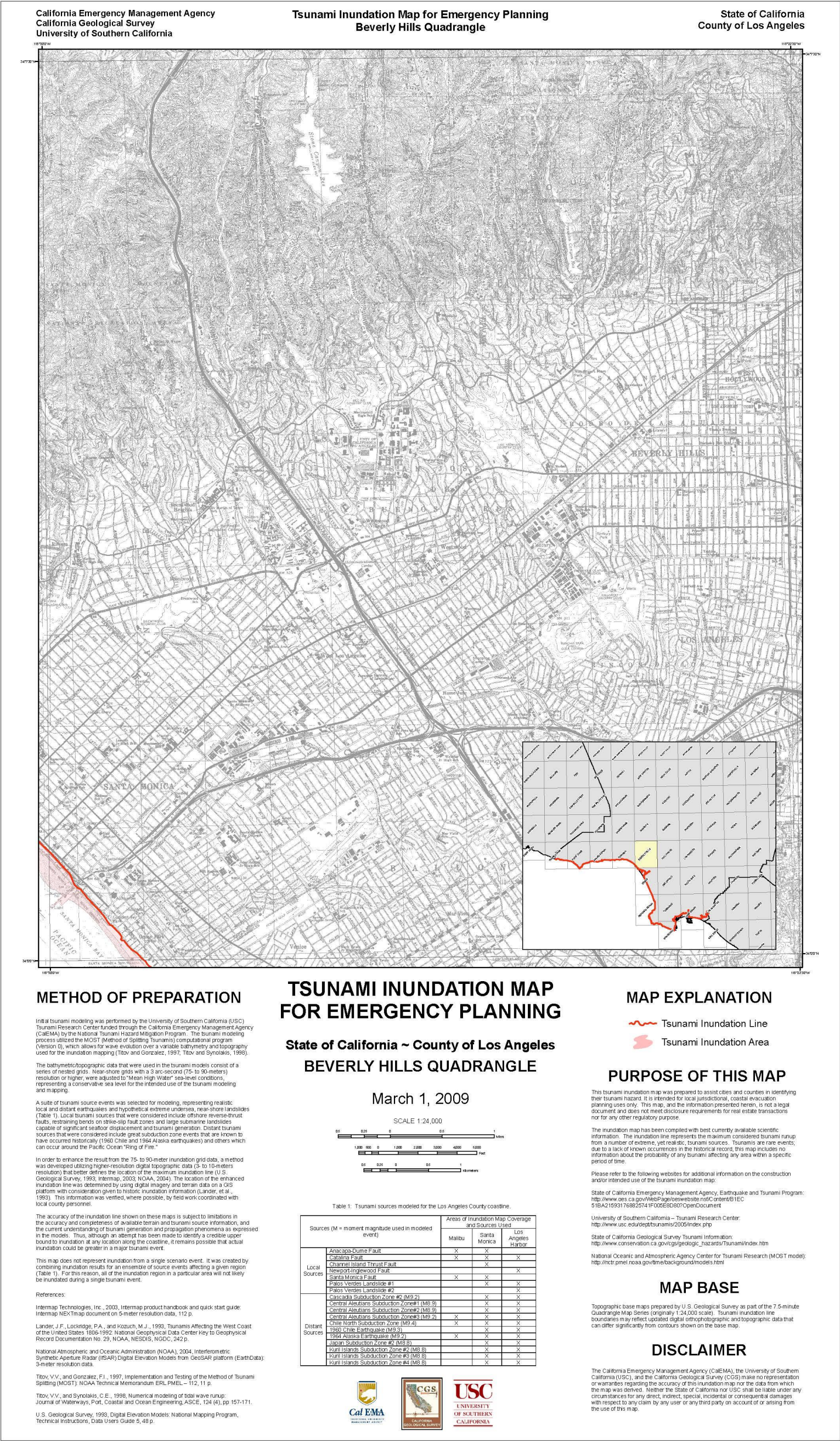


Source: FEMA 2022

Figure 2.8-1. Flood Insurance Rate Map of Project Site

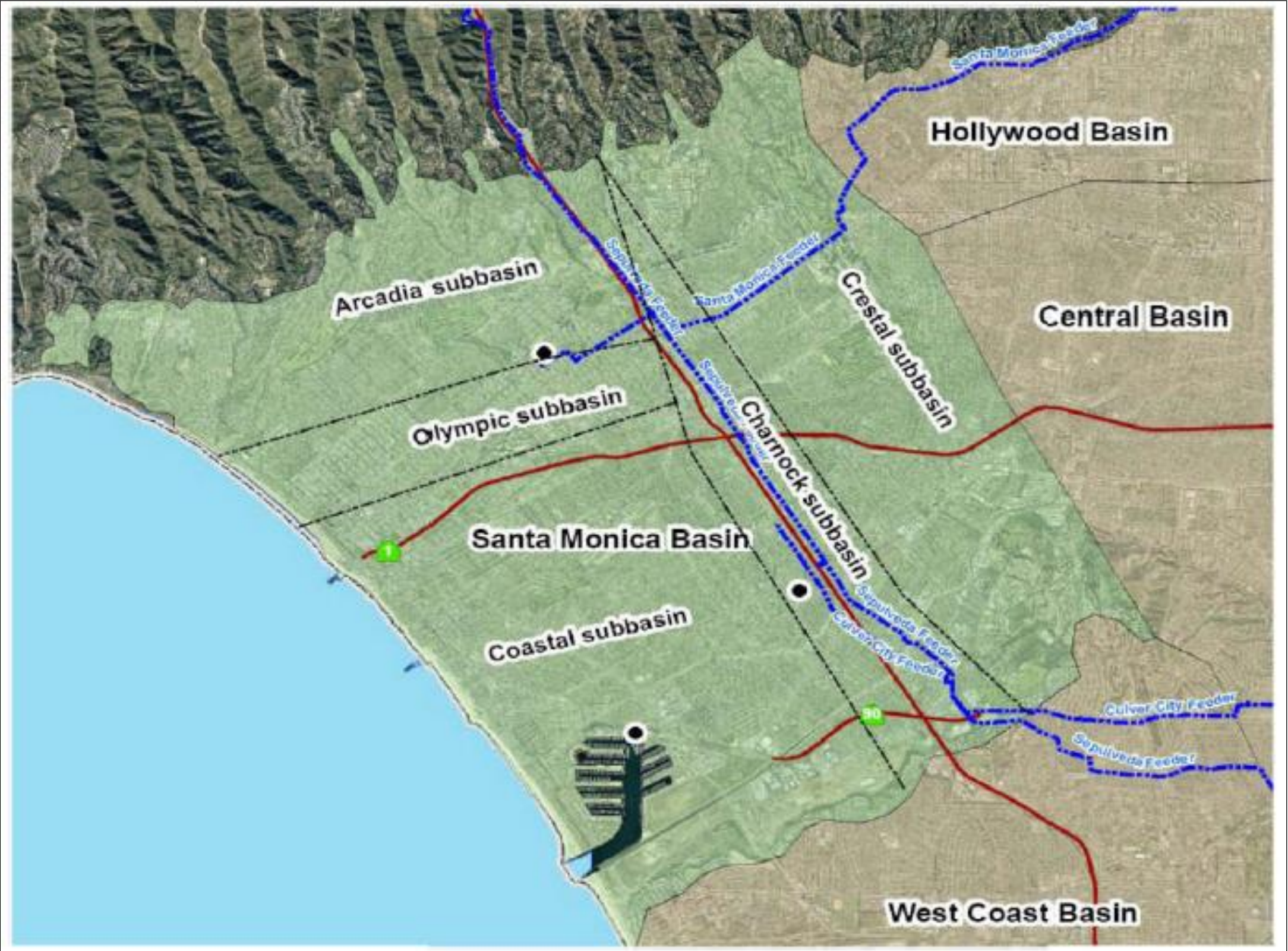
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Source: City of Santa Monica 2010.

Figure 2.8-3. Main Santa Monica Basins and Subbasins

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### **2.8.3 Environmental Consequences**

#### **2.8.3.1 No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. Therefore, there would be no impacts on existing hydrologic conditions or floodplains.

#### **2.8.3.2 Build Alternatives**

##### **Construction and Operational Impacts**

Both proposed build alternatives would build a replacement bridge within the same alignment as the existing bridge, and would be located within Zone VE (EL 15), Zone X (Other Flood Areas), and Zone X (Other Areas). Zone VE is a coastal area with a 1% or greater chance of flooding and an additional hazard associated with storm waves. In addition, both build alternatives would be located within a tsunami inundation area because of the proximity to the ocean. However, historically, California has suffered little tsunami damage. Predictive models for distant tsunamis indicate that wave heights of 10 to 17 feet (3 to 5 meters) are exceeded, on average, once every 500 years along Santa Monica Bay (McCulloch 1985). Furthermore, both Pier Bridge alternatives would be elevated on reinforced concrete columns, which reduce the threat that tsunami-generated waves pose.

The both proposed build alternatives will replace the existing bridge in kind and as such would not alter or change existing hydrologic conditions during either construction or operation. Therefore, with respect to flooding, no adverse impacts under NEPA or significant impacts under CEQA are expected.

### **2.8.4 Avoidance, Minimization, and/or Mitigation Measures**

No adverse impacts under NEPA or significant impacts under CEQA related to hydrology would occur under either build alternative because the project would not alter or change existing hydrologic conditions during either construction or operation. Therefore, no avoidance, minimization, or mitigation measures are required.

### **2.8.5 Cumulative Impacts**

#### **2.8.5.1 Affected Environment**

**Resource Study Area (RSA):** The project site lies in the west area of the Santa Monica Groundwater Basin, which sits in the western section of the coastal plain of Los Angeles County. An appropriate RSA for hydrology and floodplains has been identified as the portion of the Santa Monica Coastal Basin that encompasses the project limits, from the intersection of Colorado Avenue and Ocean Avenue to the farthest extent of any downstream flows. This study area is appropriate because it contains the project site and likely downstream water flow that would lead into the Pacific Ocean.

**Existing Conditions within the RSA:** The entire city of Santa Monica falls within Flood Insurance Rate Map 06037C1590F. Both build alternatives require construction that falls under

Zone VE, Zone X (Other Flood Areas), and Zone X (Other Areas). Zone A is a designated 100-year flood hazard area and exists within the project site because of project site's proximity to the ocean, which makes it susceptible to flooding during storms or tsunamis. In addition, both build alternatives are located within a tsunami inundation area because of their proximity to the ocean.

### 2.8.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within the RSA:** Both build alternatives are located within a 100-year floodplain hazard area and within a tsunami inundation area. However, historically, California has suffered little tsunami damage. Predictive models for distantly generated tsunamis indicated that wave heights of 10 to 17 feet (3 to 5 meters) are exceeded on an average of once every 500 years along the Santa Monica Bay (McCulloch 1985). Furthermore, both Pier Bridge alternatives would be elevated, which would reduce the potential for damage from tsunami-generated waves.

**Current and Reasonably Foreseeable Projects within the RSA:** Related projects within the area would also be located within a 100-year floodplain hazard area and within a tsunami inundation area. However, as stated above, California has suffered little tsunami damage. Any future projects would also need to comply with local, state, and federal guidelines and regulations pertaining to building within the 100-year floodplain hazard area.

**Cumulative Impact Potential:** By complying with the required permits and appropriate measures related to building within the 100-year floodplain, as well as being elevated, the project would not contribute to a cumulatively considerable impact.

### 2.8.5.3 Avoidance, Minimization, and/or Mitigation Measures

No adverse impacts under NEPA or significant impacts under CEQA related to hydrology would occur under either build alternative because the project would not alter or change existing hydrologic conditions during either construction or operation. Therefore, no avoidance, minimization, or mitigation measures are required.

## 2.9 Water Quality and Stormwater Runoff

### 2.9.1 Regulatory Setting

#### 2.9.1.1 Federal Requirements: Clean Water Act

In 1972, Congress amended the Federal Water Pollution Control Act, making the addition of pollutants to waters of the United States (U.S.) from any point source<sup>1</sup> unlawful, unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. This act and its amendments are known today as the Clean Water Act (CWA). Congress has amended the act several times. In the 1987 amendments, Congress directed dischargers of stormwater from municipal and industrial/construction point sources to comply with the NPDES permit scheme. The following are important CWA sections:

- Sections 303 and 304 require states to issue water quality standards, criteria, and guidelines.
- Section 401 requires an applicant for a federal license or permit to conduct any activity that may result in a discharge to waters of the U.S. to obtain certification from the state that the discharge will comply with other provisions of the act. This is most frequently required in tandem with a Section 404 permit request (see below).
- Section 402 establishes NPDES, a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the U.S. Regional Water Quality Control Boards (RWQCBs) administer this permitting program in California. Section 402(p) requires permits for discharges of stormwater from industrial/construction point sources as well as municipal separate storm sewer systems (MS4s).
- Section 404 establishes a permit program for the discharge of dredged or fill material into waters of the U.S. This permit program is administered by the U.S. Army Corps of Engineers (USACE).

The goal of the CWA is “to restore and maintain the chemical, physical, and biological integrity of the nation’s waters.”

The USACE issues two types of 404 permits: General and Individual. There are two types of General permits: Regional and Nationwide. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects. Ordinarily, projects that do not meet the criteria for a Regional or Nationwide Permit may be permitted under one of the USACE’s Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Individual permits, the USACE decision to approve is based on compliance with U.S. Environmental Protection Agency (U.S. EPA) Section 404(b)(1) Guidelines (Guidelines) (40 Code of Federal Regulations [CFR] Part 230) and whether the permit approval is in the public interest. The Guidelines, which were developed by the U.S. EPA in conjunction with the USACE, allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have less

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<sup>1</sup> A point source is any discrete conveyance such as a pipe or a man-made ditch.

adverse effects. The Guidelines state that the USACE may not issue a permit if the least environmentally damaging practicable alternative (LEDPA) to the proposed discharge would have lesser effects on waters of the U.S. and no other significant adverse environmental consequences. According to the Guidelines, documentation is needed to confirm that avoidance, minimization, and compensation measures have been followed and in that order. The Guidelines also restrict permitting activities that violate water quality or toxic effluent<sup>2</sup> standards, jeopardize the continued existence of listed species, violate marine sanctuary protections, or cause “significant degradation” to waters of the U.S. In addition, every permit from the USACE, even if not subject to the Guidelines, must meet general requirements (see 33 CFR 320.4). A discussion of the LEDPA determination, if any, is included in the Wetlands and Other Waters section.

### **2.9.1.2 State Requirements: Porter-Cologne Water Quality Control Act**

California’s Porter-Cologne Water Quality Control Act (Porter-Cologne Act), enacted in 1969, provides the legal basis for water quality regulation within California. The act requires a “report of waste discharge” for any discharge of waste (liquid, solid, or gaseous) to land or surface water that may impair the beneficial uses of the surface water and/or groundwater of the state. The Porter-Cologne Act, which predates the CWA, regulates discharges to waters of the state. Waters of the state include more types of water than waters of the U.S., such as surface water and groundwater, which are not considered waters of the U.S. In addition, the act prohibits discharges of “waste,” as defined. (The definition is broader than the CWA definition of pollutant.) Discharges under the Porter-Cologne Act are permitted by waste discharge requirements (WDRs) and may be permitted even when the discharge is already permitted or exempt under the CWA.

The State Water Resources Control Board (SWRCB) and RWQCBs are responsible for establishing the water quality standards (objectives and beneficial uses) required by the CWA and regulating discharges to ensure compliance with the water quality standards. Details about water quality standards in a project area are included in the applicable RWQCB basin plan. In California, RWQCBs designate beneficial uses for all water body segments in their jurisdictions and then set the criteria necessary to protect those uses. As a result, the water quality standards developed for particular water segments are based on the designated use and vary, depending on that use. In addition, the SWRCB identifies waters that fail to meet the standards for specific pollutants. These waters are then state listed in accordance with CWA Section 303(d). If a state determines that waters are impaired for one or more constituents and the standards cannot be met through point-source or non-point-source controls (e.g., NPDES permits or WDRs), then the CWA requires the establishment of total maximum daily loads (TMDLs). TMDLs specify allowable pollutant loads from all sources (point, non-point, and natural) for a given watershed.

### **2.9.1.3 State Water Resources Control Board and Regional Water Quality Control Boards**

The SWRCB administers water rights, sets water pollution control policies, and issues water board orders on matters of statewide application. It also oversees water quality functions throughout the state by approving basin plans, TMDLs, and NPDES permits. RWQCBs are

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<sup>2</sup> The U.S. EPA defines “effluent” as “wastewater, treated or untreated, that flows out of a treatment plant, sewer, or industrial outfall.”

responsible for protecting beneficial uses of water resources within their regional jurisdiction. The RWQCBs use their planning, permitting, and enforcement authority to meet this responsibility.

#### **2.9.1.4 National Pollutant Discharge Elimination System Program**

##### **Municipal Separate Storm Sewer Systems**

Section 402(p) of the CWA requires the issuance of NPDES permits for five categories of stormwater discharges, including discharges involving MS4s. An MS4 is defined as “any conveyance or system of conveyances (e.g., roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, human-made channels, storm drains) owned or operated by a state, city, town, county, or other public body having jurisdiction over stormwater designed or used for collecting or conveying stormwater.” The SWRCB has identified Caltrans as owner/operator of an MS4 under federal regulations. Caltrans MS4 permit covers all Caltrans rights-of-way, properties, facilities, and activities in the state. The SWRCB or the RWQCB issues NPDES permits for 5 years. Permit requirements remain active until a new permit has been adopted.

Caltrans MS4 Permit, Order No. 2012-0011-DWQ (adopted on September 19, 2012, and effective on July 1, 2013), as amended by Order No. 2014-0006-EXEC (effective January 17, 2014), Order No. 2014-0077-DWQ (effective May 20, 2014), Order No. 2015-0036-EXEC (conformed and effective April 7, 2015), and Order No. 2017-0026-EXEC (effective January 25, 2017), has three basic requirements:

1. Caltrans must comply with the requirements of the Construction General Permit (see below);
2. Caltrans must implement a year-round program in all parts of the state to effectively control stormwater and non-stormwater discharges; and
3. Caltrans stormwater discharges must meet water quality standards through implementation of permanent and temporary (i.e., construction-period) best management practices (BMPs) to the maximum extent practicable as well as other measures the SWRCB determines to be necessary to meet the water quality standards.

To comply with the permit, Caltrans developed the Statewide Stormwater Management Plan (SWMP) to address stormwater pollution controls related to highway planning, design, construction, and maintenance activities throughout California. The SWMP assigns responsibilities within Caltrans for implementing stormwater management procedures and practices as well as training, public education and participation, monitoring and research, program evaluation, and reporting activities. The SWMP describes the minimum procedures and practices Caltrans uses to reduce pollutants in stormwater and non-stormwater discharges. It outlines procedures and responsibilities for protecting water quality, including the selection and implementation of BMPs. The proposed project would be programmed to follow the guidelines and procedures outlined in the latest SWMP to address stormwater runoff.

##### **Construction General Permit**

The Construction General Permit, Order No. 2009-0009-DWQ (adopted on September 2, 2009, and effective on July 1, 2010), as amended by Order No. 2010-0014-DWQ (effective February

14, 2011) and Order No. 2012-006-DWQ (effective on July 17, 2012), regulates stormwater discharges from construction sites that result in a disturbed soil area (DSA) of 1 acre or more and/or smaller areas that are part of a larger common plan of development. By law, all stormwater discharges associated with construction activities where clearing, grading, and excavation result in soil disturbance of at least 1 acre must comply with the provisions of the General Construction Permit. Construction activities that result in soil disturbances of less than 1 acre are subject to this Construction General Permit if the potential exists for significant water quality impairment, as determined by the RWQCB, from the activities. Operators of regulated construction sites are required to develop Stormwater Pollution Prevention Plans (SWPPPs); implement sediment, erosion, and pollution prevention control measures; and obtain coverage under the Construction General Permit.

The Construction General Permit separates projects into Risk Levels 1, 2, or 3. The risk levels, which are determined during the planning and design phases, consider the potential for erosion and the transport of sediment to receiving waters. The applicable requirements are based on the determined risk level. For example, a project at Risk Level 3 (highest risk) would require pH and turbidity monitoring before and after construction as well as aquatic biological assessments during specified seasonal windows. For all projects that are subject to the permit, applicants are required to develop and implement an effective SWPPP. In accordance with Caltrans SWMP and Standard Specifications, a Water Pollution Control Program (WPCP) is necessary for projects with a DSA of less than 1 acre.

## **Section 401 Permitting**

Under Section 401 of the CWA, any project requiring a federal license or permit that may result in a discharge to a water of the U.S. must obtain Section 401 certification, which certifies that the project will be in compliance with state water quality standards. The most common federal permits that trigger Section 401 certification are the CWA Section 404 permits issued by the USACE. Section 401 certifications are obtained from the appropriate RWQCB, depending on the project location, and required before the USACE issues a Section 404 permit.

In some cases, the RWQCB may have specific concerns regarding discharges associated with a project. As a result, the RWQCB may issue a set of requirements, known as WDRs, under the State Water Code (Porter-Cologne Act). The WDRs define actions that are to be taken to protect or benefit water quality (e.g., effluent limitations, monitoring, plan submittals). WDRs can be issued to address issues related to both the permanent and temporary discharges of a project.

## **2.9.2 Affected Environment**

### **2.9.2.1 Watershed**

The project site is located within the Santa Monica Bay watershed (Figure 2.9-1) (Los Angeles County Department of Public Works 2016). The Santa Monica Bay watershed contains 27 subwatersheds, which are separated into seven jurisdictions. Much of the terrain in the northern portion of the watershed is rugged open space, with many canyons that carry runoff directly to the bay. The mid- and southern portions of the watershed are more urbanized and include portions of Los Angeles, Santa Monica, El Segundo, Manhattan Beach, Redondo Beach, Palos Verdes Estates, and Rancho Palos Verdes. This area is highly developed with a network of

storm drains that carry flows to the Pacific Ocean and Santa Monica bay. The project site is in the central Santa Monica Bay subwatershed (City of Los Angeles 2016).

### 2.9.2.2 Receiving Surface Waters

There are no surface waters within the project site, which is approximately 0.15 mile west of Santa Monica Bay and more than 3.5 miles north of Marina del Rey. The project site is served by a series of underground storm drains and water quality treatment features (e.g., catch basins, clarifiers, continuous deflective separator units [hydrodynamic separator units (HSUs)]) (Figure 2.9-2) (City of Santa Monica 2016b). The project site ultimately discharges through the City's Pier Drain to Santa Monica Bay. The Pier Drain is one of Santa Monica's largest storm drains. The Pier Storm Drain, a 60-inch diameter storm drain, is located immediately south of the downtown area and outfalls to the Santa Monica Bay. The Pier Drain connects to the Clean Beaches Incentive (CBI) Project, a 1.6 million-gallon cistern located just north of the Pier Bridge. Flows in the Pier Drain are diverted to an HSU and then to the cistern. The runoff captured by CBI is pumped to the Santa Monica Urban Runoff Recycling Facility, otherwise known as "SMURRF." The SMURRF also treats dry-weather runoff (e.g., from excessive irrigation, spills, construction sites, pool draining, car washing, washing down paved areas, initial wet-weather runoff) that used to go directly to Santa Monica Bay through storm drains (City of Santa Monica 2016a). Approximately 80,000 to 120,000 gallons per day of urban runoff from parts of Santa Monica and Los Angeles are currently treated by the conventional and advanced treatment systems at the SMURRF (City of Santa Monica 2016a).

### 2.9.2.3 Drainage Pattern

Dry-weather flows collected from the parking lot north of the pier as well as underground drains beneath the pier are diverted to the City's storm drain system (City of Santa Monica 2016a). A pumping station on the project site (on Marvin Braude Bike Trail on the south side of the pier) pumps a portion of the dry-weather flows from the City's pier drainage basin to the City's sanitary sewer system for treatment prior to discharge to Santa Monica Bay (City of Santa Monica 2016a) (refer to Figure 2.9-2, which shows the storm drain network in the project area). Dry-weather flows are also captured, flow to the CBI, and then are pumped to the SMURRF as described above.

### 2.9.2.4 Water Quality

Under CWA Section 303(d), states are required to submit a list to EPA that identifies waters within their boundaries that fail to meet water quality standards (impaired waters) and water quality parameters (i.e., pollutants) (referred to as the "303(d) List"). The project site discharges to offshore and nearshore Santa Monica Bay, which is included on the SWRCB 303(d) List of impaired water bodies. Santa Monica Bay's offshore and nearshore listed impairments are shown in Table 2.9-1.

**Table 2.9-1. Overview of Water Quality Impairments in the Santa Monica Bay Study Area**

Water Body	Listed Impairments	Potential Sources	Estimated EPA TMDL Completion
	DDT (tissue and sediment)	Source Unknown	Completed March 2012



Water Body	Listed Impairments	Potential Sources	Estimated EPA TMDL Completion
Santa Monica Bay Offshore/ Nearshore	Debris	Source Unknown	Completed November 2010
	Fish consumption advisory	Source Unknown	Addressed by PCB/DDT TMDL
	PCBs (tissue and sediment)	Source Unknown	Completed March 2012
	Sediment toxicity	Source Unknown	Addressed by PCB/DDT TMDL

Source: SWRCB 2020.

PCBs = polychlorinated biphenyls; DDT = dichloro-diphenyl-trichloroethane

### 2.9.3 Environmental Consequences

This section describes potential impacts on water quality and stormwater runoff that could result from the proposed project. Construction activities may result in short-term impacts, such as the input of sediment loads and spills into water bodies. Long-term impacts include the increased potential for polluted runoff into water bodies.

#### 2.9.3.1 No-Build Alternative

If the proposed project were not built, there would be no alterations or improvements to the existing Pier Bridge and, therefore, no changes to the existing environment, no disturbance of soils, and no increase in the amount of impervious areas. It would present no potential impacts in terms of water quality or stormwater runoff. The No-Build Alternative would not result in new or additional impacts on hydrology, water quality, or stormwater runoff relative to existing conditions.

#### 2.9.3.2 Build Alternatives

##### Construction

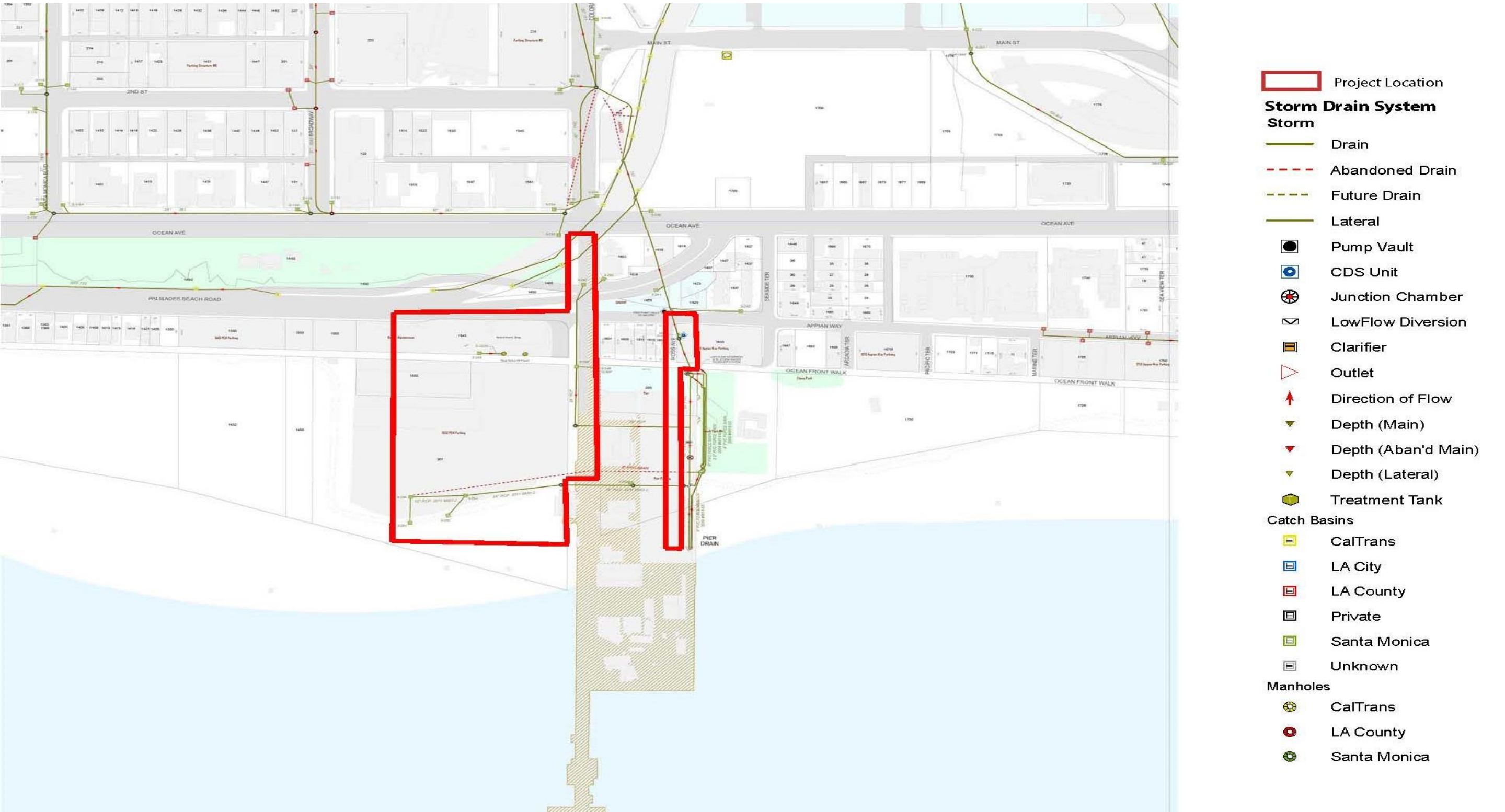
During construction, stormwater discharges can, if not properly managed, negatively affect the chemical, biological, and physical properties of downstream receiving waters. Because of disturbances in landscaped areas, sediment is the most likely pollutant; however, pH and non-visible pollutants are also concerns. *Soil erosion* is the process by which soil particles are removed from the land surface by wind, water, or gravity. The rate of erosion increases when land is cleared or altered and left unprotected. Construction sites, if unprotected, can erode at rates in excess of 100 times the natural background rate of erosion. Sediment resulting from excessive erosion is a pollutant.



Figure 2.9-1. Watersheds

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Source: City of Santa Monica

Figure 2.9-2. Storm Drain Map

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*Sedimentation* is the settling out of particles that are transported by water. Erosion and sedimentation affect water quality through interference with photosynthesis, oxygen exchange, and the respiration, growth, and reproduction of aquatic species. In addition, other pollutants, such as nutrients, trace metals, and hydrocarbons, can attach to sediment and travel downstream, which could contribute to degradation with respect to water quality. Effective sediment control begins with proper erosion control, which minimizes the availability of particles that settle downstream. Short-term or temporary construction impacts on water quality, including biological, physical/chemical, and human-use impacts, would have the potential to occur during demolition of the existing bridge and construction of the new bridge. The proposed project would disturb approximately 3.5 acres of land during construction activities, which would include the establishment and use of the construction staging area(s), stockpiling, operating heavy construction equipment (e.g., graders, excavators), widening roads, or providing new drainage facilities. Water quality impacts would be associated with these land-disturbing activities.

Because no work would occur within any waters of the U.S., the proposed project would not require Section 401 water quality certification. The proposed project would comply with the Construction General Permit, which would require implementation of a SWPPP to address erosion and sedimentation issues at the project site during construction. Compliance with the Construction General Permit (measure **WQ-1**) and implementation of temporary BMPs, consistent with the SWPPP (measure **WQ-2**), would reduce the potential for such impacts. BMPs are designed to maintain construction areas so that pollutants in stormflows are not carried offsite and into the drainage system. Temporary BMPs, such as silt fences, straw wattles, sediment traps, gravel sandbag barriers, or other effective sediment and erosion control BMPs, would be implemented to control runoff and erosion during construction. Implementation of erosion and sediment control BMPs would prevent substantial levels of soil erosion and sedimentation from occurring, thereby protecting water quality. With implementation of measures **WQ-1** and **WQ-2**, the proposed project would not violate state water quality standards or otherwise substantially degrade water quality. Impacts would be less than significant during construction. The minimization measures are provided in Section 2.9.4, *Avoidance, Minimization, and/or Mitigation Measures*.

## Operation

Build Alternatives 1 and 2 (LPA) would replace the existing Pier Bridge with a new bridge of approximately the same width. The replacement Pier Bridge would not result in a substantive change in new impervious surfaces compared with the existing condition. As a result, stormwater drainage patterns under these alternatives would remain similar to existing conditions.

Under Build Alternatives 1 and 2 (LPA), during operation the existing conditions would not substantively change due to the bridge being replaced in-kind, with no additional impervious surfaces.

The existing drainage facilities would be modified, as necessary, to accommodate both proposed build alternatives. For example, there is a 24" storm drain that runs underneath and adjacent to the pier bridge that may require removal and reconstruction to accommodate replacement of the bridge. This pipe would be reconstructed in approximately the same location after bridge construction. However, overall storm drain patterns would remain unchanged. Stormwater would

continue to be collected and routed to the sanitary sewer system for treatment prior to discharge into Santa Monica Bay. As a result, the proposed project would not discharge additional pollutants, and impacts would be less than significant.

With implementation of measure **WQ-1**, the proposed project would not violate state water quality standards or otherwise substantially degrade water quality. Impacts would be less than significant during operation.

## **2.9.4 Avoidance, Minimization, and/or Mitigation Measures**

Measures **WQ-1** and **WQ-2** would be implemented to avoid or minimize the potential hydrology and water quality impacts of the proposed project.

**WQ-1.** The proposed project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (Order No. R4-2012-0175, NPDES No. CAS004001) and the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent permits in effect at the time of construction.

**WQ-2.** The proposed project will comply with the Construction General Permit by preparing and implementing a Stormwater Pollution Prevention Plan (SWPPP) to address issues related to construction activities, pieces of equipment, and materials that have the potential to affect water quality and risk levels. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include Best Management Practices (BMPs), such as sediment controls, catch basin inlet protection, construction materials management, and non-stormwater BMPs, to control pollutants. All work must conform to the construction site BMP requirements specified in the latest edition of the California Department of Transportation *Construction Site Best Management Practices Manual* to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, waste management, materials handling, and other non-stormwater BMPs.

## **2.9.5 Cumulative Impacts**

### **2.9.5.1 Affected Environment**

**Resource Study Area (RSA):** The project site lies in the west area of the Santa Monica Groundwater Basin, which sits in the western section of the coastal plain of Los Angeles County. An appropriate RSA for hydrology and floodplains has been identified as the portion of the Santa Monica Coastal Basin that encompasses the project limits, from the intersection of Colorado Avenue and Ocean Avenue to the farthest extent of any downstream flows. This study area is appropriate because it contains the project site and likely downstream water flow that would lead into the Pacific Ocean.



**Existing Conditions within the RSA:** The majority of the city of Santa Monica, including the project location, falls within Flood Insurance Rate Map 06037C1590F. Both build alternatives require construction that falls under Zone A, Zone X (Other Flood Areas), and Zone X (Other Areas). Zone A is a designated 100-year flood hazard area and exists within the project site because of project site's proximity to the ocean, which makes it susceptible to flooding during storms or tsunamis. In addition, both build alternatives are located within a tsunami inundation area because of their proximity to the ocean.

### 2.9.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within the RSA:** The proposed project would not substantially increase the total area of impervious surface at the Pier Bridge or alter existing drainage patterns. Therefore, the proposed project would not contribute runoff that would exceed existing drainage system capacity.

During construction, stormwater discharges could negatively affect the chemical, biological, or physical properties of downstream receiving water. Construction sites, if unprotected, can erode at rates in excess of one hundred times the natural background rate of erosion. However, implementation of measures **WQ-1** and **WQ-2** would minimize soil erosion and sedimentation from exposed soils, thereby protecting water quality.

**Current and Reasonably Foreseeable Projects within the RSA:** Related projects could result in additional stormwater discharges that would negatively affect the chemical, biological, and physical properties as well in the project vicinity. Erosion could occur at other project sites as well.

**Cumulative Impact Potential:** The proposed project would not substantially alter existing drainage patterns or create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. Construction and operation of the proposed project and the related projects could contribute pollutants to surface waters within the watershed. The Los Angeles Regional Water Quality Control Board (RWQCB) has adopted a water quality control plan, or Basin Plan. All construction projects within the basin must comply with necessary permits and appropriate measures in accordance with the Basin Plan. Therefore, by complying with the required permits and appropriate measures of the Basin Plan, the project and related projects would not contribute to a cumulatively considerable impact.

### 2.9.5.3 Avoidance, Minimization, and/or Mitigation Measures

Measures **WQ-1** and **WQ-2**, as detailed in Section 2.9.4, would be implemented in order to minimize impacts.

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## **2.10 Geology, Soils, Seismicity, and Topography**

This section describes existing conditions and applicable regulatory requirements related to geology, soils, seismicity, and topography. It also describes the proposed project's potential for causing or exacerbating geologic impacts on people and the surrounding environment. Desktop research was conducted in August 2020 to confirm that the information presented below has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

### **2.10.1 Regulatory Setting**

The key federal law related to geologic and topographic features is the Historic Sites Act of 1935, which establishes a national registry of natural landmarks and protects “outstanding examples of major geological features.” Topographic and geologic features are also protected under the California Environmental Quality Act (CEQA).

This section discusses geologic, soil, and seismic concerns as they relate to public safety and the project design. Earthquakes are prime considerations in the design and retrofit of structures. Therefore, the California Department of Transportation (Caltrans) Seismic Design Criteria (SDC) are used in the design of structures. The SDC provide the minimum seismic requirements for highway bridges in California. A bridge's category and classification determine its seismic performance level and the methods used for estimating seismic demands and structural capabilities. For more information, please see Caltrans Division of Engineering Services, Office of Earthquake Engineering, SDC.

### **2.10.2 Affected Environment**

The project site is in Los Angeles County, California, in the city of Santa Monica. In the project area, Colorado Avenue runs in a northeast–southwest direction as it crosses western Santa Monica, leading to Santa Monica Pier. In the immediate project area, Ocean Avenue runs in a northwest–southeast direction parallel to the Santa Monica shoreline. Pacific Coast Highway crosses under the intersection of Colorado Avenue and Ocean Avenue within the McClure Tunnel. Moomat Ahiko Way is a divided road that provides a connector from Ocean Avenue to Pacific Coast Highway. Appian Way, a surface street, provides access to the beach and beachside businesses on the south side of Santa Monica Pier. The Colorado Avenue Viaduct is a 16-span bridge that crosses over the top of Moomat Ahiko Way and Appian Way, then terminates Colorado Avenue at the Santa Monica Pier.

According to the California Geological Survey's Earthquake Zones of Required Investigations, the Santa Monica Fault (within the Beverley Hills Fault Zone) traverses portions of the city and is located approximately 1.42 miles to the northeast (at its closest point) of the Santa Monica Pier. The Santa Monica fault is believed to be an active fault and, therefore, has also been designated as a Fault Hazard Management Zone in the Seismic Safety Element of the City of Santa Monica (City) General Plan (1995).

The Santa Monica fault is part of a system of faults along the southern boundary of the Transverse Ranges. Historical seismicity patterns indicate that the southern elements of the fault system have been the most active (Earth Mechanics 2008). Several local earthquakes have generated shaking in the vicinity of the Santa Monica Pier Bridge (Pier Bridge).

The Seismic Hazard Zone map for the Beverly Hills quadrangle indicates that sands along the beach and in the canyons are susceptible to liquefaction (California Department of Conservation 1998). The alluvial material in the bluffs is generally dense and not anticipated to experience significant settlement during service (static) conditions; however, isolated thin layers below the water table are likely to be susceptible to mild to moderate liquefaction. According to the soil information obtained during the 2008 field investigation by Earth Mechanics, the project site is underlain by alluvial deposits that consist of sand, sand with silt, silty sand, sandy silt, silty clay, and gravel. Between the road grade at Abutment 1 (approximately elevation +60 feet) and approximately elevation +15 feet, foundation soils are predominately moist loose to medium-dense silty sand and sandy silt, with occasional clay and gravel lenses. This material was underlain by predominately medium-dense to dense silty sand, sandy silt, and occasional sandy gravel layers to the deepest elevations penetrated. Groundwater was encountered in all five boring locations, between approximately elevation +1.5 and +6 feet. The liquefaction potential of the foundation materials throughout the project site ranges from low to high. Higher risk areas are found beneath the western portion of the pier structure.

The site does not have significant expansive surficial materials, but site soils may be corrosive to metals. Representative samples of soils from throughout the project area were tested to determine corrosivity, including minimum resistivity, pH, soluble sulfate content, and soluble chloride content. According to Caltrans criteria, soils are corrosive if the pH is 5.5 or less, the chloride concentration is 500 parts per million (ppm) or greater, or the sulfate concentration is 2,000 ppm or greater (Caltrans 2003). Based on the test results, the on-site soils are considered to be corrosive to bare metals and concrete.

### **2.10.3 Environmental Consequences**

#### **2.10.3.1 No-Build Alternative**

The No-Build Alternative would not result in replacement of the Pier Bridge. Therefore, there would be no impacts on existing geologic, soil, topographic, or seismic conditions in the vicinity of the project site. Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not provide enhanced ADA access. As time goes on, these compromising conditions would worsen, and replacement of the Pier Bridge would eventually become imperative. The No-Build Alternative serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

### 2.10.3.2 Build Alternatives 1 and 2 (LPA) Construction and Operational Impacts

Build Alternatives 1 and 2 (LPA) would construct a replacement bridge within the alignment of the existing Pier Bridge. Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier, namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) for a pedestrian access route (15 feet, 0 inches wide). Build Alternatives 1 and 2 (LPA) would locate the pedestrian path on opposite sides of the bridge.

The proposed project would have a beneficial effect because the seismically deficient bridge would be replaced with one that would comply with the latest Caltrans Seismic Design Criteria (SDC). Therefore, it is not expected that construction or operation of either build alternative would expose people or structures to a substantial increased risk of loss, injury, or death.

### 2.10.4 Avoidance, Minimization, and/or Mitigation Measures

In general, with respect to construction of either build alternative, geologic and seismic hazards can be effectively mitigated by employing sound engineering practices in the design and construction of the replacement bridge as well as associated structures. However, because of the potential for strong seismic ground shaking, soil liquefaction, and unsuitable soil conditions such as expansive soils, which would be applicable to both build alternatives, the measure below would be implemented.

**GEO-1.** The following actions shall be incorporated into the project:

- Removal of unsuitable subgrade soils and replacement with engineered fill,
- Use of coated or non-metallic (i.e., concrete or polyvinyl chloride [PVC]) pipes that are not susceptible to corrosion,
- Construction of foundations using sulfate-resistant concrete,
- Support of structures on deep-pile foundation systems,
- Densification of compactable subgrade soils with in-situ techniques, and
- Placement of moisture barriers above and around expansive subgrade soils to help prevent variations in soil moisture content, where applicable.

### 2.10.5 Cumulative Impacts

#### 2.10.5.1 Affected Environment

**Resource Study Area:** The resource study area (RSA) for geology and soils includes the greater Los Angeles area. For seismicity, the RSA is the entire Santa Monica fault zone.

**Existing Conditions within RSA:** The Santa Monica fault extends through portions of the city and is believed to be potentially active. Therefore, it was designated as a Fault Hazard Management Zone in the Seismic Safety Element of the City's General Plan (1995). In addition, it has been identified by the California Geological Survey as being within the Beverley Hills Fault Zone (California Geological Survey 2021). The project site is underlain by alluvial deposits, consisting of sand, sand with silt, silty sand, sandy silt, silty clay, and gravel. This material was underlain by

predominately medium-dense to dense silty sand, sandy silt, and occasional sandy gravel layers to the deepest elevations penetrated. Groundwater was encountered in all five boring locations between about elevation +1.5 and +6 feet. The liquefaction potential of the foundation materials throughout the project site ranges from low to high. Higher risk areas are found beneath the western portion of the pier structure.

The bluffs are susceptible to earthquake-induced landslides. Because the liquefiable layers on the bluff occur in isolated locations, the potential for lateral spreading is expected to be low. The Seismic Safety Element of the City's General Plan (1995) describes the history of slope failures along the coastal bluffs in the area. This history shows that there is significant potential for landslides, toppling blocks of soil, and slumps. A total of 16 slides were reported between 1930 and 1958.

### **2.10.5.2 Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** Potential cumulative geologic impacts would be limited to the disturbance of unique geological features and exposure of people to seismic hazards. The proposed project would have a beneficial effect because the structurally deficient bridge would be replaced with one that would comply with the current, more stringent code requirements for seismic safety.

**Current and Reasonably Foreseeable Projects within RSA:** All related projects would be required by law to comply with the applicable building codes and local regulations. Therefore, it is expected that related projects would not expose people or structures to a substantial increased risk of harm to the extent that they would contribute to a cumulative impact related to geology or soils. Therefore, changes in geologic conditions would not be expected.

**Cumulative Impact Potential:** Seismic hazards are mitigated on an individual project basis through sound engineering and adherence to geotechnical construction and operational standards. The proposed project would improve the structural integrity and resilience of the Pier Bridge in the event of seismic activity; however, the proposed project would not change existing geologic conditions. Consequently, the proposed project would not contribute to adverse cumulative impacts on unique geologic features and would not contribute to a cumulative increase in the risks posed by seismic hazards.

Part of the project's objective is to replace the structurally deficient Pier Bridge. Because on-site structures would be built to comply with applicable provisions of the latest Caltrans seismic and bridge-design codes, impacts related to geology and soils would not be adverse.

### **2.10.5.3 Avoidance, Minimization, and/or Mitigation Measures**

No adverse cumulative impacts related to geology, soils, seismicity, and/or topography are anticipated as a result of the proposed project, and no avoidance, minimization, and/or mitigation measures are proposed.

## 2.11 Paleontology

This section describes existing conditions and the applicable regulatory requirements related to paleontology as well as the proposed project's potential for impacts on paleontological resources.

Desktop research was conducted in August 2020 to confirm that the information presented below has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

### 2.11.1 Regulatory Setting

Paleontology is a natural science. It focuses on the ancient animal and plant life preserved in the geologic record as fossils. A number of federal statutes specifically address paleontological resources, their treatment, and funding for mitigation as a part of federally authorized projects. One statute, 16 United States Code (USC) 431–433 (the “Antiquities Act”), prohibits appropriating, excavating, injuring, or destroying any object of antiquity situated on federal land without the permission of the secretary of the department of government having jurisdiction over the land. Fossils are considered “objects of antiquity” by the Bureau of Land Management, the National Park Service, the U.S. Forest Service, and other federal agencies. In addition, 16 USC 461–467 (the National Registry of Natural Landmarks) establishes the National Natural Landmarks program. Under this program, property owners agree to protect biological and geological resources such as paleontological features. Federal agencies and their agents must consider the existence and location of designated National Natural Landmarks, as well as areas that meet the criteria for national significance, in assessing the effects of their activities on the environment under the National Environmental Policy Act (NEPA). Furthermore, 16 USC 470aaa (the Paleontological Resources Preservation Act) prohibits excavating, removing, or damaging paleontological resources located on federal land that are under the jurisdiction of the Secretaries of the Interior or Agriculture without first obtaining an appropriate permit. The statute establishes criminal and civil penalties for fossil theft and vandalism on federal lands. Also, 23 USC 1.9(a) requires the use of federal-aid funds to be in conformity with federal and state law, and 23 USC 305 authorizes the appropriation and use of federal highway funds for paleontological salvage, as necessary, by the highway department of any state, in compliance with 16 USC 431–433, above, and state law.

Under California law, paleontological resources are protected under the California Environmental Quality Act (CEQA).

### 2.11.2 Affected Environment

The Santa Monica Pier Bridge (Pier Bridge) is situated on the western edge of the Los Angeles Basin in the city of Santa Monica, at approximately 20 to 105 feet above mean sea level. The project area is developed with Santa Monica Pier, Santa Monica State Beach, a parking lot, lifeguard station, and Pacific Coast Highway (State Route 1). On top of the Palisades Bluff above the pier are Ocean Avenue, Colorado Avenue, and Palisades Park.



Regionally, the project area lies within the northern portion of the Peninsular Ranges geomorphic province. This province consists of a series of generally northwest-trending mountain ranges, such as the Puente Hills and Santa Ana Mountains, with broad valleys between. The northern edge of the Peninsular Ranges is marked by a broad sediment-filled trough known as the Los Angeles Basin. At the northern edge of the Los Angeles Basin, complex tectonic interactions have uplifted a series of east-/west-trending mountain ranges, including the Santa Monica Mountains and the San Gabriel Mountains, to form the adjacent Transverse Ranges geomorphic province.

Surface geology in the project area consists of active beach sands and fill under the pier and beach, with Quaternary alluvium inland of Appian Way. Older alluvium in the project area is Pleistocene in age (10,000 to 1.2 million years old), primarily the fan deposits derived from the Santa Monica Mountains to the north. These older Quaternary sediments are known to contain fossils. The deposits are a mixture of bedded sands, gravels, and clays and occur at an unknown depth in the project area under a thin veneer of younger Holocene (less than 10,000 years old) sediments. However, in the Los Angeles Basin, these older Quaternary sediments typically occur at depths of 5 to 10 feet below the ground surface (bgs).

The Natural History Museum of Los Angeles County (LACM) completed a search of its vertebrate paleontology records for recorded fossil resources in the vicinity of the project site. This review found two known fossil localities in nearby sediments, similar to those in the project area (McLeod 2016), as indicated in Table 2.11-1.

**Table 2.11-1. Fossil Localities in the Vicinity of the Project Area**

<b>Locality Number</b>	<b>Approximate Location<sup>a</sup></b>	<b>Fossils Found</b>	<b>Depth of Fossil</b>
LACM 5462	1.8 miles northeast of Santa Monica Pier	Extinct lion, <i>Felis atrox</i>	6 feet bgs
LACM 7879	2.0 miles east of Santa Monica Pier	Fossil horse, <i>Equus</i> ; ground sloth, <i>Paramylodon</i>	More than 11 feet bgs

Source: Natural History Museum of Los Angeles County 2016.

Notes:

<sup>a</sup>. The exact location of fossil localities is not provided to the public to avoid any loss of paleontological resources.

Because of the built-up nature of the project study area, a paleontological field survey was not conducted.

### **2.11.2.1 Environmental Consequences**

#### **No-Build Alternative**

The No-Build Alternative would not result in replacement of the Santa Monica Pier Bridge (Pier Bridge). Therefore, construction activities are not expected to take place; the Pier Bridge would remain open to pedestrian and vehicular traffic. No impacts on paleontological resources would be expected.

## Build Alternatives 1 and 2 (LPA)

For the purposes of this EIR, in accordance with Section 21084.1 of CEQA and Appendix G of the CEQA Guidelines, the proposed project would have a significant adverse environmental impact on paleontological resources if it would:

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

The alternatives under consideration include:

Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier, namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) that would be used as an Americans with Disability Act– (ADA-) compliant access route (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent. Existing routes would remain available for ADA-compliant access. The replacement bridge would be approximately 448 feet long and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing bridge. Two variations for the bridge configuration are being considered, with the pedestrian path on opposite sides of the bridge.

Under the No-Build Alternative, replacement of the Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The existing bridge would continue to fail to meet current seismic standards, would not adequately and safely accommodate users during periods of peak demand, and would not meet ADA standards. As time goes on, compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

Construction and operational impacts would be similar under all build alternatives. Therefore, the impacts are analyzed conjointly throughout the analysis. Project elements and potential impacts that are unique to a particular build alternative or design option are called out as necessary.

## Build Alternatives

### Construction

Construction associated with the build alternatives would involve demolition, grading, excavation, utility relocation, and other earthmoving activity. Depending on the previous level of disturbance, this has the potential to affect sensitive geologic units and, therefore, has the potential to disturb, damage, or destroy significant, scientifically important fossil resources.

Within the boundaries of the project footprint, the active beach sands are unlikely to encompass fossil materials. These areas are not considered sensitive for paleontological resources. The uppermost Holocene alluvium has been disturbed by previous grading and is not of an age that would encompass fossil resources. It is unlikely that fossil remains in the Holocene alluvium would be intact. However, at depth, the alluvial sediments transition gradually to older

Quaternary sediments. These older Quaternary alluvium sediments are considered sensitive for paleontological resources, and the potential exists to encounter significant vertebrate fossils. Surface grading or very shallow excavations into the alluvial deposits are unlikely to expose significant fossilized remains. However, excavations to depths of 5 feet or more, extending into the older Quaternary deposits, may expose significant fossilized vertebrate remains.

Ground disturbance in geologic units known to contain scientifically significant fossils may have significant impacts on nonrenewable paleontological resources (CEQA Guidelines, 14 California Code of Regulations, Sections 15064.5[3] and 15023; CEQA Guidelines Appendix G, Section V, Part C). Grading and other earthmoving activities may result in significant direct impacts on paleontological resources. Implementation of Mitigation Measure PAL-1, below, would reduce these project impacts to a less-than-significant level.

### Operation

Operation of the proposed project would not result in adverse effects on paleontological resources. No elements of the bridge's operation would result in further excavations or other disturbances of paleontological resources.

### 2.11.3 Avoidance, Minimization, and/or Mitigation Measures

**PAL-1.** Because of the paleontological potential of the older Quaternary alluvium, a qualified vertebrate paleontologist shall be retained by the City or construction contractor to oversee monitoring during earthmoving activities with the potential to affect this formation. Excavations can be monitored by a qualified paleontological monitor under the supervision of the qualified paleontologist. Deep-drilled, poured-in-place concrete shafts will be monitored only if possible (e.g., during initial clearing and grading of the shaft sites). Monitoring of earthwork in the older Quaternary alluvium will reduce potential impacts to a less-than-significant level.

Monitoring may be reduced if the potentially fossiliferous unit described herein is, upon exposure and examination by qualified paleontological personnel, determined to have low potential for containing fossil resources.

The paleontological monitor shall be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis.

Fossils collected, if any, shall be transported to a paleontological laboratory for processing where they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and then deposited in a designated paleontological curation facility such as the LACM.

Following analysis, a report of findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts on paleontological resources.

### **2.11.3.1 Level of Significance after Mitigation**

Impacts on paleontological resources, if any are found, are expected to be reduced to a less-than-significant level with implementation of Mitigation Measure PAL-1, as identified above.

### **2.11.4 Cumulative Impacts**

#### **2.11.4.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for paleontology includes the greater Los Angeles area.

**Existing Conditions within RSA:** The project site is situated on the western edge of the Los Angeles Basin in the city of Santa Monica, at approximately 20 to 105 feet above mean sea level. The project area is currently developed with the existing Santa Monica Pier and State Beach, a parking lot and lifeguard station, and Pacific Coast Highway (State Route 1). On top of the cliff above the pier are Ocean Avenue, and Colorado Avenue, and Santa Monica Palisades Park.

Regionally, the project area lies within the northern portion of the Peninsular Ranges geomorphic province, which consists of a series of generally northwest-trending mountain ranges, such as the Puente Hills and Santa Ana Mountains, with broad valleys between. The northern edge of the Peninsular Ranges is marked by a broad sediment-filled trough known as the Los Angeles Basin. At the northern edge of the Los Angeles Basin, complex tectonic interactions have uplifted a series of east-/west-trending mountain ranges, including the Santa Monica Mountains and the San Gabriel Mountains, to form the adjacent Transverse Ranges geomorphic province.

Surface geology in the project area consists of active beach sands and fill under the pier and beach, with Quaternary alluvium inland of Appian Way. Older alluvium in the project area is Pleistocene in age (10,000 to 1.2 million years old), primarily fan deposits derived from the Santa Monica Mountains to the north. These older Quaternary sediments are known to contain fossils. These deposits are a mixture of bedded sands, gravels, and clays and occur at an unknown depth in the project area under a thin veneer of younger Holocene age (less than 10,000 years old) sediments. However, in the Los Angeles Basin, these older Quaternary sediments typically occur at depths of 5 to 10 feet bgs.

The LACM completed a search of its vertebrate paleontology records for recorded fossil resources in the vicinity of the project site. This record review found that two known fossil localities are nearby, in sediments similar to those in the project area (McLeod 2016), as indicated in Table 2.11-1.

#### **2.11.4.2 Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** Construction of the build alternatives would involve demolition, grading, excavation, utility relocation, and other earthmoving activity. Depending on the previous level of disturbance, this has the potential to affect sensitive geologic units and, therefore, has the potential to disturb, damage, or destroy significant, scientifically important fossil resources.

Within the boundaries of the project footprint, the active beach sands are unlikely to contain fossil materials and are not considered sensitive for paleontological resources. The uppermost Holocene alluvium has been disturbed by previous grading and is not old enough to encompass fossil resources. It is unlikely that fossil remains in the Holocene alluvium would be intact. However, at depth, the alluvial sediments transition gradually to older Quaternary sediments. These older Quaternary alluvium sediments are considered sensitive for paleontological resources; therefore, the potential exists to encounter significant vertebrate fossils. Surface grading or very shallow excavations into the alluvial deposits are unlikely to expose significant fossilized remains. However, excavations of 5 feet or more, extending into the older Quaternary deposits, may expose significant fossilized vertebrate remains.

Ground disturbance in geologic units known to contain scientifically significant fossils may result in significant impacts on nonrenewable paleontological resources (CEQA Guidelines, 14 California Code of Regulations, Sections 15064.5[3] and 15023; CEQA Guidelines Appendix G, Section V, Part C). Grading and other earthmoving activities may result in significant direct impacts on paleontological resources. Implementation of Mitigation Measure PAL-1 would reduce these project impacts to a less-than-significant level.

**Current and Reasonably Foreseeable Projects within RSA:** The potential for current and reasonably foreseeable projects to contribute toward a cumulative impact would be low because all of the projects would be infill development projects and would occur in already-disturbed soil. However, several of the projects would include deep excavations (e.g., to construct underground parking garages). This could affect undiscovered fossil materials during construction.

**Cumulative Impact Potential:** The potential exists for cumulative impacts on paleontological resources in the event that the proposed project and one or more current and reasonably foreseeable projects unearth and affect buried fossil materials during construction.

#### **2.11.4.3 Avoidance, Minimization, and/or Mitigation Measures**

Mitigation Measure PAL-1 would be implemented during construction of the proposed project to minimize the potential impacts on buried paleontological resources, to the extent feasible, and therefore limit the proposed project's contribution toward a cumulative impact.

## 2.12 Hazardous Waste/Materials

This section describes existing conditions and the applicable regulatory requirements related to hazards and hazardous materials as well as the potential for impacts from hazardous materials on people or the surrounding environment as a result of the build alternatives to the proposed project.

### 2.12.1 Regulatory Setting

A hazardous material is any substance that—because of its quantity, concentration, or physical or chemical properties—may pose a hazard to human health or the environment. Hazardous materials in various forms can cause death, serious injury, or long-lasting health effects. Some may damage buildings, homes, or other property. Hazards to human health and the environment can occur during the production, storage, transportation, use, or disposal of hazardous materials.

Hazardous materials, including hazardous substances and wastes, are regulated by many state and federal laws. Statutes govern the generation, treatment, storage, and disposal of hazardous materials, substances, and waste as well as the investigation and mitigation of waste releases, with consideration given to air and water quality, human health, and land use.

The primary federal laws for regulating hazardous wastes/materials are the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Resource Conservation and Recovery Act of 1976 (RCRA). The purpose of CERCLA, often referred to as “Superfund,” is to identify and clean up abandoned contaminated sites so that public health and welfare are not compromised. The RCRA provides for “cradle to grave” regulation of hazardous waste generated by operating entities. Other federal laws include:

- Community Environmental Response Facilitation Act of 1992,
- Clean Water Act,
- Clean Air Act,
- Safe Drinking Water Act,
- Occupational Safety and Health Act,
- Atomic Energy Act,
- Toxic Substances Control Act, and
- Federal Insecticide, Fungicide, and Rodenticide Act.

In addition to the acts listed above, Executive Order 12088, Federal Compliance with Pollution Control Standards, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

California regulates hazardous materials, waste, and substances under the authority of the California Health and Safety Code and is authorized by the federal government to implement RCRA in the state. California law addresses specific hazardous waste issues related to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. The

Porter-Cologne Water Quality Control Act restricts the disposal of waste and requires cleanup when such waste could affect the quality of groundwater or surface water, even when the waste is below hazardous concentrations. California regulations that pertain to waste management and prevention as well as contamination cleanup include Title 22, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste; Title 23, Waters; and Title 27, Environmental Protection. In addition, the City of Santa Monica (City) identifies the following materials as hazardous (City of Santa Monica 1995):

- Substances on the list prepared by the Director of Industrial Relations pursuant of Labor Code Section 6382;
- Hazardous substances defined in the California Health and Safety Code, Sections 25316 and 25532;
- Any substance that is classified by the National Fire Protection Association as a flammable liquid, a Class II combustible liquid, or a Class III-A combustible liquid;
- Any substance on the master list of hazardous substances prepared in accordance with California Health and Safety Code Section 25281; and
- Any substance required to be disclosed under Chapter 3, Article V, of the Municipal Code, as related to toxic chemical disclosure.

Santa Monica Municipal Code Section 5.24.010 requires all businesses to notify the City if they use, store, or manufacture any quantity of a hazardous or extremely hazardous material. With respect to hazardous materials, an annual business plan must be submitted if a business uses, stores, or manufactures 55 gallons (208 liters) or more of a liquid, 500 pounds (227 kilograms) or more of a solid, or 200 cubic feet (5.7 cubic meters) or more of a gas at stand temperature and pressure. In addition to inventorying the materials in question, the business plan must describe emergency response plans and procedures to be used in the event of an accident. In addition, Santa Monica Municipal Code Section 8.104 requires the installation, operation, and removal of underground storage tanks to be performed under the authority of City-issued permits. In addition, the investigation, assessment, and cleanup of a release from an underground storage tank are to be overseen by the City, pursuant to Municipal Code Section 8.104.

## **2.12.2 Affected Environment**

### **2.12.2.1 Review of Environmental Hazardous Materials Databases**

An Initial Site Assessment (ISA) was performed by ICF for the Santa Monica Pier Bridge Replacement Project in May 2016. The 2016 ISA was completed as part of a National Environmental Policy Act (NEPA) environmental assessment (EA) and California Environmental Quality Act (CEQA) draft environmental impact report (EIR) prepared in support of a prior iteration of the Santa Monica Pier Bridge Replacement Project. The purpose of the ISA was to review past and present land use practices, current site conditions, and adjacent land uses to evaluate any environmental impairment, or recognized environmental condition (REC),<sup>1</sup>

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<sup>1</sup> Per American Society for Testing and Materials Standard E 1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, the term *REC* refers to the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property involving (1) a release to the environment, (2) conditions indicative of a release to the environment, or (3) conditions that pose a material threat of a future release to the environment.



within the project footprint. No concerns related to hazardous materials were identified at the time. Although there were several hazardous materials sites in the vicinity of the proposed project, based on information obtained during preparation of the 2016 ISA, the project area and nearby areas were not considered RECs for the proposed project. Furthermore, none of the other environmental data reviewed identified any RECs within the project footprint or in the vicinity of the project footprint.

Non-REC environmental considerations highlighted in the ISA included the following:

- The Santa Monica Pier Bridge (Pier Bridge) was constructed in 1939. Therefore, the ISA noted that the potential exists for asbestos-containing building material (ACBM) and lead-based paint (LBP) to be present in the structure.
- The potential exists for aerially deposited lead (ADL) to be present in unpaved areas within the project limits as well as hazards associated with the removal of yellow or white painted or thermoplastic traffic stripes on the pavement.
- The possibility exists that groundwater seepage could affect the bridge substructure and require dewatering. If the groundwater is contaminated (considered unlikely, based on the information reviewed), construction activities involving exposure to groundwater could result in potential impacts.

Mitigation measures HM-1 through HM-6 were recommended to ensure that ACBM, LBP, ADL, and other contaminants and hazards present within the project site would not pose a substantial hazard for workers or the public.

The ISA prepared for the initial project was conducted in 2016. Because environmental database information can change over time, a supplemental environmental database search was conducted in 2020. The database search was conducted for the maximum project footprint to encompass both build alternatives. The report was reviewed to determine if the project site or adjacent properties are listed in any environmental databases. The following tables summarize the *on-site* and *off-site* facilities identified with some potential to affect the project. Not all sites that were listed in the report on the database search pose a risk to implementation of the project; therefore, not all sites were included in the tables. The tables list facilities, along with their distance from the project site, the database they were identified in, and their regulatory status.

**Table 2.12-1. Project Site Listings Identified during Database Search**

Site	Address	Databases	Site Status Summary	Potential to Affect the Project
Beach Maintenance Facility/Santa Monica Beach Maintenance Yard/Beach Maintenance Yard	1540 Appian Way	CA HIST CORTESE, CA LUST, CA SWEEPS UST, CA ENF, CA FID UST, CA HAZNET, CA HWTS, CA CERS HAZ WASTE, CA CERS TANKS, CA CERS, CA AST	Leaking underground storage tank (UST) site. Diesel fuel contaminated the groundwater. Case opened in 1991 and granted closure in 1996. Two historical USTs identified. No other violations were recorded.	Low. Case granted closure in 1996 by oversight agency.

Site	Address	Databases	Site Status Summary	Potential to Affect the Project
City of Santa Monica	200 Santa Monica Pier	CA HWTS, FINDS, CA CHMIRS, RCRA NONGEN/NLR, ECHO, MN MANIFEST, CA HAZNET	A 50-gallon release of sewage occurred in February 2008 after a coupling slipped off a pipe. In addition, a 100- to 150-gallon sewage release occurred in 2004 after a sewer line was blocked. Both incidents were identified as “cleaned up” by the reporting party. A third incident involved the release of 80 pounds of chemicals (undisclosed) at a nearby intersection. The release was cleaned up by the Santa Monica Fire Department. No other violations recorded.	Low. All cases were cleaned up after occurrence.
City of Santa Monica/Beach Maintenance Facility	1540 Appian Way	CA LUST, CA ENF, CA HIST CORTESE, CA CERS, CA HAZNET, CA HWTS, CA CERS HAZ WASTE, CA CERS TANKS, CA RGA LUST, CA SWEEPS UST, CA FID UST, CA AST, CA HIST UST	Leaking UST site. Diesel fuel contaminated the groundwater. Case opened in 1991 and granted closure in 1996. No other violations were recorded.	Low. Case granted closure in 1996 by oversight agency.
N/A	330 Santa Monica Pier	CA CHMIRS	A 100-gallon release of sewage occurred in April 2008 after a coupling slipped off a pipe. The material landed on sand. No other violations recorded. Incident identified as “cleaned up” by the reporting party.	Low. All cases were cleaned up after occurrence.
N/A	1600 Appian Way	CA CHMIRS	An unknown quantity of liquid chlorine was released in January 2000. Release occurred during construction of sewer treatment plant. Incident handled by the Santa Monica Fire Department. No other violations recorded.	Low. Santa Monica Fire Department addressed the release.
N/A	1550 Ocean Front Walk	CA CHMIRS	An unknown quantity of an unknown material was released in August 2015. Release involved a substance that washed up on shore from an unknown source. The Santa Monica Fire Department’s Hazmat Unit	Low. Santa Monica Fire Department Hazmat Unit addressed the release.

Site	Address	Databases	Site Status Summary	Potential to Affect the Project
			responded and tested the substance, which was found to be acidic, leading to a temporary beach closure. No other violations recorded.	

The table below lists nearby facilities that were identified during the database search as having some potential to affect the proposed project. The list of facilities includes their distance to the project, the databases they were identified in, and their regulatory status.

**Table 2.12-2. Facilities near the Project Site Identified during Database Search**

Site	Address	Distance from the Project	Databases	Site Status Summary	Potential to Affect the Project
Kurumaya USA, Inc.	1535 Ocean Avenue	36 feet to the NNE	CA LUST, CA HIST CORTESE, CA CERS	Waste motor oil/hydraulic oil/lubricating oil release to soil. Case opened in April 1992 and closed in October of that same year. No other violations were recorded.	Low; soil-only site. Case has been granted closure by oversight agency.
Rand Corp.	1700 Main Street	0.135 mile to the E	RCRA-SQG, CA ENVIROSTOR, FINDS, ECHO, CA EMI, CA HAZNET, CA CIWQS, CA CERS, CA HWTS	Evaluation site under EnviroStor. Status listed as "Refer: 1248 Local Agency" as of 2005. These are sites that were referred to a local agency through the Senate Bill 1248 determination process in order for the agency to supervise cleanup of a simple waste release. No contaminants or affected media disclosed.	Low. No data available for identifying a release. No violations recorded.
Sears #1178	302 Colorado Avenue	0.140 mile to the NE	RCRA-LQG, FINDS, CA HIST CORTESE, CA LUST	Two separate releases recorded. Initial release involved solvent-contaminated soil. Case was opened in 1987 and granted closure in 2011. Second release involved diesel-/oil-contaminated media (media type not reported). The case was opened in 2008 and granted closure in 2013.	Low. Both cases have been granted closure by oversight agency.

Site	Address	Distance from the Project	Databases	Site Status Summary	Potential to Affect the Project
				No other violations recorded under this address.	
Santa Monica Police Department	1685 Main Street	0.145 mile to the E	CA HIST CORTESE, CA LUST, CA HIST UST, CA CERS, CA SWEEPS UST, CA FID UST, CA EMI, NY MANIFEST, RCRA NONGEN/ NLR	Leaking UST site. Diesel fuel contaminated the soil. Case opened in 1991 and granted closure in 1994. Non-generator under the RCRA. No other violations were recorded.	Low; soil-only site. Case has been granted closure by oversight agency.
Santa Monica Army Air Force Redistribution Station #3/ Santa Monica Army Air Force	No address. Latitude: 34.00833 Longitude: -118.4916	0.193 mile to the ESE	UXO, CA ENVIROSTOR	Site listed as a “formerly used defense site” and an “unexploded munitions and ordnance area.” As of 2005, the site was listed as an inactive site in need of evaluation under EnviroStor. No physical address listed; location coordinates are for the Seaview Hotel at 1760 Ocean Avenue. Area is fully developed.	Low. Site appears to have been remediated because area is fully developed.
Former Sears Auto Center #6081	402 Colorado Avenue	0.211 mile to the NE	CA ENVIROSTOR, CA VCP, CA AST	Site granted “no further action” status under the Voluntary Cleanup Program. Impacts involving soil and soil vapor related to benzene and total petroleum hydrocarbons (TPH) diesel and TPH gas.	Low. Case has been granted closure by oversight agency.
Santa Monica/ Malibu School District	1723 Fourth Street	0.25 mile to the ENE	CA HIST CORTESE, CA LUST, CA CERS	Leaking UST site. Aviation fuel contaminated the soil. Case opened in 1988 and granted closure in 2013. No other violations were recorded.	Low; soil-only site. Case has been granted closure by oversight agency.

Based on the information reviewed, the seven nearby sites identified in the table above are not considered likely to affect implementation of the proposed project, either because they are

separated by adequate distances or have been appropriately managed and/or closed in accordance with the requirements of the oversight agency.

### **2.12.2.2 Asbestos-Containing Building Materials, Lead-Based Paint, Aerially Deposited Lead, and Polychlorinated Biphenyls**

Asbestos is a mineral fiber that is carcinogenic and harmful to respiratory health. Because of its fiber strength and heat resistance, it was widely used in a variety of construction materials as insulation and as a fire retardant; it was also used in friction and heat-resistant products. Use of asbestos in the manufacturing of these products was common in the 1980s in California. Older buildings and structures constructed prior to the 1980s could contain ACBM. An asbestos release can occur after ACBMs are disturbed by cutting, sanding, or other remodeling activities. Improper attempts to remove these materials can release asbestos fibers into the air, thereby increasing asbestos levels and affecting indoor air quality.

Lead, a recognized harmful environmental pollutant, can be exposed through air, drinking water, food, contaminated soil, deteriorating paint, and dust. Before the dangers were documented, lead was widely used in paint, gasoline, water pipes, and many other products. In 1977, the U.S. Consumer Product Safety Commission banned the use of LBP. Therefore, older buildings constructed prior to 1977 could contain LBP. If LBP is improperly removed from surfaces by dry scraping or sanding, LBP could be absorbed into the body and pose a potential public health risk.

Until the mid-1980s, gasoline and other fuels contained lead as an additive. As each motor vehicle traveled the highways, tiny particles of lead were emitted in the exhaust, eventually settling on the soil next to the freeways and roads. Most of the time, lead tends not to move very far or very fast in the environment. Over the years, ADL built up along freeways and roads. The potential exists for highway projects that disturb the soil to encounter ADL.

The Pier Bridge was constructed in 1939; therefore, the potential exists for ACBMs and LBP to be present in the existing structure. In addition, the potential exists for shallow soil contamination on the north side of the pier, resulting from the aerial deposition of lead from past vehicular emissions (i.e., having occurred when leaded gasoline was widely used). Exposure to ACBM could occur during demolition of the pier structures. Exposure to LBP and ADL could occur during roadway excavation and the demolition of pier structures near roadways. Given the age of some of the infrastructure on-site, the potential also exists for soil to be affected by polychlorinated biphenyls (PCBs) from the use of electrical transformers prior to 1977.

### **Nearby Schools**

The closest school to the proposed project is Santa Monica High School, located approximately 0.30 mile to the east. Other schools in the area include John Muir Elementary School, located approximately 0.80 mile to the southeast, and Santa Monica Catholic Elementary School, located approximately 0.80 mile to the north.

## Airports

The project area is not within an airport land use plan area or 2 miles of a public airport or public use airport (Los Angeles County Airport Land Use Commission 2003). The closest airport is Santa Monica Airport, located approximately 2.06 miles to the east. Van Nuys Airport is approximately 12.5 miles to the north, and Los Angeles International Airport is approximately 5.2 miles to the southeast. There are no private airstrips in the vicinity of the proposed project.

## Emergency Response

The Santa Monica Fire Department (SMFD) is responsible for emergency medical services and fire protection in the project area. In the event of an emergency, SMFD implements all appropriate emergency procedures outlined in the 2013 *SEMS/NIMS Multi-Hazard Functional Emergency Plan* (City of Santa Monica 2013). The plan was developed to provide a planned response to emergency situations associated with natural disasters, technological incidents, and national security.

## Wildfire Risk

According to the California Fire Hazard Severity Zone Viewer from the Fire and Resource Assessment Program of the California Department of Forestry and Fire Protection (CAL FIRE), the proposed project is not within a Fire Hazard Severity Zone (California Department of Forestry and Fire Protection 2020).

### 2.12.3 Environmental Consequences

The alternatives under consideration include:

- Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier, namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) that would be used as a pedestrian access route (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent. Existing routes would remain available for access and would meet Americans with Disability Act standards. The replacement bridge would be approximately 448 feet long and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing bridge. Two variations for the bridge configuration are being considered, with the pedestrian path on opposite sides of the bridge.
- Under the No-Build Alternative, replacement of the seismically deficient Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. As time goes on, compromising conditions would worsen, and replacement of the bridge would eventually become imperative. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

Construction and operational impacts would be similar under either build alternative. Therefore, they are analyzed conjointly throughout the analysis. Project elements and potential impacts that are unique to a particular build alternative or design option are called out as necessary. Under the

No-Build Alternative, the project would not be constructed. There would be no adverse or significant hazardous materials impacts as a result of the proposed project.

### **2.12.3.1 Construction**

Construction for either build alternative would involve the routine handling of hazardous materials such as fuels, solvents, paints, oils, etc. The handling of hazardous materials would be in compliance with applicable regulations, such as the RCRA, Occupational Safety and Health Act, etc. (see Section 2.12.1.2, Regulatory Setting). Compliance with the aforementioned regulations, in combination with construction best management practices developed as part of a site-specific Stormwater Pollution Prevention Plan, would ensure that all hazardous materials would be handled properly. Furthermore, hazardous materials that are handled during construction are materials that are typically used in construction projects and do not include acutely hazardous materials.

Research conducted during the records review for the 2020 addendum to the May 2016 ISA identified six hazardous materials listings within the project footprint; all were identified as having low potential with respect to affecting the project. Seven nearby sites were identified in the 2020 addendum to the May 2016 ISA as having some potential to affect implementation of the proposed project. Taking into consideration the environmental history of the sites, their regulatory status, and their location in relation to the proposed project, the ISA determined that the likelihood for the proposed project being affected by these sites is low.

Under both build alternatives, groundwater is expected to be encountered during the drilling of pile foundations. As such, it is possible that construction associated with the bridge substructure could encounter groundwater, which would require dewatering. Although unlikely, if the groundwater encountered is contaminated, construction activities could have a potentially significant impact on construction personnel. However, the database evaluation conducted as part of the 2020 addendum to the May 2016 ISA did not identify any nearby hazardous materials sites with active groundwater impacts. Moreover, implementation of Mitigation Measure HAZ-6 would further address potential impacts associated with contaminated groundwater, in the unlikely event that it is encountered during construction activities.

Because of the age of the Pier Bridge, the potential exists for ACBM and LBP to be present. Prior to construction of the proposed improvements, ACBM and LBP surveys would be conducted to determine the presence of these materials (as described under Mitigation Measure HAZ-1). If these materials are detected on the site, appropriate safety measures would be implemented for their removal, transport, and disposal. Asbestos and lead-paint abatement would be required, in accordance with South Coast Air Quality Management District Rule 1403, prior to demolition and renovation; consequently, releases of these materials, which could pose a hazard to the public or the environment, are not anticipated.

As mentioned in Section 2.12.1.3, Affected Environment, the potential also exists for exposure to ADL during roadway excavation and the demolition of pier structures near roadways. Implementation of Mitigation Measure HAZ-2, below, would address potential adverse effects on construction personnel and the surrounding environment related to ADL exposure by requiring a site investigation to determine the extent of possible ADL contamination within the right-of-way.



In the event that PCB-contaminated soils are encountered during construction, Mitigation Measures HAZ-3 and HAZ-4, below, would be implemented to reduce potential adverse impacts associated with personnel exposure to PCB-affected soils.

There are no schools within 0.25 mile of the project location. Santa Monica High School is the closest, located approximately 0.30 mile to the east. In addition, the proposed project is not within an airport land use plan or the vicinity of a public or private airport. The closest airport to the project is Santa Monica Airport, located approximately 2.06 miles to the east.

Wildland fires are not a concern because Santa Monica Pier is in a highly developed area of Santa Monica. No wildland areas are in its vicinity.

Emergency access to the project site could be affected by construction. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles, thereby resulting in a potentially significant impact. To minimize the effect of this impact, the City would implement Mitigation Measure UES-2 to ensure adequate emergency access and traffic flow and maintain adequate response times for the Santa Monica Police Department (SMPD) and SMFD. As such, construction activities associated with the proposed project are not expected to significantly affect emergency medical services, police protection, or fire protection in the project area or implementation of the City Multi-Hazard Functional Emergency Plan.

### **2.12.3.2 Operation**

As mentioned under the construction analysis, there are no schools within 0.25 mile of the proposed project. In addition, the proposed project is not within an airport land use plan or the vicinity of a public or private airport. Wildland fires are not a concern because Santa Monica Pier is located in a highly developed area of Santa Monica.

The primary purpose of the proposed project is for the Pier Bridge to provide adequate and safe access to the pier for all users, including emergency vehicles. It is expected that emergency access would improve under operation of the proposed project.

### **2.12.4 Avoidance, Minimization, and/or Mitigation Measures**

As described in Section 2.12.1.3, Affected Environment, the project footprint was identified in six listings during preparation of the 2020 addendum to the May 2016 ISA. All listings were identified as having a low likelihood of affecting the project. In addition, detailed analysis of nearby hazardous materials sites did not identify any sites with a high likelihood of affecting the proposed project. Therefore, it is unlikely that construction activities for either of the alternatives would expose contaminated soil or groundwater from historic land uses, either within the project footprint or adjacent properties. However, the mitigation measures below are included to minimize potential effects related to exposure to LBP, ADL, ACBM, or (undocumented) contaminated soils or groundwater on construction personnel, the public, or the environment and maintain adequate emergency response times during construction.

**HAZ-1.** Prior to demolition work associated with the proposed improvements, ACBM and LBP surveys would be conducted to determine the presence of these materials. If discovered on site, asbestos and LBP hazards shall be abated in accordance with South

Coast Air Quality Management District Rule 1403 prior to any demolition or bridge rehabilitation activities.

**HAZ-2.** In accordance with hazardous waste concerns relative to the final project design plans, the following shall be provided to the Caltrans Office of Environmental Engineering for informational purposes:

- Final construction documents and plans for the preferred alternative,
- A hazardous waste Sampling and Analysis Plan, and
- A Site Investigation Report for ADL, which shall be performed to determine the extent of possible contamination within the state right-of-way.

The detailed construction document/plans shall include design features and information showing proposed structure/foundation work (i.e., footing/pile types, pile lengths, maximum excavation depths) and the new right-of-way. Based on the detailed construction document/plans, the following shall also be submitted to Caltrans Office of Environmental Engineering for informational purposes:

- Sampling and Analysis Plan (including a Health and Safety Plan) for soil and groundwater (including ADL),
- Asbestos-Containing Material and Lead-Based Paint Survey Work Plan for bridge demolition work (discussed above in HAZ-1), and
- Draft and Final Site Investigation Report, Asbestos-Containing Material Report, and Lead-Based Paint Survey Report.

Based on the Site Investigation Report and investigative results, the City will be required to prepare the necessary construction plans and specifications for remediation of hazardous materials (including soil and groundwater) as necessary. The specifications shall comply with current Caltrans Standard Special Provisions (SSPs) and Standard Plans. In addition, the City shall review and incorporate Caltrans SSPs for work related to:

- Disturbance of material containing hazardous waste with concentrations of ADL,
- Removal of material containing hazardous waste with concentrations of ADL,
- Removal of yellow traffic stripes and pavement markings with hazardous waste residue,
- Disturbance of existing paint on bridges,
- Removal of treated wood waste, and
- Removal of traffic stripes and pavement markings containing lead.

**HAZ-3.** Although contaminated soil is unlikely to be present on the project site, the contractor shall observe exposed soil for odor and/or visual evidence of contamination during excavation activities. If odiferous, stained, or discolored soil is discovered by the contractor during excavation or grading activities, all work shall stop and an investigation shall be designed and performed to verify the presence and extent of contamination at the

site. A qualified and approved environmental consultant shall perform the review and investigation. Results shall be reviewed and approved by the applicable local and state agencies prior to construction. The investigation shall include collecting samples for laboratory analysis and quantifying contaminant levels within the proposed excavation and surface disturbance areas. Subsurface investigation shall determine appropriate procedures for worker protection and hazardous material handling and disposal procedures appropriate for the project site.

**HAZ-4.** Areas with contaminated soil that has been determined to be hazardous waste shall be excavated by personnel who have been trained through the Occupational Safety and Health Administration–recommended 40-hour safety program (29 Code of Federal Regulations 1910.120), with an approved plan for excavation, control of contaminant releases to the air, and off-site transport or on-site treatment. Health and safety plans prepared by a qualified and approved industrial hygienist shall be developed to protect the public and all workers in the construction area. Health and safety plans shall be reviewed and approved by the appropriate local and state agencies.

**HAZ-5.** Should construction activities result in the removal of yellow or white painted or thermoplastic traffic stripes, the age of the traffic striping shall be determined. If lead or chromium is present in the materials at or above specified hazardous waste levels, it shall be appropriately captured and transported, then disposed of at a permitted Class I disposal facility in California. In addition, a project-specific Lead Compliance Plan shall be required to prevent or minimize worker exposure to lead while handling materials containing lead. Attention shall be directed to Title 8, California Code of Regulations, Section 1532.1, Lead.

**HAZ-6.** Although there is no evidence that groundwater in the vicinity of the pier contains contaminants, excavations below the elevation of groundwater could experience strong seepage and require dewatering. The contractor shall observe groundwater for visual evidence of contamination or unusual odors. The contractor shall comply with all applicable regulations and permit requirements for construction dewatering. This may include laboratory testing, treatment of contaminated groundwater, or other disposal options.

The following mitigation measure shall be implemented during project construction to ensure adequate access and minimal impacts on emergency response times for fire and police services in the vicinity of the proposed project:

**UES-2.** Both before construction begins AND thereafter, the City project manager and construction contractor shall regularly notify and coordinate with the SMPD and SMFD during project design and scheduling, particularly in regard to any street or lane closures related to the proposed project before construction begins.

## 2.12.5 Cumulative Impacts

### 2.12.5.1 Affected Environment

**Resource Study Area:** The proposed project is located in the city of Santa Monica, Los Angeles County, California, in a densely populated and developed area. The project site is surrounded by residential properties, businesses, roads, public walkways, and a park. Structures are found on all sides of the Pier Bridge as well as underneath. The Pier Bridge (constructed in 1939), extends west from the intersection of Ocean Avenue and Colorado Avenue to the Santa Monica Pier within the downtown district of the city.

The resource study area (RSA) for hazardous materials analysis consists of the project footprint and, as a result of the environmental database search, nearby sites included in federal and state lists of known or suspected contaminated sites, known handlers or generators of hazardous waste, known waste disposal facilities, and permitted underground storage tanks.

**Existing Conditions within RSA:** Analysis of environmental records identified low-risk historical hazardous material information regarding the project footprint. Furthermore, it was determined in the EIR/EA that the likelihood of the proposed project to be affected by off-site facilities was low.

Because of the age of the Pier Bridge infrastructure, the potential exists for ACBM, LBP, ADL, and PCBs to be present. As such, exposure to these materials could occur during demolition, grading, or excavation activities.

### 2.12.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within RSA:** As discussed above, the potential exists for ACBM, LBP, ADL, and PCBs to be present within the project footprint; however, with implementation of Mitigation Measures HAZ-1 through HAZ-6, potential adverse effects associated with exposure to these materials would be minimized. As such, any exposure to these materials would occur only within the construction footprint and would be handled appropriately. Therefore, the potential impacts associated with the proposed project would not contribute to hazardous materials impacts occurring outside the project footprint.

**Cumulative Impact Potential:** The proposed project would not contribute to hazardous materials impacts from other projects in the area; therefore, potential impacts would not be cumulatively considerable.

### 2.12.5.3 Avoidance, Minimization, and/or Mitigation Measures

No cumulative impacts are anticipated, and no avoidance, minimization, and/or mitigation measures are proposed.

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## 2.13 Air Quality

### 2.13.1 Regulatory Setting

The federal Clean Air Act (FCAA), as amended, is the primary federal law that governs air quality; the California Clean Air Act (CCAA) is its companion state law. These laws, and related regulations from the U.S. Environmental Protection Agency (EPA) and the California Air Resources Board (CARB), set standards for the concentration of pollutants in the air. At the federal level, these standards are called National Ambient Air Quality Standards (NAAQS). The NAAQS and state ambient air quality standards have been established for six criteria pollutants that have been linked to potential health concerns: carbon monoxide (CO); nitrogen dioxide (NO<sub>2</sub>); ozone (O<sub>3</sub>); particulate matter, which is broken down for regulatory purposes into particles 10 micrometers in diameter or smaller (PM<sub>10</sub>) and particles of 2.5 micrometers in diameter and smaller (PM<sub>2.5</sub>); lead; and sulfur dioxide (SO<sub>2</sub>). In addition, state standards exist for visibility-reducing particles, sulfates, hydrogen sulfide, and vinyl chloride. The NAAQS and state standards, which are set at levels that protect public health with a margin of safety, are subject to periodic review and revision. Both state and federal regulatory schemes also cover toxic air contaminants (TACs); some criteria pollutants are also air toxics or may include certain air toxics in their general definition.

Federal air quality standards and regulations provide the basic scheme for project-level air quality analysis under the National Environmental Policy Act (NEPA). In addition to this environmental analysis, a parallel “conformity” requirement under the FCAA also applies.

#### 2.13.1.2 Conformity

The conformity requirement is based on FCAA Section 176(c), which prohibits the U.S. Department of Transportation and other federal agencies from funding, authorizing, or approving plans, programs, or projects that do not conform to the State Implementation Plan (SIP) for attaining the NAAQS. “Transportation conformity” applies to highway and transit projects and takes place on two levels: the regional (or planning or programming) level and the project level. The proposed project must conform at both levels to be approved.

Conformity requirements apply only in nonattainment and “maintenance” (former nonattainment) areas for the NAAQS and only for the specific NAAQS that are or were in violation. EPA regulations at 40 Code of Federal Regulations (CFR) 93 govern the conformity process. Conformity requirements do not apply in unclassifiable/attainment areas with respect to the NAAQS and do not apply at all with respect to state standards, regardless of the status of the area.

Regional conformity is concerned with how well the regional transportation system supports plans for attaining the NAAQS for CO, NO<sub>2</sub>, O<sub>3</sub>, PM<sub>10</sub> and PM<sub>2.5</sub>, and, in some areas (although, not in California), SO<sub>2</sub>. California has nonattainment or maintenance areas for all of these transportation-related “criteria pollutants,” except SO<sub>2</sub>, as well as a nonattainment area for lead; however, lead is not currently required by the FCAA to be covered in transportation conformity analysis. Regional conformity is based on an emissions analysis of Regional Transportation Plans (RTPs) and Federal Transportation Improvement Programs (FTIPs); these

include all transportation projects planned for a region over a period of at least 20 years for the RTP and 4 years for the FTIP. RTP and FTIP conformity uses travel demand and emissions models to determine whether or not project implementation would conform to emissions budgets, or other tests, at various analysis years and the requirements of the FCAA and the SIP would be met. If the conformity analysis is successful, the Metropolitan Planning Organization (MPO), Federal Highway Administration (FHWA), and Federal Transit Administration (FTA) make their determinations that the RTP and FTIP are in conformity with the SIP for achieving the goals of the FCAA. Otherwise, the projects in the RTP and/or FTIP must be modified until conformity is attained. If the design concept and scope, as well as the “open-to-traffic” schedule, of a proposed transportation project are the same as described in the RTP and FTIP, then the proposed project meets regional conformity requirements for purposes of project-level analysis.

Project-level conformity is achieved by demonstrating that the project comes from a conforming RTP and Transportation Improvement Plan (TIP), the project’s design concept and scope<sup>1</sup> have not changed significantly from the concept and scope in the RTP and TIP, project analyses have used the latest planning assumptions and EPA-approved emissions models, and, in particulate matter nonattainment or maintenance areas, the project complies with control measures in the SIP. Furthermore, additional analyses (known as hot-spot analyses) may be required for projects in CO and particulate matter nonattainment or maintenance areas to examine localized air quality impacts.

### **2.13.2 Affected Environment**

Unless otherwise noted, the information in this section is summarized from the September 2016 air quality study report and the July 2020 addendum to the air quality study report.

Ambient air quality is affected by climatological conditions, topography, and the types and amounts of pollutants emitted. The following discussion describes relevant characteristics of the South Coast Air Basin (Basin) and provides an overview of conditions that affect ambient air pollutant concentrations in the Basin.

#### **2.13.2.1 Topography and Climate**

The proposed project is located within the Basin, which covers the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties as well as all of Orange County. The Basin is bordered by the Pacific Ocean to the west, the South Central Coast Air Basin to the north, the Mojave Desert Air Basin and San Joaquin Valley Air Basin to the north and east, and the San Diego County Air Basin to the south.

The regional climate within the Basin is considered semi-arid, characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. The Santa Monica Pier weather monitoring station (ID 047953) is 0.3 mile southwest of the project site. Given its proximity, historic climatic conditions at the Santa Monica Pier station are representative of prevailing climatic conditions at the project site. The annual average high and low temperatures at Santa Monica Pier are 67°F and 55°F, respectively. Total annual

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<sup>1</sup> “Design concept” means the type of facility that has been proposed, such as a freeway or arterial highway. “Design scope” refers to those aspects of the project that would clearly affect capacity, such as the number of lanes or the length of the project, and therefore affect regional emissions analysis.



precipitation averages 13 inches, which occurs mostly during the winter but infrequently during the summer (Western Regional Climate Center 2015). Wind monitoring data recorded at the Santa Monica station indicate that the predominant wind direction in the project vicinity is from the southwest, with an average wind speed of 6 miles per hour (mph) (Western Regional Climate Center 2015).

The Basin frequently experiences weather conditions that trap air pollutants, which occurs as a result of two primary phenomena. The first concerns temperature inversions. The Basin has persistent temperature inversions, formed by warmer air in an upper layer and cooler air in a lower layer. Temperature inversions limit the vertical dispersion of air contaminants, holding them relatively close to the ground. These inversions break when the sun heats the lower layer, allowing the two layers to mix and the previously trapped air to leave the Basin. The second phenomenon concerns trapped air pollutants in the Basin that form during periods with stagnant wind conditions, thereby limiting the movement of air pollutants. The combination of stagnant wind conditions and low inversions produces the greatest pollutant concentrations. Conversely, on days with no inversion or high wind speeds, ambient air pollutant concentrations are the lowest.

### **2.13.2.2 Description of Pollutants**

The following is a general description of the pollutants for which there are standards (criteria pollutants) and ambient measurements. A description of TACs and naturally occurring asbestos (NOA), for which there are no standards, is also included. O<sub>3</sub> and its precursors, reactive organic gases (ROGs) and nitrogen oxides (NO<sub>x</sub>), sulfates, visibility-reducing particles, NO<sub>2</sub>, and PM<sub>10</sub> and PM<sub>2.5</sub>, are considered to be regional pollutants because they, or their precursors, affect air quality on a regional scale. NO<sub>2</sub> reacts photochemically with ROGs to form O<sub>3</sub>, while PM<sub>10</sub> and PM<sub>2.5</sub> can form as a result of the reaction of atmospheric chemicals, including NO<sub>x</sub>, sulfates, nitrates, and ammonia. These processes can occur at some distance downwind of the source of the pollutants. Pollutants such as CO, SO<sub>2</sub>, lead, and particulate matter are considered to be local pollutants because they tend to disperse rapidly with distance from the source. Although PM<sub>10</sub> and PM<sub>2.5</sub> are considered to be regional pollutants, they can also be localized pollutants because direct emissions of particulate matter from automobile exhaust can accumulate in the air locally near the emissions source.

Figure 2.13-1 provides state and federal standards; Table 2.13-1 presents recent ambient air quality monitoring data for the project vicinity. Although NOA is common in certain counties of California, it is not likely to be found in Santa Monica (California Department of Conservation 2000).

### **2.13.2.3 Ozone**

O<sub>3</sub> is a respiratory irritant that increases susceptibility to respiratory infections. It is also an oxidant that can cause substantial damage to vegetation and other materials.

O<sub>3</sub>, which is a regional pollutant, is generally not emitted directly into the air but, rather, formed by a photochemical reaction in the atmosphere. O<sub>3</sub> precursors, which include ROG and NO<sub>x</sub>, react in the atmosphere in the presence of sunlight to form O<sub>3</sub>. Because photochemical reaction rates depend on the intensity of ultraviolet light and air temperature, O<sub>3</sub> is primarily a summer air pollution problem. In addition, photochemical reactions take time to occur. Therefore, high O<sub>3</sub> levels often occur downwind of the emissions source.

Ambient Air Quality Standards						
Pollutant	Averaging Time	California Standards <sup>1</sup>		National Standards <sup>2</sup>		
		Concentration <sup>3</sup>	Method <sup>4</sup>	Primary <sup>3,5</sup>	Secondary <sup>3,6</sup>	Method <sup>7</sup>
Ozone (O <sub>3</sub> ) <sup>8</sup>	1 Hour	0.09 ppm (180 µg/m <sup>3</sup> )	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m <sup>3</sup> )		0.070 ppm (137 µg/m <sup>3</sup> )		
Respirable Particulate Matter (PM10) <sup>9</sup>	24 Hour	50 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	150 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m <sup>3</sup>		—		
Fine Particulate Matter (PM2.5) <sup>9</sup>	24 Hour	—	—	35 µg/m <sup>3</sup>	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m <sup>3</sup>	Gravimetric or Beta Attenuation	12.0 µg/m <sup>3</sup>	15 µg/m <sup>3</sup>	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m <sup>3</sup> )	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m <sup>3</sup> )	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m <sup>3</sup> )		9 ppm (10 mg/m <sup>3</sup> )	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m <sup>3</sup> )		—	—	
Nitrogen Dioxide (NO <sub>2</sub> ) <sup>10</sup>	1 Hour	0.18 ppm (339 µg/m <sup>3</sup> )	Gas Phase Chemiluminescence	100 ppb (188 µg/m <sup>3</sup> )	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m <sup>3</sup> )		0.053 ppm (100 µg/m <sup>3</sup> )	Same as Primary Standard	
Sulfur Dioxide (SO <sub>2</sub> ) <sup>11</sup>	1 Hour	0.25 ppm (655 µg/m <sup>3</sup> )	Ultraviolet Fluorescence	75 ppb (196 µg/m <sup>3</sup> )	—	Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m <sup>3</sup> )	
	24 Hour	0.04 ppm (105 µg/m <sup>3</sup> )		0.14 ppm (for certain areas) <sup>11</sup>	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas) <sup>11</sup>	—	
Lead <sup>12,13</sup>	30 Day Average	1.5 µg/m <sup>3</sup>	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m <sup>3</sup> (for certain areas) <sup>12</sup>	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m <sup>3</sup>		
Visibility Reducing Particles <sup>14</sup>	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	No National Standards		
Sulfates	24 Hour	25 µg/m <sup>3</sup>	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m <sup>3</sup> )	Ultraviolet Fluorescence			
Vinyl Chloride <sup>12</sup>	24 Hour	0.01 ppm (26 µg/m <sup>3</sup> )	Gas Chromatography			

See footnotes on next page ...

See footnotes on next page ...

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Figure 2.13-1. Ambient Air Quality Standards

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM<sub>10</sub>, PM<sub>2.5</sub>, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM<sub>10</sub>, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m<sup>3</sup> is equal to or less than one. For PM<sub>2.5</sub>, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM<sub>2.5</sub> primary standard was lowered from 15 µg/m<sup>3</sup> to 12.0 µg/m<sup>3</sup>. The existing national 24-hour PM<sub>2.5</sub> standards (primary and secondary) were retained at 35 µg/m<sup>3</sup>, as was the annual secondary standard of 15 µg/m<sup>3</sup>. The existing 24-hour PM<sub>10</sub> standards (primary and secondary) of 150 µg/m<sup>3</sup> also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO<sub>2</sub> standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO<sub>2</sub> national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.  
  
Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m<sup>3</sup> as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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**Figure 2.13-1. Ambient Air Quality Standards cont.**

**Table 2.13-1. Air Quality Data from West Los Angeles-VA Hospital,<sup>a</sup> Los Angeles-Westchester Parkway,<sup>b</sup> and Compton-700 N. Bullis Road<sup>c</sup> Monitoring Stations**

Pollutant Standards	2018	2019	2020
<b>Ozone (O<sub>3</sub>)<sup>a</sup></b>			
Maximum 1-hour concentration (ppm)	0.094	0.086	0.134
Maximum 8-hour concentration (ppm)	0.073	0.075	0.092
Number of days standard exceeded <sup>d</sup>			
CAAQS 1-hour concentration (> 0.09 ppm)	0	0	6
CAAQS/NAAQS 8-hour concentration (> 0.070 ppm)	2	1	8
<b>Carbon Monoxide (CO)<sup>a</sup></b>			
Maximum 8-hour concentration (ppm)	1.3	1.2	1.2
Number of days standard exceeded <sup>d</sup>			
NAAQS/CAAQS 8-hour concentration (> 9 ppm)	0	0	0
<b>Nitrogen Dioxide (NO<sub>2</sub>)<sup>a</sup></b>			
Maximum 1-hour concentration (ppm)	0.0647	0.0488	0.0766
Annual average concentration (ppm); (CAAQS > 0.030 ppm)	*	0.009	0.010
Number of days standard exceeded			
NAAQS 1-hour concentration (> 0.100 ppm)	0	0	0
<b>Particulate Matter (PM<sub>10</sub>)<sup>b</sup></b>			
National <sup>e</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	45.3	62.1	55.6
National <sup>e</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	43.4	53.2	43.3
State <sup>f</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	45.1	61.8	55.5
State <sup>f</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	43.3	53.0	43.1
National annual average concentration (µg/m <sup>3</sup> )	17.6	19.7	22.0
State annual average concentration (µg/m <sup>3</sup> ) <sup>g</sup>	*	19.5	*
Number of days standard exceeded <sup>h</sup>			
CAAQS 24-hour concentration (> 50 µg/m <sup>3</sup> )	*	13.0	*
NAAQS 24-hour concentration (> 150 µg/m <sup>3</sup> )	0	0	0
<b>Particulate Matter (PM<sub>2.5</sub>)<sup>c</sup></b>			
National <sup>e</sup> maximum 24-hour concentration (µg/m <sup>3</sup> )	49.4	39.5	67.5
National <sup>e</sup> second-highest 24-hour concentration (µg/m <sup>3</sup> )	43.0	32.7	64.4
National <sup>e</sup> third-highest 24-hour concentration (µg/m <sup>3</sup> )	34.8	31.7	63.3
National <sup>e</sup> fourth-highest 24-hour concentration (µg/m <sup>3</sup> )	34.2	30.9	60.3
National annual average concentration (µg/m <sup>3</sup> )	13.2	10.8	14.6
State annual average concentration (µg/m <sup>3</sup> ) <sup>g</sup>	13.3	10.9	14.7
Number of days standard exceeded <sup>h</sup>			
NAAQS 24-hour concentration (> 35 µg/m <sup>3</sup> )	2	1	19

Sources: California Air Resources Board 2020; U.S. Environmental Protection Agency 2020.

ppm = parts per million; NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; µg/m<sup>3</sup> = micrograms per cubic meter; \* = data not available.<sup>a</sup>. Measurements from West Los Angeles-VA Hospital CARB monitoring station.<sup>b</sup>. Measurements from Los Angeles-Westchester Parkway CARB monitoring station.<sup>c</sup>. Measurements taken from Compton-700 N. Bullis Road CARB monitoring station.

<sup>d</sup>. An exceedance is not necessarily a violation.

<sup>e</sup>. National statistics are based on standard conditions data. In addition, national statistics are based on samplers using federal reference or equivalent methods.

<sup>f</sup>. State statistics are based on local conditions data, except in the South Coast Air Basin, an area where statistics are based on standard conditions data. In addition, state statistics are based on California-approved samplers.

<sup>g</sup>. State criteria for ensuring that data are sufficiently complete for calculating valid annual averages are more stringent than the national criteria.

<sup>h</sup>. Mathematical estimate of how many days concentrations would have been measured as higher than the level of the standard had each day been monitored. Values have been rounded.

EPA revoked the old federal 1-hour O<sub>3</sub> standard on June 15, 2005; the new federal 8-hour O<sub>3</sub> standard became effective as of that same date. A state standard for O<sub>3</sub> has been established for 1-hour and 8-hour averaging periods. The state 1-hour and 8-hour O<sub>3</sub> standards are 0.09 part per million (ppm) and 0.070 ppm, respectively, and not to be exceeded. The federal 8-hour O<sub>3</sub> standard is 0.070 ppm and not to be exceeded more than three times in any 3-year period. Areas with the highest 8-hour concentrations and the greatest number of days that exceeded the new standard were given the longest time to reach attainment.

#### **2.13.2.4 Carbon Monoxide**

CO is a public health concern because it combines readily with hemoglobin and reduces the amount of oxygen transported in the bloodstream. CO can cause health problems such as fatigue, headache, confusion, dizziness, and even death.

Motor vehicles are the dominant source of CO emissions in most areas. High CO levels develop primarily during winter when light winds combine with ground-level temperature inversions (typically from evening through early morning). These conditions result in the reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emissions rates at low air temperatures.

State and federal CO standards have been set for 1-hour and 8-hour averaging times. The state 1-hour standard is 20 ppm by volume, whereas the federal 1-hour standard is 35 ppm. Both the state and federal standard for the 8-hour averaging period is 9 ppm.

#### **2.13.2.5 Nitrogen Oxides**

NO<sub>x</sub> represents a family of highly reactive gases that are primary precursors to the formation of ground-level O<sub>3</sub>. These gases react in the atmosphere to form acid rain. NO<sub>x</sub> is emitted from combustion processes in which fuel is burned at high temperatures. Motor vehicle exhaust is a primary example; stationary sources include electric utilities and industrial boilers. A brownish gas, NO<sub>2</sub> is a strong oxidizing agent that reacts in the air to form corrosive nitric acid as well as toxic organic nitrates.

NO<sub>x</sub> can irritate the lungs, cause lung damage, and lower resistance to respiratory infections such as influenza. The effects of short-term exposure are still unclear, but continued or frequent exposure to concentrations that are typically much higher than those normally found in the ambient air may cause an increased incidence of acute respiratory illness in children. Health effects associated with NO<sub>x</sub> are an increase in the incidence of chronic bronchitis and lung

irritation. Chronic exposure to  $\text{NO}_2$  may lead to eye and mucous membrane aggravation, along with pulmonary dysfunction.  $\text{NO}_x$  can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals as a result of the production of particulate nitrates. Airborne  $\text{NO}_x$  also can impair visibility.  $\text{NO}_x$  is a major component of acid deposition in California and may affect both terrestrial and aquatic ecosystems.  $\text{NO}_x$  in the air is a potentially significant contributor to a number of environmental effects, such as acid rain and eutrophication in coastal waters. Eutrophication occurs when a body of water suffers an increase in nutrients that reduces the amount of oxygen in the water, producing an environment that is destructive to fish and other animal life.

The state  $\text{NO}_2$  standards are 0.18 ppm as a 1-hour average and 0.030 ppm as an annual arithmetic mean. The federal  $\text{NO}_2$  standards are 0.100 ppm as a 1-hour average and 0.053 ppm as an annual arithmetic mean.

### **2.13.2.6 Sulfur Oxides**

Sulfur oxides ( $\text{SO}_x$ ) are a family of colorless, pungent gases, including  $\text{SO}_2$ , that form primarily through the combustion of sulfur-containing fossil fuels (mainly coal and oil), metal smelting, and other industrial processes.  $\text{SO}_x$  can react to form sulfates, which significantly reduce visibility.  $\text{SO}_x$  is a precursor to particulate matter formation, which is in nonattainment status in the project area.

The major health concerns associated with exposure to high concentrations of  $\text{SO}_x$  include effects related to breathing, respiratory illness, alterations in pulmonary defenses, and aggravation of existing cardiovascular diseases. Major subgroups of the population that are most sensitive to  $\text{SO}_x$  are individuals with cardiovascular disease or chronic lung disease (such as bronchitis or emphysema), children, and the elderly. Emissions of  $\text{SO}_x$  can also damage the foliage of trees and agricultural crops. Together,  $\text{SO}_x$  and  $\text{NO}_x$  are the major precursors to acid rain, which is associated with the acidification of lakes and streams and accelerated corrosion on buildings and monuments.

The state standards are 0.25 ppm for the 1-hour averaging period and 0.04 ppm for the 24-hour averaging period. The federal standard is 0.075 ppm for the 1-hour averaging period (*Federal Register* [FR], Volume 75, page 35520).

### **2.13.2.7 Inhalable Particulate Matter**

Particulates can damage human health and retard plant growth. Health concerns associated with suspended particulate matter focus on those particles that are small enough to reach the lungs when inhaled. Particulates also reduce visibility and corrode materials. The federal and state ambient air quality standard for particulate matter applies to two classes of particulates:  $\text{PM}_{2.5}$  and  $\text{PM}_{10}$ . The state  $\text{PM}_{10}$  standards are 50 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ) as a 24-hour average and 20  $\mu\text{g}/\text{m}^3$  as an annual arithmetic mean. The federal  $\text{PM}_{10}$  standard is 150  $\mu\text{g}/\text{m}^3$  as a 24-hour average. For  $\text{PM}_{2.5}$ , the state has adopted a standard of 12  $\mu\text{g}/\text{m}^3$  for the annual arithmetic mean. The federal  $\text{PM}_{2.5}$  standards are 35  $\mu\text{g}/\text{m}^3$  for the 24-hour average and 12  $\mu\text{g}/\text{m}^3$  for the annual arithmetic mean.

### **2.13.2.8 Lead**

Lead is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment; therefore, it essentially persists forever. Automobiles were once a major source of airborne lead because, prior to being phased out, lead was used as a gasoline additive to increase the octane rating. However, in recent years, ambient concentrations of lead have dropped dramatically.

Short-term exposure to high levels of lead can cause vomiting, diarrhea, convulsions, coma, or even death. However, even small amounts of lead can be harmful, especially to infants, young children, and pregnant women. Symptoms of long-term exposure to lower levels of lead may be less noticeable but still serious. Anemia is common, and damage to the nervous system may cause impaired mental function. Other symptoms are appetite loss, abdominal pain, constipation, fatigue, sleeplessness, irritability, and headache. Continued excessive exposure, as in an industrial setting, can affect the kidneys.

Lead exposure is most serious for young children because they absorb lead more easily than adults and are more susceptible to its harmful effects. Even low-level exposure may harm the intellectual development, behavior, size, and hearing of infants. During pregnancy, and especially in the last trimester, lead can cross the placenta and affect the fetus. Female workers exposed to high lead levels have more miscarriages and stillbirths.

The state lead standard is  $1.5 \mu\text{g}/\text{m}^3$  over a 30-day average; the federal lead standards are  $1.5 \mu\text{g}/\text{m}^3$  averaged over a calendar quarter and  $0.15 \mu\text{g}/\text{m}^3$  as a rolling 3-month average.

### **2.13.2.9 Mobile-Source Air Toxics/Toxic Air Contaminants**

TACs may cause an increase in mortality or serious illness or pose a present or potential hazard to human health. The health effects of TACs include cancer, birth defects, neurological damage, damage to the body's natural defense system, and diseases that lead to death. In 1998, following a 10-year scientific assessment process, CARB identified particulate matter from diesel-fueled engines as a TAC. Compared with other air toxics that CARB has identified and controlled, diesel particulate matter (DPM) emissions are estimated to be responsible for about 70 percent of the total ambient air toxics risk (California Air Resources Board 2000).

Through the 1990 amendments to the Clean Air Act, Congress mandated EPA to regulate 188 air toxics, which are also known as hazardous air pollutants. In EPA's latest final rule (2007) on the control of hazardous air pollutants from mobile sources (72 FR 8430), the agency identified 93 compounds that are emitted from mobile sources, which are listed in EPA's Integrated Risk Information System. From this list of 93 compounds, EPA identified nine compounds with significant contributions from mobile sources that are among the national and regional cancer-risk drivers or contributors as well as non-cancer hazard contributors from the 2011 National Air Toxics Assessment. These are 1,3-butadiene, acetaldehyde, acrolein, benzene, DPM, ethylbenzene, formaldehyde, naphthalene, and polycyclic organic matter (Federal Highway Administration and U.S. Environmental Protection Agency 2016).



The 2007 EPA rule required controls to dramatically decrease mobile-source air toxic (MSAT) emissions through cleaner fuels and cleaner engines. According to an FHWA analysis, using EPA's MOVES2014a model, even if vehicle miles traveled increases by 45 percent from 2010 to 2050, as forecast, a combined reduction of 91 percent in total annual emissions for the priority MSATs is projected for the same time period (Federal Highway Administration and U.S. Environmental Protection Agency 2016).

#### **2.13.2.10 Naturally Occurring Asbestos**

NOA is a fibrous material found in certain types of rock formations. It is the result of natural geologic processes and commonly found near earthquake faults in California. Some rock types that are known to produce asbestos fibers are varieties of chrysotile, crocidolite, amosite, anthophyllite, tremolite, and actinolite.

Asbestos is harmless when it is left undisturbed under the soil, but if it becomes airborne, it can cause serious health problems. Human disturbance, or natural weathering, can break down asbestos into microscopic fibers that can be easily inhaled. Inhalation of asbestos fibers can cause lung cancer, mesothelioma (a rare form of cancer found in the lining of internal organs), and asbestosis (a progressive non-cancer disease of the lungs involving a buildup of scar tissue, which inhibits breathing) (U.S. Environmental Protection Agency 2008a, 2008b).

Both EPA and CARB have issued guidance for reducing exposures to NOA. EPA's suggested measures include leaving NOA material undisturbed, covering or capping NOA material, limiting dust-generating activities, or excavating and disposing of NOA material (U.S. Environmental Protection Agency 2008c). CARB has adopted Airborne Toxic Control Measures, which are required for road construction and maintenance projects, unless the project is found to be exempt. The measures include stabilizing unpaved surfaces that are subject to vehicle traffic, reducing vehicle speeds, wetting or chemically stabilizing storage piles, and eliminating track-out material from equipment (California Air Resources Board 2008).

#### **2.13.2.11 Existing Air Quality Conditions**

The South Coast Air Quality Management District (SCAQMD) operates and maintains a network of ambient air monitoring stations throughout the Basin. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether the ambient air quality meets the NAAQS and the California Ambient Air Quality Standards (CAAQS). The ambient monitoring station most representative of air quality conditions, and closest to the project site, is the Los Angeles-VA Hospital CARB monitoring station (CARB 70091), which is near the VA Greater Los Angeles Healthcare System facility, approximately 3.5 miles northeast of the project site. The Los Angeles-VA Hospital CARB monitoring station measures 8-hour O<sub>3</sub>, 1-hour O<sub>3</sub>, NO<sub>2</sub>, and CO concentrations. The closest monitoring station that measures PM<sub>10</sub> is the Los Angeles-Westchester Parkway CARB monitoring station (CARB 70111), which is near Los Angeles International Airport, approximately 5.4 miles southeast of the project site. The closest monitoring station to the project site that monitors PM<sub>2.5</sub> is the Compton-700 North Bullis Road CARB monitoring station (CARB 70112), which is at the Compton Chamber of Commerce, approximately 18.3 miles southeast of the project site.

Monitoring data show pollutant concentrations and exceedances of state and federal standards at the West Los Angeles-VA Hospital monitoring station, the Los Angeles-Westchester Parkway monitoring station, and the Compton-700 North Bulls Road monitoring station (Table 2.13-1). During the 2018–2020 monitoring period, exceedances of the state 1-hour O<sub>3</sub>, 8-hour O<sub>3</sub>, and PM<sub>10</sub> standards were recorded at the monitoring stations. Exceedances of the federal 8-hour O<sub>3</sub> and PM<sub>2.5</sub> standards were also recorded. Exceedances of the state and federal 8-hour O<sub>3</sub> standards occurred twice in 2018, once in 2019, and eight times in 2020. Exceedances of the state 1-hour O<sub>3</sub> standard occurred six times in 2020. Exceedances of the federal PM<sub>2.5</sub> standard occurred twice in 2018, once in 2019, and 19 times in 2020. Exceedances of the state PM<sub>10</sub> standard occurred 13 times in 2019. No exceedances of the federal NO<sub>2</sub> or PM<sub>10</sub> standards or federal/state CO standards were recorded during the 3-year monitoring period.

### **2.13.2.12 Sensitive Receptor Locations**

Some land uses are considered more susceptible to adverse impacts from air pollution than others. These locations are commonly referred to as *sensitive receptors* and include schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, hospitals, retirement homes, and residences. As shown in Figure 2.13-2, there are several sensitive receptors within 0.25 mile of the areas where most of the construction work would occur.

The closest sensitive receptors to the project site are the residences above the restaurants and shops on Ocean Front Walk, immediately south of the existing pier alignment. Other sensitive receptors include the 25-unit New Hope Apartments residential complex on the northwest corner of Appian Way and Seaside Terrace (1637 Appian Way). Recreational uses within 0.25 mile of the project limits include Tongva Park, located southeast of the Santa Monica Pier Bridge (Pier Bridge)/Ocean Avenue intersection; Palisades Park, located to the north; the Carousel Park area of the pier; Pacific Park, at the end of the pier; and Santa Monica State Beach, located north and south of the project site.

## **2.13.3 Environmental Consequences**

### **2.13.3.1 Regional and Project-Level Conformity**

The 1990 amendments to the Clean Air Act require projects to conform to the SIP. Furthermore, direct and indirect emissions resulting from federal actions or funding are not to produce new air quality violations or worsen existing violations. The FCAA specifically instructs EPA to develop guidelines for identifying when vehicle-related projects can increase local concentrations of CO, PM<sub>10</sub>, and PM<sub>2.5</sub> by altering traffic patterns. Conformity requirements apply only to emissions after completion of a project; they do not apply to construction impacts. Build Alternatives 1 and 2 (LPA) are exempt from federal transportation conformity requirements, per 40 CFR 93.126, under the safety exemption for “widening narrow pavements or reconstructing bridges (no additional travel lanes).”

The project build alternatives are included in the Southern California Association of Governments (SCAG) 2020–2045 Connect SoCal RTP/Sustainable Communities Strategy (SCS) under project number LA000800 as well as SCAG 2021 FTIP under project number LA0G1296. The 2021 FTIP description of the project is as follows: “BRIDGE NO. 53C1900, COLORADO

AVE OVER APPIAN WAY/PROMENADE, 0.6 MI W/O LINCOLN BLVD. Replace existing 2 lane bridge with new 2 lane bridge. Toll Credits to be utilized in FY 2019-20 for \$97K in Preliminary Engineering (P.E.). Toll Credits to be utilized in FY 2021/22 for \$240K in P.E. \$3.077M in Toll Credits to be utilized in FY 2024/25, \$2,980 for construction phase and \$97 for ROW. High-Cost project agreement must be signed. (Lump Sum bridge project 53C1900 (5107-033)).” The build alternatives are also included in the 2019 Federal Statewide Transportation Improvement Program (FSTIP) and proposed for funding from the Highway Bridge Program, with individual project ID BHLO-5107(033). The Pier Bridge qualifies for replacement under the Highway Bridge Program and is eligible for toll-credit funding. The SCAG 2020–2045 RTP/SCS was determined to have met all air quality conformity requirements by FHWA and FTA on June 5, 2020. The SCAG 2021 FTIP was determined to have met air quality conformity requirements by FHWA and FTA on April 16, 2021.

### **Regional Criteria Pollutant Emissions**

During project operation, criteria pollutant emissions would result from the use of vehicles within the study area. As stated in the transportation analysis prepared for the proposed project, neither Build Alternative 1 nor 2 (LPA) would generate additional vehicle miles traveled on the regional roadway network because the project would not introduce new land uses.

Build Alternatives 1 and 2 (LPA) would involve reconstruction of the Pier Bridge at its existing location. Vehicles would access the pier in the same fashion as under the no-build condition. There would be no difference in operational travel characteristics between the No-Build Alternative and the build alternatives. The build alternatives would not add vehicular capacity to the bridge or parking capacity on the pier or elsewhere in the project areas. No increase in vehicle miles traveled would occur under the build alternatives compared to the No-Build Alternative. Consequently, localized criteria pollutant emissions under the build alternatives would be indistinguishable from those of the No-Build Alternative. As such, operational impacts related to regional criteria pollutant emissions would be less than significant under CEQA and not adverse under NEPA.

### **Localized Criteria Pollutant Emissions**

#### ***Carbon Monoxide Hot-Spot Evaluation***

Because Build Alternatives 1 and 2 (LPA) would be exempt from federal transportation conformity requirements, a formal CO hot-spot analysis is not required. Because there would be no change in trip redistribution under the build alternatives compared with the No-Build Alternative, there would be no change in local CO emissions or concentrations at any intersection location.

#### **Localized PM<sub>2.5</sub> and PM<sub>10</sub> Hot-Spot Evaluation**

Because Build Alternatives 1 and 2 (LPA) would be exempt from federal transportation conformity requirements, a formal PM hot-spot analysis is not required. There would be no changes to vehicles miles traveled or trip distribution under the build alternatives compared with the No-Build Alternative, and there would be no change in local PM emissions or concentrations at any intersection location.



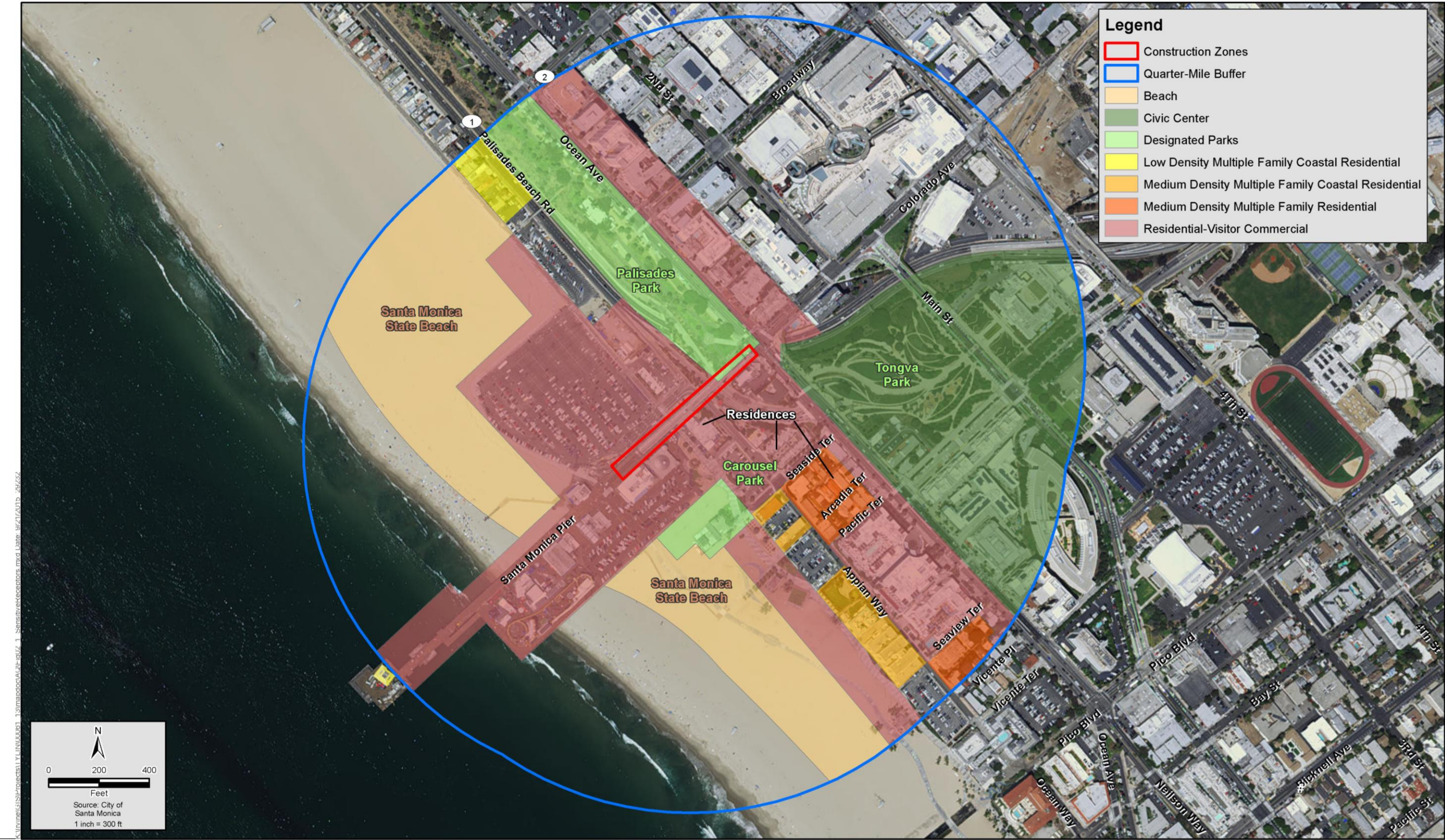


Figure 2.13-2. Sensitive Air Quality Receptor Locations



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## Mobile-Source Air Toxics/Toxic Air Contaminant Emissions

The purpose of this project is to provide a transportation connection to Santa Monica Pier that meets current seismic standards. This would be accomplished by constructing a replacement bridge. It has been determined that this project would generate minimal air quality impacts with respect to Clean Air Act criteria pollutants. Furthermore, the project has not been linked to any special MSAT concerns. The project would not result in a change in vehicle miles traveled, vehicle mix, location, or any other factor that would cause a meaningful increase in MSAT impacts compared with the No-Build Alternative. Moreover, EPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. An analysis of national trends, using EPA's MOVES2014 model, forecast a combined reduction of more than 90 percent in the annual emissions rate for priority MSATs between 2010 and 2050, even though vehicle miles were projected to increase by more than 45 percent (Federal Highway Administration and U.S. Environmental Protection Agency 2016). This will reduce both the background level of MSATs as well as the possibility of even minor MSAT emissions from this project.

### ***Incomplete or Unavailable Information for Project-Specific MSAT Health Impacts Analysis***

In FHWA's view, the information for credibly predicting project-specific health impacts due to changes in MSAT emissions associated with a proposed set of highway alternatives is either incomplete or unavailable. The outcome of such an assessment, adverse or not, would be influenced more by the uncertainty introduced into the process through assumption and speculation rather than any genuine insight into the actual health impacts directly attributable to MSAT exposure associated with a proposed action.

EPA is responsible for protecting the public from any known or anticipated effect of an air pollutant. It is the lead authority for administering the Clean Air Act and its amendments and has specific statutory obligations with respect to hazardous air pollutants and MSATs. EPA is in the process of continuously assessing human health effects, exposures, and risks posed by air pollutants. It maintains the Integrated Risk Information System (IRIS), which is "a compilation of electronic reports on specific substances found in the environment and their potential to cause human health effects" (<https://www.epa.gov/iris>). Each report contains assessments of non-cancerous and cancerous effects associated with individual compounds and quantitative estimates of the risk level from lifetime oral and inhalation exposures.

Other organizations are also active in researching and analyzing the human health effects of MSATs, including the Health Effects Institute (HEI). A number of HEI studies are summarized in Appendix D of FHWA's *Updated Interim Guidance on Mobile-Source Air Toxic Analysis in NEPA Documents*. Among the adverse health effects linked to MSAT compounds at high exposures are cancer in humans in occupational settings, cancer in animals, and irritation to the respiratory tract, including the exacerbation of asthma. Less obvious is the adverse human health effects of MSAT compounds at current environmental concentrations (HEI Special Report 16 [<https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects>]) or in the future as vehicle emissions substantially decrease.

The methodologies for forecasting health impacts include emissions modeling, dispersion modeling, exposure modeling, and a final determination of health impacts, with each step in the process building on the model predictions obtained in the previous step. All are encumbered by technical shortcomings or uncertain science, which prevent a more complete differentiation of the MSAT health impacts among a set of project alternatives. These difficulties are magnified for lifetime (i.e., 70-year) assessments, particularly because unsupportable assumptions would have to be made regarding changes in travel patterns and vehicle technology, which would affect rates of emission over that time frame because such information is unavailable.

It is particularly difficult to forecast 70-year lifetime MSAT concentrations and exposures near roadways reliably, determine the portion of time that people are actually exposed at a specific location, and establish the extent attributable to a proposed action, especially given that some of the information needed is unavailable.

Considerable uncertainties are associated with estimates of toxicity for the various MSATs because of factors such as low-dose extrapolations and translations of occupational exposure data to the general population, a concern expressed by HEI (Special Report 16 [<https://www.healtheffects.org/publication/mobile-source-air-toxics-critical-review-literature-exposure-and-health-effects>]). As a result, there is no national consensus on the air dose/response values assumed to protect the public health and welfare for MSAT compounds and, in particular, DPM. EPA states that, with respect to diesel engine exhaust, “[t]he absence of adequate data to develop a sufficiently confident dose-response relationship from the epidemiologic studies has prevented the estimation of inhalation carcinogenic risk (EPA IRIS database, Diesel Engine Exhaust, Section II.C, [https://cfpub.epa.gov/ncea/iris/iris\\_documents/documents/subst/0642.htm#quainhal](https://cfpub.epa.gov/ncea/iris/iris_documents/documents/subst/0642.htm#quainhal)).”

There is also a lack of national consensus regarding the acceptable level of risk. The current context is the process used by EPA, as provided by the Clean Air Act, to determine whether more stringent controls are required to provide an ample margin of safety and protect public health or prevent an adverse environmental effect from industrial sources, such as benzene emissions from refineries, subject to the maximum achievable control technology standards. The decision framework is a two-step process. The first step requires EPA to determine an “acceptable” level of risk due to emissions from a source, which is generally no greater than approximately 100 in 1 million. Additional factors are considered in the second step, the goal of which is a level of risk that is less than one in 1 million. The results of this statutory two-step process do not guarantee that cancer risks from exposure to air toxics would be less than one in 1 million; in some cases, the residual risk determination could result in maximum individual cancer risks that could be as high as approximately 100 in 1 million. In a June 2008 decision, the U.S. Court of Appeals for the District of Columbia Circuit upheld EPA’s approach to addressing risk in its two-step decision framework. Information is incomplete, or unavailable, to establish that large highway projects would result in levels of risk that would be greater than those that are deemed acceptable ([https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/\\$file/07-1053-1120274.pdf](https://www.cadc.uscourts.gov/internet/opinions.nsf/284E23FFE079CD59852578000050C9DA/$file/07-1053-1120274.pdf)).

Because of the limitations in the methodologies for forecasting health impacts, any predicted difference between Build Alternatives 1 and 2 (LPA) is likely to be much smaller than the uncertainty associated with predicting impacts. Consequently, the results of such assessments would not be useful to decision-makers, who would need to weigh this information against project benefits (e.g., reduced traffic congestion, lower accident rates, fewer fatalities, improved access for emergency response), items that are better suited for quantitative analysis.



## Odors

According to the SCAQMD *CEQA Air Quality Handbook*, land uses associated with odor complaints typically include agricultural uses, wastewater treatment facilities, food processing plants, chemical plants, composting areas, refineries, landfills, dairies, and fiberglass molding facilities. The proposed project would not involve any of the aforementioned odor-causing activities. No operational impacts related to substantial emissions such as odors would occur as a result of project implementation.

## Construction Conformity

Construction activities would not last for more than 5 years at one general location. Therefore, construction-related emissions do not need to be included in regional and project-level conformity analyses (40 CFR 93.123(c)(5)).

## Regional Criteria Pollutant Emissions

Construction is anticipated to begin in early 2025 and last approximately 24 months. Temporary construction emissions would result from on-site activities such as grubbing/land clearing, grading/excavating, drainage/subgrade construction, bridge construction, and paving as well as off-site activities, including trips associated with haul trucks and commuting construction workers. Pollutant emissions would vary daily, depending on the level of activity, specific operations, and prevailing weather conditions (for fugitive dust).

During construction, short-term degradation of air quality may occur from the release of particulate emissions (airborne fugitive dust) generated by excavation, grading, hauling, and other activities related to construction. Emissions from construction equipment would include CO, NO<sub>x</sub>, ROG, directly emitted particulate matter (PM<sub>10</sub> and PM<sub>2.5</sub>), and TACs (aka MSATs), such as DPM.

Site preparation and bridge construction would involve clearing, cut-and-fill work, grading, and paving the roadway surfaces. Construction-related effects on air quality from most roadway projects are typically greatest during the site preparation phases because most heavy construction equipment emissions are associated with excavation, handling, and the transport of soil to and from the site. An estimate of project construction emissions is presented below in Table 2.13-2. The greatest regional emissions would occur during the grading/excavation period, resulting in 8 pounds of ROG, 80 pounds of NO<sub>x</sub>, 65 pounds of CO, less than 1 pound of SO<sub>2</sub>, 8 pounds of PM<sub>10</sub>, and 4 pounds of PM<sub>2.5</sub> per day.

SCAQMD regional emissions thresholds are provided as the basis for the determination of CEQA impacts by the City of Santa Monica (City), as part of its responsibilities as the CEQA lead agency. Such thresholds are not the basis for NEPA impact determinations, for which the California Department of Transportation (Caltrans) is responsible as the NEPA lead agency.

An estimate of construction emissions with implementation of SCAQMD Rule 403 regarding fugitive dust control measures and Mitigation Measure AQ-1 (see Section 2.13.1.4, *Avoidance, Minimization, and/or Mitigation Measures*) is provided in Table 2.13-3. As shown, the estimate of maximum daily emissions would be 5 pounds of ROG, 11 pounds of NO<sub>x</sub>, 90 pounds of CO, less than 1 pound of SO<sub>2</sub>, 6 pounds of PM<sub>10</sub>, and 2 pounds of PM<sub>2.5</sub>. Regional construction-period impacts would be less than significant under CEQA and not adverse under NEPA.

**Table 2.13-2. Estimate of Regional Criteria Pollutant Emissions during Construction (pounds per day)**

Construction Phase	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Grubbing and Clearing (2025)	1	9	9	< 1	5	1
Grading/Excavation (2025–2026)	8	80	65	< 1	8	4
Construction/Drainage/Utilities/ Sub-Grade (2026–2027)	5	51	46	< 1	7	3
Paving (2027)	1	8	13	< 1	< 1	< 1
<b>Maximum Daily Emissions (Regional)</b>	<b>8</b>	<b>80</b>	<b>65</b>	<b>&lt; 1</b>	<b>8</b>	<b>4</b>
SCAQMD Regional Emissions Thresholds	75	100	550	150	150	55

Source: ICF 2020.

Note: SCAQMD thresholds are provided as the basis for the City's determination, as part of its responsibilities as the CEQA lead agency, of impacts under CEQA. Such thresholds are not the basis for NEPA impact determinations, for which Caltrans is responsible as the NEPA lead agency.

Assumptions provided in attachment.

ROG = reactive organic gas; NO<sub>x</sub> = nitrogen oxide; CO = carbon monoxide; SO<sub>2</sub> = sulfur dioxide; PM<sub>10</sub> = particulate matter less than 10 microns in diameter; PM<sub>2.5</sub> = particulate matter less than 2.5 microns in diameter

**Table 2.13-3. Estimate of Regional Criteria Pollutant Emissions during Construction with Control Measures (pounds per day)**

Construction Phase	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Grubbing and Clearing (2025)	1	2	13	< 1	5	1
Grading/Excavation (2025–2026)	5	11	90	< 1	6	2
Construction/Drainage/Utilities/Subgrade (2026–2027)	3	7	59	< 1	5	1
Paving (2027)	1	2	14	< 1	< 1	< 1
<b>Maximum Daily Emissions (Regional)</b>	<b>5</b>	<b>11</b>	<b>90*</b>	<b>&lt; 1</b>	<b>6</b>	<b>2</b>
SCAQMD Regional Emissions Thresholds	75	100	550	150	150	55

Source: ICF 2015 (detailed calculation assumptions in Appendix C to the September 2016 air quality study report).

\*The emissions factors for the Tier 4 construction equipment proposed in the mitigation measure result in overall reductions in criteria pollutants but a slight increase in CO, albeit well below the threshold level.

## Localized Criteria Pollutant Emissions

SCAQMD has developed localized significance thresholds (LSTs) to help public agencies analyze the project-related effects of pollutants on nearby receptors. The LSTs are based on the size or total area of the emissions source, the ambient air quality in each Source Receptor Area (SRA) where the emissions sources are located, and the distance to nearby sensitive receptor locations. The project site encompasses approximately 1.5 acres within the Northwest Coastal Los Angeles County SRA (SRA 2). Because LSTs are based on the potential area disturbed on any given day, the LST analysis for construction assumes a worst-case scenario, with a 1-acre area disturbed per day and a 82-foot distance to receptors. Table 2.13-4 shows the on-site emissions associated with project construction.

**Table 2.13-4. Estimate of Localized Criteria Pollutant Emissions during Construction with Control Measures (pounds per day)**

Construction Phase	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Grubbing and Clearing (2023)	1	1	12	< 1	2.0	0.5
Grading/Excavation (2023–2024)	4	9	84	< 1	2.4	0.8
Construction/Drainage/Utilities/Subgrade (2024)	3	6	58	< 1	2.3	0.7
Paving (2024)	1	1	13	< 1	0.1	0.1
<b>On-site Maximum Daily Emissions</b>	<b>4</b>	<b>9</b>	<b>84</b>	<b>&lt; 1</b>	<b>2.0</b>	<b>1.0</b>
SCAQMD Localized Significance Thresholds <sup>a</sup>	—	103	562	—	4	3

Source: ICF 2020.

<sup>a</sup>. A 1-acre project site and an 80-foot receptor distance were assumed for Source Receptor Area 2 (Northwest Coastal Los Angeles County). This is the smallest distance between source and receptor to be analyzed under the SCAQMD LST methodology. There are no LSTs for ROG or SO<sub>2</sub>.

SCAQMD LSTs are provided as the basis for the determination of CEQA impacts by the City, as part of its responsibilities as the CEQA lead agency. Such thresholds are not the basis for NEPA impact determinations, for which Caltrans is responsible as the NEPA lead agency. With the implementation of control measures and Mitigation Measure AQ-1, localized construction-period impacts would be less than significant under CEQA and not adverse under NEPA.

### Mobile-Source Air Toxics/Toxic Air Contaminant Emissions

With respect to construction-period impacts, the greatest potential for TAC emissions would be related to DPM emissions associated with heavy equipment operations during project construction. Construction activities associated with the project would be sporadic, transitory, and short term in nature. The assessment of cancer risk is typically based on a 9- to 70-year exposure period; however, Build Alternatives 1 and 2 (LPA) are both anticipated to have a construction duration of approximately 24 months. Because exposure to diesel exhaust would be well below the 70-year exposure period, project construction is not anticipated to result in an elevated cancer risk to exposed persons because of the short-term and transitory nature of construction activity. Construction-period impacts related to MSATs/TACs would be less than significant under CEQA and not adverse under NEPA.

### Create Objectionable Odors Affecting a Substantial Number of People

Potential sources that may emit odors during construction activities under Build Alternatives 1 and 2 (LPA) include equipment exhaust. Odors from that source would be localized and generally confined to the immediate area surrounding the project site. The build alternatives would use typical construction techniques, and the odors would be typical of most construction sites and temporary in nature. No construction activities under the build alternatives would cause an odor nuisance. Construction-period impacts related to other substantial emissions would be less than significant under CEQA and not adverse under NEPA.

### 2.13.4 Avoidance, Minimization, and/or Mitigation Measures

The proposed project would be subject to SCAQMD Rule 403, the purpose of which is to reduce the amount of particulate matter entrained in the ambient air. In addition, implementation of Mitigation Measure AQ-1 would reduce emissions of criteria pollutants and localized effects during the construction period.

**AQ-1.** To reduce particulate matter exhaust emissions, the City (or its contractors) shall ensure that all off-road diesel-powered equipment rated at 50 brake horsepower and greater used during construction shall meet EPA Tier 4 emissions standards, or better, except construction equipment for which such emissions control technology is not available.

Most construction-related impacts on air quality are short term and, therefore, do not result in long-term adverse conditions. Implementation of the following avoidance and minimization measures, some of which may also be required for other purposes, such as stormwater pollution control, would reduce any air quality impacts resulting from construction activities:

- The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (2018).
  - Section 14-9-02 specifically requires the contractor to comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion, either at the point of emission or at the right-of-way line, depending on local regulations.
- Soil binder will be spread on any unpaved roads used for construction purposes and on all project construction parking areas.
- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel, as required by California Code of Regulations Title 17, Section 93114.
- A dust control plan will be developed, documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes, as needed, to minimize construction impacts on existing communities.
- Equipment and material storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.
- Environmentally sensitive areas, or their equivalent, will be established near sensitive air receptors. Within these areas, construction activities involving extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.
- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.

- All transported loads of soils and wet materials will be covered before transport or adequate freeboard (i.e., the space from the top of the material to the top of the truck) will be provided to minimize emissions of dust (particulate matter) during transportation.
- Dust and mud deposited on paved public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.
- To the extent feasible, construction traffic will be scheduled and routed so as to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Mulch will be installed or vegetation planted as soon as practical after grading to reduce windblown particulate in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emissions; therefore, it may be necessary to use controls, such as dampened straw.

#### **2.13.4.1 Climate Change**

Neither EPA nor FHWA has issued explicit guidance or methods for conducting project-level greenhouse gas analysis. FHWA emphasizes concepts pertaining to resilience and sustainability in highway planning, development, design, operation, and maintenance. Because there have been requirements set forth in California legislation and executive orders on climate change, the issue is addressed in the CEQA chapter of this document. The CEQA analysis may be used to inform the NEPA determination for the project.

#### **2.13.5 Cumulative Impacts**

##### **2.13.5.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for air quality is the Basin.

**Existing Conditions within RSA:** SCAQMD operates and maintains a network of ambient air monitoring stations throughout the Basin. The purpose of the monitoring stations is to measure ambient concentrations of pollutants and determine whether ambient air quality meets the CAAQS and the NAAQS. The monitoring station most representative of air quality conditions at the project site is the West Los Angeles-VA Hospital monitoring station (CARB 70091), which is approximately 3.5 miles northeast of the site.

Monitoring data show pollutant concentrations and exceedances of state and federal standards at the West Los Angeles-VA Hospital monitoring station (Table 2.13-1). For O<sub>3</sub>, exceedances of the state and federal 8-hour standard were recorded twice in 2018, once in 2019, and eight times in 2020. Exceedances of the state 1-hour O<sub>3</sub> standard were recorded six times in 2020. No exceedances for the federal NO<sub>2</sub> or CO standards were recorded during the 3-year monitoring period. The West Los Angeles-VA Hospital monitoring station does not have data for PM<sub>10</sub> or PM<sub>2.5</sub> concentrations. The nearest monitoring station to the project site that collects data regarding PM<sub>10</sub> concentrations is the Los Angeles-Westchester Parkway monitoring station (CARB 70111), which is approximately 6 miles southeast of the site. In the 2018–2020 period, there were 13 exceedances of the state standard (in 2019). No exceedances of the federal PM<sub>10</sub> standard were recorded in the 3-year monitoring period. The Los Angeles-

Westchester Parkway monitoring station does not collect data regarding PM<sub>2.5</sub> concentrations; therefore, the next closest station was used to approximate existing conditions at the project site with respect to PM<sub>2.5</sub>. The Compton-700 North Bullis Road monitoring station (CARB 70112), located 18 miles southeast of the project site, recorded two exceedances of the 24-hour federal standard for PM<sub>2.5</sub> in 2018, one exceedance in 2019, and 19 exceedances in 2020.

### 2.13.5.2 Environmental Consequences

**Potential Direct and/or Indirect Impacts within RSA:** Regional and localized construction-period impacts would be less than significant under CEQA and not adverse under NEPA during construction of the build alternatives with implementation of Mitigation Measure AQ-1. Construction of the proposed project would result in less-than-significant impacts related to MSAT/TAC emissions and odors.

Impacts related to operation of the build alternatives would be less than significant.

**Current and Reasonably Foreseeable Projects within RSA:** With respect to the construction- and operations-period air quality emissions from projects in the surrounding vicinity and within the Basin, SCAQMD has developed strategies to reduce criteria pollutant emissions, as outlined in the Air Quality Management Plan (AQMP), pursuant to federal Clean Air Act mandates. As such, the projects within the Basin, including all nearby current and reasonably foreseeable projects, would comply with SCAQMD Rule 403 requirements, among other SCAQMD requirements. In addition, the projects would comply with adopted AQMP emissions control measures. Per SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, compliance with adopted AQMP emissions control measures) would also be imposed on construction projects Basin-wide.

**Cumulative Impact Potential:** Because compliance with SCAQMD strategies and rules is mandated to mitigate the cumulative air quality impacts of the proposed project and all projects and development in the Basin, the proposed project is not expected to result in a substantial contribution toward a cumulatively considerable air quality impact.

### 2.13.5.3 Avoidance, Minimization, and/or Mitigation Measures

Implementation of Mitigation Measure AQ-1 would minimize the proposed project's potential to contribute toward a cumulative impact on air quality.

## 2.14 Noise

### 2.14.1 Regulatory Setting

The National Environmental Policy Act (NEPA) of 1969 and the California Environmental Quality Act (CEQA) provide the broad basis for analyzing and abating the effects of highway traffic noise. The intent of these laws is to promote the general welfare and foster a healthy environment. The requirements for noise analysis and the consideration of noise abatement and/or mitigation, however, differ between CEQA and NEPA.

#### 2.14.1.1 California Environmental Quality Act

CEQA requires a baseline versus build analysis to assess whether a proposed project would have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project, unless those measures are not feasible. The rest of this section will focus on the NEPA 23 Code of Federal Regulations (CFR) 772 noise analysis; please see Chapter 3 of this document for further information on noise analysis under CEQA.

#### 2.14.1.2 National Environmental Policy Act and 23 CFR 772

For highway transportation projects with Federal Highway Administration (FHWA) involvement (and Caltrans, as assigned), the Federal-Aid Highway Act of 1970 and associated implementing regulations (23 CFR 772) govern the analysis and abatement of traffic noise impacts. The regulations require that potential noise impacts in areas of frequent human use be identified during planning and design of a highway project. The regulations include noise abatement criteria (NAC), which are used to determine when a noise impact would occur. The NAC differ, depending on the type of land use under analysis. For example, the NAC for residences (67 A-weighted decibels [dBA]) is lower than the NAC for commercial areas (72 dBA). Table 2.14-1 lists the noise abatement criteria for use in the NEPA/23 CFR 772 analysis.

Figure 2.14-1 lists the noise levels of common activities, allowing readers to compare the actual and predicted highway noise levels discussed in this section with common activities.

According to the Caltrans *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects* (Protocol) (2020), a noise impact occurs when the predicted future noise level with a project substantially exceeds the existing noise level (defined as an increase of 12 dBA or more) or the future noise level with a project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

If it is determined that a project will have noise impacts, then abatement measures must be considered. Noise abatement measures that are determined to be reasonable and feasible at the time of final design are incorporated into the project plans and specifications. This document discusses noise abatement measures that are likely to be incorporated into the project.



**Table 2.14-1. Noise Abatement Criteria**

<b>Activity Category</b>	<b>NAC, Hourly A-Weighted Noise Level, <math>L_{eq}(h)</math></b>	<b>Description of Activity Category</b>
A	57 (Exterior)	Lands where serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B <sup>a</sup>	67 (Exterior)	Residential.
C <sup>a</sup>	67 (Exterior)	Active sport areas, amphitheaters, auditoriums, campgrounds, cemeteries, day care centers, hospitals, libraries, medical facilities, parks, picnic areas, places of worship, playgrounds, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, recreation areas, Section 4(f) sites, schools, television studios, trails, and trail crossings.
D	52 (Interior)	Auditoriums, day care centers, hospitals, libraries, medical facilities, places of worship, public meeting rooms, public or nonprofit institutional structures, radio studios, recording studios, schools, and television studios.
E	72 (Exterior)	Hotels, motels, offices, restaurants/bars, and other developed lands, properties, or activities not included in A–D or F.
F	No NAC—reporting only	Agriculture, airports, bus yards, emergency services, rail yards, shipyards, utilities (water resources, water treatment, electrical, etc.), warehouses, and industrial, logging, maintenance, manufacturing, mining, and retail facilities.
G	No NAC—reporting only	Undeveloped lands that are not permitted.

<sup>a</sup>. Includes undeveloped lands permitted for this activity category.

$L_{eq}(h)$  = hourly equivalent sound level

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Jet Fly-over at 300m (1000 ft)	110	Rock Band
Gas Lawn Mower at 1 m (3 ft)	100	
Diesel Truck at 15 m (50 ft), at 80 km (50 mph)	90	Food Blender at 1 m (3 ft)
Noisy Urban Area, Daytime	80	Garbage Disposal at 1 m (3 ft)
Gas Lawn Mower, 30 m (100 ft)	70	Vacuum Cleaner at 3 m (10 ft)
Commercial Area		Normal Speech at 1 m (3 ft)
Heavy Traffic at 90 m (300 ft)	60	Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (Background)
Quiet Suburban Nighttime		Library
Quiet Rural Nighttime	30	Bedroom at Night, Concert Hall (Background)
	20	Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Figure 2.14-1. Noise Levels of Common Activities

The Protocol sets forth the criteria for determining when an abatement measure is reasonable and feasible. Feasibility of noise abatement is basically an engineering concern. A minimum 7 dBA reduction in the future noise level must be achieved for an abatement measure to be considered feasible. Other considerations include topography, access requirements, other noise sources, and safety considerations. The reasonableness determination is basically a cost-benefit analysis. Factors used in determining whether a proposed noise abatement measure is reasonable include acceptance by the residents as well as the cost per benefited residence.

### 2.14.1.3 Local Ordinances

Section 4.12.060 of the City of Santa Monica's (City's) Municipal Code (Chapter 4.12, Noise) also contains noise standards that are used to limit noises from sources within the City's control. The City's exterior noise standards apply to all property within a designated noise zone during the times indicated, as reproduced in Table 2.14-2.

**Table 2.14-2. Interior and Exterior Noise Standards**

Noise Zone	Time Interval	Allowable $L_{eq}$	
		15-Minute Continuous Measurement Period	5-Minute Continuous Measurement Period
I - Residential	<b>Monday through Friday</b>		
	10 p.m. to 7 a.m.	50 dBA	55 dBA
	7 a.m. to 10 p.m.	60 dBA	65 dBA
	<b>Saturday and Sunday</b>		
	10 p.m. to 8 a.m.	50 dBA	55 dBA
	8 a.m. to 10 p.m.	60 dBA	65 dBA
II - Commercial	<b>All days of the week</b>		
	10 p.m. to 7 a.m.	60 dBA	65 dBA
	7 a.m. to 10 p.m.	65 dBA	70 dBA
III - Manufacturing/ Industrial	Anytime	70 dBA	75 dBA

Source: Section 4.12.060 of the City of Santa Monica Municipal Code (Chapter 4.12, Noise)

Notes:

<sup>1</sup> For each Noise Zone, the allowable exterior equivalent noise level shall be reduced by five dBA for impulsive or simple tone noise, or for noises consisting of speech or music. If the ambient noise level exceeds the allowable exterior noise level standard, the ambient noise level shall be the standard.

<sup>2</sup> Except as provided for in this Chapter, no person shall at any location within the City create any noise or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes:

- The equivalent noise level to exceed the noise standards established in subsection (a) of this Section for the noise zone where the measurement is taken; or
- A maximum instantaneous A-weighted, slow sound pressure level to exceed the decibel limits established in subsection (a) of this Section for the noise zone where the measurement is taken plus twenty dBA for any period of time.

<sup>3</sup> If any portion of a parcel is located within one hundred feet of a noise zone with higher noise standards as compared to the noise standards for the noise zone in which the parcel is located, then the maximum allowable exterior equivalent noise level for the entire parcel shall be the average of the noise standards of the two noise zones. However, any noise level measurement must be taken at least twenty-five feet from the parcel line of the source of the noise.

<sup>4</sup> Construction activity shall be subject to the noise standards set forth in Section 4.12.110.

<sup>5</sup> The noise standards established in Section 6.116.030 shall apply on the Third Street Promenade and the Transit Mall.

Noise from construction activities is regulated by the City's Municipal Code. Section 4.12.110 restricts construction noise by placing limits on the hours of construction operations and the noise levels produced during certain periods of time. Construction is not allowed within the city between the hours of 6:00 p.m. and 8:00 a.m. Monday through Friday, between 5:00 p.m. and 9:00 a.m. on Saturday, or at any time on Sunday, except for emergency work or by variance. During the permitted hours, construction noise is limited to the levels specified in Table 2.14-2 plus 20 dBA or a maximum instantaneous noise levels ( $L_{max}$ ) to exceed the limits specified in Table 2.14-2 plus 40 dBA. Furthermore, any construction noise that exceeds the levels specified in Table 2.14-2 must occur between the hours of 10 a.m. and 3 p.m., Monday through Friday.

## 2.14.2 Affected Environment

The Santa Monica Pier Bridge extends west from the intersection of Ocean Avenue and Colorado Avenue to Santa Monica Pier in the city of Santa Monica. Land uses within the project area consist of a mix of multi-family residential and commercial uses (including

restaurants/bars, visitor-serving uses, and retail outlets), the Santa Monica Urban Runoff Recycling Facility, surface parking lots, Palisades Park, Santa Monica State Beach, and Santa Monica Pier.

The project site is surrounded by residential properties, businesses, roads, public walkways, a park, Santa Monica State Beach, and structures on all sides as well as underneath the bridge. Land use designations east of the project site consist of medium-density housing as well as parks and open space. Land use designations west of the project site consist of parks and open space. Land use designations north of the project site include residential and commercial uses as well as parks and open space.

### **2.14.3 Environmental Consequences**

Under 23 CFR 772.7, projects are categorized as Type I, Type II, or Type III projects. FHWA defines a Type I project as a proposed federal or federal-aid highway project for the construction of a highway at a new location or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment or increases the number of through traffic lanes. A Type II project is defined as a federal or federal-aid highway project for noise abatement on an existing highway, while a Type III project is a federal or federal-aid highway project that does not meet the classification of a Type I or Type II project. Type III projects do not require a noise analysis.

The two build alternatives under consideration are not categorized as Type I or Type II projects by FHWA because the alternatives would not change the vertical or horizontal alignment relative to the noise-sensitive receptors or result in an increase in capacity. Therefore, Build Alternatives 1 and 2 (LPA) are considered Type III projects and do not require a noise analysis under NEPA and 23 CFR 772.

#### **2.14.3.1 Construction**

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Noise associated with construction is controlled by the City's Municipal Code, Section 4.12.110. This section restricts construction noise by placing limits on the hours of construction operations and the noise levels produced during certain periods of time. Construction is not allowed within the city between the hours of 6:00 p.m. and 8:00 a.m. Monday through Friday, between 5:00 p.m. and 9:00 a.m. on Saturday, or at any time on Sunday, except for emergency work or by variance. During the permitted hours, construction noise is limited to the levels specified in Table 2.14-2 plus 20 dBA or a maximum instantaneous noise levels ( $L_{max}$ ) to exceed the limits specified in Table 2.14-2 plus 40 dBA. Furthermore, any construction noise that exceeds the levels specified in Table 2.14-2 must occur between the hours of 10 a.m. and 3 p.m., Monday through Friday.

Construction equipment is expected to generate maximum instantaneous ( $L_{max}$ ) noise levels ranging from 71 to 79 dBA at a distance of 100 feet. Average ( $L_{eq}$ ) construction noise levels would range from 67 to 75 dBA at a distance of 100 feet. The nearest residences are located along Appian Way, approximately 330 feet from the nearest project construction. Construction equipment used as part of the project would generate  $L_{max}$  noise levels up to 79 dBA at 100 feet and would generate  $L_{eq}$  noise levels up to 75 dBA at 100 feet. Noise levels of this magnitude would attenuate to approximately 69 dBA  $L_{max}$  and 65 dBA  $L_{eq}$  at the closest residence.

Construction noise standards in the City's Municipal Code specify that construction is exempt between 10 a.m. and 3 p.m., Monday through Friday and cannot exceed 20 dBA  $L_{eq}$  of 40 dBA  $L_{max}$  over the threshold specified in Table 2.14-2 outside of the hours of 10 a.m. to 3 p.m. Noise levels from construction would not result in an increase beyond the thresholds outlined in the City's Municipal Code.

The nearest commercial land uses to project construction are along Ocean Front Walk and near the intersection of Colorado Avenue and Moomat Ahiko Way. Commercial uses could be located within 25 feet of construction activities. Noise levels could be expected to be as high as 83 to 91 dBA  $L_{max}$  and 79 to 87 dBA  $L_{eq}$  at a distance of 25 feet. As specified in Section 4.12.110 of the Municipal Code, construction activities would be limited to the permitted hours of 10 a.m. to 3 p.m., Monday through Friday. If construction would occur outside of this timeframe, construction would not result in an increase beyond the thresholds outlined in the City's Municipal Code.

### **2.14.3.2 Operation**

Build Alternatives 1 and 2 (LPA) would not change the vertical or horizontal alignment of affected roadways relative to the noise-sensitive receptors and would not result in an increase in capacity. For these reasons, noise levels associated with vehicles are not predicted to increase beyond those currently experienced. Therefore, no noise impacts associated with vehicles are predicted to occur at any of the representative land uses in the project area. Accordingly, noise abatement will not be considered for this project.

### **2.14.4 Avoidance, Minimization, and/or Mitigation Measures**

No traffic noise impacts are predicted to occur at any of the representative land uses in the project area. As such, no adverse operational impacts are anticipated as part of the project. Additionally, project construction would not result in adverse impacts, as the project would comply with the construction noise regulations outlined in the City's Municipal Code.

### **2.14.5 Cumulative Impacts**

#### **2.14.5.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for cumulative construction noise impacts consists of the area in the vicinity of the project site that would experience noticeable increases in noise levels due to project-related construction activities. Depending on terrain, obstacles, and atmospheric conditions, the area of impact could extend from several hundred to 1,000 feet or more. As discussed above, the project is not considered a Type 1 project and would not result in a change to traffic that would result in an operational impact.

#### **2.14.5.2 Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** Temporary and intermittent construction noise from the proposed project would generally be limited to daytime hours. The City may consider construction activities outside normal hours when in the public interest or for safety reasons. This would be carried out through the City's after-hours construction permit

process. Furthermore, the noisiest construction activities would generally be conducted during normal daytime hours to limit the potential for significant nighttime noise impacts on surrounding sensitive receptors. The proposed project would not have any noise-generating operational elements.

**Cumulative Impact Potential:** The potential exists for a cumulative impact if construction activities for both the proposed project and projects adjacent to or in the immediate vicinity of the proposed project would occur concurrently—particularly, if construction were to occur outside the City’s normal construction hours.

#### **2.14.5.3 Avoidance, Minimization, and/or Mitigation Measures**

The proposed project would not result in significant noise impacts, although the potential exists for cumulative impacts if the proposed project is constructed at the same time as projects adjacent to or in the immediate vicinity of the proposed project. Because construction of the proposed project would be scheduled during normal daytime hours and would comply with the City’s Municipal Code, noise impacts would not be cumulatively considerable.

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## 2.15 Energy

This section describes existing conditions and the applicable regulatory requirements related to energy and energy service systems as well as the proposed project's potential for energy impacts on people or the surrounding environment.

Desktop research was conducted in August 2020 to confirm that the information presented below has not changed since first circulation of this environmental impact report/environmental assessment (EIR/EA).

### 2.15.1 Regulatory Setting

National Environmental Policy Act (NEPA) (42 United States Code Part 4332) requires the identification of all potentially significant impacts on the environment, including energy impacts. The California Environmental Quality Act (CEQA) Guidelines, state that EIRs are required to include a discussion of the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing any inefficient, wasteful, or unnecessary consumption of energy.

#### 2.15.1.1 State

In 2016 the California Energy Commission (CEC) updated the Building Energy Efficiency Standards (Title 24). This update focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant improvements to nonresidential standards include alignment with the American Society of Heating, Refrigerating, and Air-Conditioning Engineers 90.1 2013 standards and efficiency for elevators and direct digital controls (California Energy Commission 2016).

### 2.15.2 Affected Environment

Unless otherwise noted, the information in this section is based on direct energy consumption from mobile sources associated with the construction of the proposed project and the South Coast Air Quality Management District's Roadway Construction Emissions Model, which provides estimated fuel consumption rates for the construction years. This information is contained in the September 2016 air quality study report (Appendix L of this EIR/EA) as well as the 2020 addendum to the air quality study report for the Santa Monica Pier Bridge Replacement Project. Construction-period greenhouse gas emissions were converted to equivalent gallons of diesel fuel and million British thermal units (MMBTUs); the calculations are included in Appendix L to this EIR/EA as well as the addendum to the air quality study report for the Santa Monica Pier Bridge Replacement Project. The worst-case daily construction activities were modeled. The maximum daily energy consumptions are predicted values for the worst-case scenario and do not represent the daily energy consumption that would occur for every day of construction. Energy-related impacts resulting from the two build alternatives would be less than those identified below.

No quantification of operational energy requirements was undertaken because there would be only negligible differences between existing conditions and each of the build alternatives with respect to energy consumption in the project area. In addition, no land use changes or parking additions would occur as a result of project implementation.

Energy consumed in the project vicinity at present includes electricity for shops, residences, and outdoor lighting as well as the transportation fuels used by visitors and employees to get to and from the project area.

### **2.15.3 Environmental Consequences**

#### **2.15.3.1 No-Build Alternative**

The No-Build Alternative would not result in replacement of the Santa Monica Pier Bridge (Pier Bridge). Therefore, construction activities are not expected to take place; the Pier Bridge would remain open to pedestrian and vehicular traffic. No impacts on energy resources would be expected.

#### **2.15.3.2 Build Alternatives 1 and 2 (LPA)**

Two build alternatives are under consideration, in addition to the No-Build Alternative. Each of the proposed build alternatives would satisfy the project's purpose and need, to varying degrees. Both build alternatives would correct the structural deficiencies that currently exist and ensure adequate long-term public safety.

Build Alternatives 1 and 2 (LPA) would provide an in-kind replacement bridge, which would maintain the current access paths from Ocean Avenue to the pier—namely, one path for vehicles and bicycles (20 feet, 0 inches wide) and a second path (sidewalk) that would be used as an Americans with Disability Act– (ADA-) compliant access route (15 feet, 0 inches wide). The bridge would continue to descend at an approximate slope of 10 percent. Existing routes would remain available for ADA-compliant access. The replacement bridge would be approximately 448 feet long and approximately 38 feet wide, 4 feet wider than the existing bridge. The downward slope of the replacement bridge would be approximately 10 percent, the same as the existing bridge. Two variations for the bridge configuration are being considered, with the pedestrian path on opposite sides of the bridge.

Under the No-Build Alternative, replacement of the seismically deficient Santa Monica Pier Bridge would not occur. Use of the existing bridge structure by pedestrians, bicyclists, and motorists would continue as it does today. The No-Build Alternative also serves as a baseline against which to measure the performance and potential environmental impacts of the build alternatives.

Under each of the build alternatives, energy would be required during the construction period for operation of construction equipment and construction worker vehicle trips (i.e., commuting or hauling). As shown in the 2020 addendum to the air quality study report for the Santa Monica Pier Bridge Replacement Project and Technical Report E to this EIR/EA, as well as Table 2.15-1, under each of the build alternatives, energy would be required during the construction period for the operation of construction equipment and construction workers' vehicles (i.e., for commuting or hauling).

**Table 2.15-1. Project Energy Requirements during the Construction Period**

	<b>Diesel Fuel Use (gallons)</b>	<b>MMBTU</b>
Overall Construction Energy Use	249,900	34,700

All figures have been rounded to the nearest 100.

Source: CalEEMod modeling and conversion calculations by ICF (see Appendix L of this EIR/EA).

Overall, although California's population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.6 billion gallons in 2017 to between 12.1 billion and 12.6 billion gallons in 2030, a 19 to 22 percent reduction (California Energy Commission 2018). Although fuel would be consumed by construction vehicles and equipment, the fuel consumption would be temporary in nature and represent only a negligible increase in regional demand, an insignificant amount relative to the more than 12.1 to 15.6 billion gallons of on-road fuels used in the state (California Energy Commission 2018). Given the extensive network of fueling stations throughout the project vicinity and the short-term (2-year) construction period, no new or expanded sources of energy or new infrastructure would be required to meet the energy demand associated with project construction.

Following the completion of construction activities, there would be negligible changes in energy consumption because neither of the build alternatives would result in changes in land uses or parking supply that would allow additional visitors to be accommodated.

Energy-related impacts occurring as a result of project implementation would be less than significant under CEQA and not adverse under NEPA.

#### **2.15.4 Avoidance, Minimization, and/or Mitigation Measures**

No avoidance, minimization, or mitigation measures are required.

#### **2.15.5 Cumulative Impacts**

##### **2.15.5.1 Affected Environment**

**Resource Study Area:** The resource study area (RSA) for energy includes the service areas of electricity and natural gas providers within the boundaries of the city of Santa Monica. For transportation fuels, the geographic context is statewide. Electricity throughout the city of Santa Monica is provided by Southern California Edison (SCE). Natural gas throughout the city is provided by the Southern California Gas Company (SoCalGas).

##### **2.15.5.2 Environmental Consequences**

#### **Existing Conditions within RSA**

##### ***Electricity***

Electricity usage in California varies substantially by the types of uses in a building, the types of construction materials used in a building, and the efficiency of the electricity-consuming devices within a building. Because of the state's conservation programs and building standards regarding energy efficiency, California's use of electricity per capita has remained stable for

more than 30 years, while the national average has steadily increased (California Energy Commission 2015). Electrical services in Santa Monica is provided by Clean Power Alliance (CPA), a locally operated electricity provider for communities across Los Angeles and Ventura Counties. CPA procures the electricity from renewable energy sources, and SCE delivers it to Santa Monica residential and commercial customers.

CPA gets its electricity from private suppliers that have gone through a qualification and selection process, with a goal of incorporating locally generated power whenever possible. These suppliers get their electricity from a variety of generation sources such as wind or solar. The majority of power will be generated from California-based sources, with some suppliers located within Ventura and Los Angeles counties. The exact proportion of each varies, based on demand and availability.

With the switch in energy providers, electricity customers in the city are automatically defaulted to receiving electricity from 100 percent renewable energy sources. Alternatively, customers can opt to have their electric power consist of 50 percent renewable content, or they can opt out of the CPA. According to the city's Office of Sustainability and the Environment, in 2019, 92 percent of residents and businesses have opted to receive clean power from the CPA.

For customers opting out of the CPA, SCE is their electricity service provider. SCE provides power to approximately 14 million individuals within an area of 50,000 square miles in central and Southern California. SCE is the largest subsidiary of Edison International, with a system of approximately 53,000 line miles of overhead lines, 38,000 line miles of underground lines, and approximately 800 distribution substations.

### **Natural Gas**

The city of Santa Monica, including the project site, is served by SoCalGas. SoCalGas serves 21.6 million customers in a 20,000-square-mile service area that includes more than 500 communities (Southern California Gas Company 2018). In 2016 (the most recent year for which data are available), SoCalGas delivered 5,123 million therms, with the majority going to residential uses.

### **Petroleum**

According to the California Energy Commission, transportation accounts for the majority of California's total energy consumption (California Energy Commission 2018). There are more than 35 million registered vehicles in California, and those vehicles consume an estimated 18 billion gallons of fuel each year (California Energy Commission 2017; California Department of Motor Vehicles 2018). Gasoline and other vehicle fuels are commercially provided commodities and, therefore, would be available to the proposed project through commercial outlets. Petroleum currently accounts for approximately 92 percent of California's transportation energy consumption (California Energy Commission 2017). However, technological advances, market trends, consumer behavior, and government policies could result in significant changes in fuel consumption by type and in total.

**Potential Direct and/or Indirect Impacts within RSA:** Regional and localized construction-period impacts would be less than significant under CEQA and not adverse under NEPA during construction of either build alternative. Construction of the proposed project would result in less-than-significant impacts related to energy.

**Current and Reasonably Foreseeable Projects within RSA:** The cumulative projects within the areas served by the energy providers could cumulatively increase the use of energy resources. Projects that include development of large buildings or other structures that would have the potential to consume energy in an inefficient manner would have the potential to contribute to a cumulative impact. Projects that would include mostly construction, such as transportation infrastructure projects, could also contribute to a cumulative impact; however, the impact of such projects would be limited because they would typically not involve substantial ongoing energy use. Other development projects within the region would result in incremental increases in long-term energy consumption, similar to the proposed project, through the introduction of new residents to the region. Each of these projects, however, would be required to comply with local and state regulations for reducing energy consumption and increasing energy efficiency during operation. Similar to the proposed project, the cumulative projects would be subject to CALGreen, which provides energy efficiency standards for commercial and residential buildings. CALGreen would implement increasingly stringent energy efficiency standards that would require the proposed project and the cumulative projects to minimize the wasteful and inefficient use of energy. In addition, cumulative projects would be required to meet or exceed the Title 24 building standards, further reducing the inefficient use of energy. Future development would also be required to meet even more stringent requirements, including the objectives set in the Assembly Bill 32 Scoping Plan (California Air Resources Board 2017), which would seek to make all newly constructed residential homes “zero net energy” (ZNE) consumers by 2020 and all new commercial buildings ZNE consumers by 2030. Furthermore, various federal and state regulations, including the Low-Carbon Fuel Standard, Pavley Clean Car Standards, and Low-Emission Vehicle Program, would serve to reduce the transportation fuel demand of cumulative projects.

In summary, with adherence to the increasingly stringent building and vehicle efficiency standards, as well as implementation of the proposed project’s design features to reduce energy consumption, the proposed project would not contribute to a cumulative impact related to the wasteful or inefficient use of energy. As such, the proposed project would not result in a cumulatively considerable contribution to a potential cumulative impact.

**Cumulative Impact Potential:** Because compliance with stringent building and vehicle efficiency standards is mandated to mitigate the cumulative energy impacts of the proposed project and all other projects and development in the service areas, the proposed project is not expected to result in a substantial contribution toward a cumulatively considerable air quality impact.

### **2.15.5.3 Avoidance, Minimization, and/or Mitigation Measures**

Impacts related to energy would be less than significant; therefore, no avoidance, minimization, or mitigation measures are required at this time.

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## BIOLOGICAL ENVIRONMENT

On March 21, 2016, the California Department of Transportation (Caltrans) approved the Natural Environment Study – Minimal Impacts (NESMI) for the proposed project. The NESMI was updated in March 2020 with a technical addendum following revisions to project alternatives and the addition of other project alternatives for evaluation. The NESMI describes the biological environment and how the project alternatives would affect that environment. The NESMI also summarizes potential effects on biological resources within the Biological Study Area (BSA). The BSA for the proposed project is the project area (i.e., the maximum work-area footprint of the proposed build alternatives), including permanent and temporary impact areas, and a 500-foot buffer. The NESMI was used to synthesize the information on biological resources discussed below.

The BSA is partially within and adjacent to Santa Monica State Beach at the Santa Monica Pier entrance, adjacent to the Pacific Ocean. The BSA consists primarily of developed and urbanized areas that are dominated by paved roads, bridges, parking lots, and landscaped areas. A public beach on the western edge of the BSA is heavily used for recreation and contains sandy beach habitat. The main streets, Santa Monica Pier Bridge (Pier Bridge), and sandy beach habitat all experience high volumes of foot traffic from beach visitors, making this an extensively human-dominated landscape. Vegetation within the BSA consists of nonnative, ornamental vegetation in the maintained landscaped areas along the roadways, on residential properties, and in public access areas.

### 2.16 Natural Communities and Migratory Corridors

This section of the document discusses natural communities of concern, including habitats and vegetative communities, as well as migratory corridors. Migratory corridors are areas of habitat used by fish and wildlife for seasonal or daily migration. The focus of this section is on biological communities, not individual plant and animal species; individual special-status species are discussed in Sections 2.18 through 2.19, below. Habitat areas that have been designated as critical habitat under the federal Endangered Species Act (FESA) are discussed below in Section 2.20, *Threatened and Endangered Species and Designated Critical Habitat*. Essential fish habitat (EFH), as designated under the Magnuson-Stevens Act, is discussed below in Section 2.21, *Essential Fish Habitat*. Jurisdictional aquatic resources are discussed below in Section 2.17, *Wetlands and Other Waters*.

#### 2.16.1 Regulatory Setting

Natural communities of special concern are tracked by the California Department of Fish and Wildlife (CDFW) in the California Natural Diversity Database (CNDDB) (CDFW 2020a). Rankings are evaluated by the Vegetation Classification and Mapping Program (VegCAMP) and the California Native Plant Society (CNPS) Vegetation Program using NatureServe's Heritage Methodology, which assigns global and state rarity ranks. Natural communities with ranks of S1–S3 are considered sensitive natural communities and addressed in the California Environmental Quality Act (CEQA) environmental review processes (CDFW 2020b). Local or regional plans, regulations, and/or ordinances that call for consideration of impacts on natural



communities must also be addressed if such natural communities occur within the project area; however, as discussed below, there are no natural communities within the project area that would require such considerations for this project.

Natural communities can support species listed as threatened or endangered under the California Endangered Species Act (CESA) and FESA. Such species and habitat areas that have been designated as critical habitat under the FESA are discussed below in Section 2.20, *Threatened and Endangered Species and Designated Critical Habitat*. If natural communities within a project area include riparian and/or wetland communities, compliance with state and federal wetland and riparian policies and codes may be necessary. Jurisdictional aquatic resources are discussed in Section 2.17, *Wetlands and Other Waters*.

## 2.16.2 Affected Environment

### 2.16.2.1 Study Methods

Prior to site evaluations, the CNDDDB (CDFW 2016, 2020a) was queried for information regarding natural communities of special concern in California that could occur in the vicinity of the BSA (see the NESMI included in Appendix M of this environmental impact report/environmental assessment [EIR/EA] for the 2016 summary report and the 2020 technical addendum). Specifically, database searches were conducted using the U.S. Geological Survey (USGS) 7.5-minute quadrangle map for the BSA (Beverly Hills) and the adjacent quadrangles (Topanga, Canoga Park, Van Nuys, Burbank, Hollywood, Inglewood, and Venice). The natural communities of special concern reviewed for the proposed project are provided below in Table 2.16-1.

**Table 2.16-1. Vegetation Communities of Special Concern Known to Occur within the Region and Evaluated for Presence within the BSA**

<b>Vegetation Community</b>	<b>Presence in BSA</b>
California Walnut Woodland	Not Present
Riversidean Alluvial Fan Sage Scrub	Not Present
Southern Cottonwood Willow Riparian Forest	Not Present
Southern Dune Scrub	Not Present
Southern Coast Live Oak Riparian Forest	Not Present
Southern Coastal Salt Marsh	Not Present
Southern Sycamore Alder Riparian Woodland	Not Present

Specific information for the BSA was obtained in part through field evaluations, which relied on aerial imagery from Google Earth (Google Earth 2015). Habitat evaluations of natural communities of special concern and migratory corridors were conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for Build Alternatives 1 and 2 (LPA) was thoroughly walked and surveyed for all potential habitats.

### **2.16.2.2 Results – Natural Communities and Migratory Corridors within the BSA**

No sensitive natural communities are present within the BSA (Table 2.16-1). The only natural community present within the BSA is sandy beach habitat (Figure 1-3), which is highly disturbed by human use and not considered a sensitive community. The BSA does not support wildlife or habitat connectivity because of its urban and highly developed environment, its high level of human use, and the absence of natural habitat connectivity features. There are no migratory corridors present within the BSA.

### **2.16.3 Environmental Consequences**

Build Alternatives 1 and 2 (LPA) would build a replacement bridge within the same alignment as the existing Pier Bridge. Because of the developed nature of the environment, no natural communities of special concern or migratory corridors exist in the BSA or surrounding areas. In addition, under the proposed build alternatives, all improvements would occur within areas that are already developed. Therefore, no natural communities of special concern or migratory corridors would be affected under Build Alternatives 1 and 2 (LPA).

### **2.16.4 Avoidance, Minimization, and/or Mitigation Measures**

Under the National Environmental Policy Act (NEPA) and CEQA, no impacts on natural communities of special concern or migratory corridors would occur with implementation of Build Alternatives 1 or 2 (LPA) because none are present within the BSA. Therefore, mitigation measures for natural communities of concern and migratory corridors are not required. All improvements would occur within areas that are already developed. However, measure BIO-1 would be implemented to limit the extent of the construction impact on sandy beach habitat adjacent to the project area.

**BIO-1.** All construction-related work, including staging, storage, and access, shall be limited, to the greatest extent feasible; shall occur within the project limits; and shall not encroach upon the sandy beach habitat adjacent to the project area (see Figure 1-3).

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## **2.17 Wetlands and Other Waters**

This section of the document discusses federal and state jurisdictional aquatic resources, including wetlands and other waters.

### **2.17.1 Regulatory Setting**

Wetlands and other waters are protected under a number of laws and regulations at the federal, state, and local level. Laws relevant to this project are described below.

#### **2.17.1.1 Federal Regulations**

##### **Clean Water Act**

The federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the United States (U.S.), including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas, and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

##### **Section 404**

Section 404 of the CWA establishes a regulatory program that provides that the discharge of dredged or fill material cannot be permitted if a practicable alternative exists that would be less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE), with oversight by the U.S. Environmental Protection Agency (EPA). USACE issues two types of Section 404 permits: General and Individual permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects on waters of the U.S. Ordinarily, projects that do not meet the criteria for a Nationwide permit may be permitted under one of USACE's Individual permits. There are two types of Individual permits: Standard permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with EPA's Section 404(b)(1) Guidelines (40 Code of Federal Regulations Part 230) and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines, which were developed by EPA in conjunction with USACE, allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative that would have less adverse effects. The guidelines state that USACE may not issue a permit if there is a least environmentally damaging practicable alternative to the proposed discharge that would have lesser effects on waters of the U.S. and no other significant adverse environmental consequences.

**Section 401**

Section 401 of the CWA requires an applicant for a federal license or permit that would allow activities that would result in a discharge to waters of the U.S. to obtain state certification to ensure that the discharge would comply with other provisions of the CWA. In California, the Regional Water Quality Control Boards (RWQCBs) administer the certification program, as established under California's Porter-Cologne Act. Regulation of waters and wetlands under Section 401 and the Porter-Cologne Act are discussed further in the *State Regulations* section, below.

**Rivers and Harbors Act**

The Rivers and Harbors Act requires permits for all structures (e.g., riprap) and activities (e.g., dredging) in navigable waters of the U.S. *Navigable waters* are defined as waters that are subject to the ebb and flow of the tide (i.e., hydrologically connected to an ocean's tidal fluxes) and susceptible to use in their natural condition or through reasonable improvements associated with the transport of goods for interstate or foreign commerce. The USACE grants or denies permits according to the effects on navigation.

**Executive Order 11990 – Protection of Wetlands**

The executive order (EO) for the protection of wetlands (EO 11990) regulates activities of federal agencies pertaining to wetlands. Essentially, this executive order states that a federal agency, such as the Federal Highway Administration (FHWA) and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction in wetlands unless the head of the agency finds that 1) there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm. A "wetlands only" practicable finding must be made.

**Executive Order 11988 – Floodplain Management**

This order directs all federal agencies to avoid long- and short-term adverse impacts associated with the modification of floodplains and avoid direct or indirect support of floodplain development where there is a practicable alternative. Agencies are also directed to restore and preserve the natural and beneficial values served by floodplains.

**Coastal Zone Management Act**

The Coastal Zone Management Act (CZMA) of 1972 is the primary federal law for preserving and protecting coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan can review federal permits and activities to determine if they are consistent with the state's management plan. California has developed a Coastal Zone Management Plan and enacted its own law, the California Coastal Act of 1976, to protect the coastline; refer to the *State and Local Regulations* section below for a discussion of the California Coastal Act.

### **2.17.1.2 State and Local Regulations**

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the RWQCBs, and CDFW. In certain circumstances, the California Coastal Commission may also be involved in coastal resources. RWQCB jurisdiction under the CWA Section 401 is discussed above in the *Federal Regulations* section.

#### **Porter-Cologne Act**

As described above in the *Federal Regulations* section, the RWQCBs were established under the Porter-Cologne Act to oversee and protect the quality of waters of the U.S. Discharges under California's Porter-Cologne Act, which are permitted by waste discharge requirement programs, may be required, even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs issue water quality certification, under the National Pollutant Discharge Elimination System permitting program, for activities that may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request (see Section 2.9, *Water Quality and Stormwater Runoff*, for more details). The RWQCBs typically follow the USACE CWA Section 404 definition of a wetland, though isolated features (i.e., features without a hydrologic connection to waters of the U.S.) may also be regulated under the Porter-Cologne Act. The SWRCB has also recently adopted a two-parameter definition for wetlands, per the State Wetland Definition and Procedures for Discharge of Dredged or Fill Material to Waters of the State, which includes areas that meet the hydric soil and hydrology parameters but lack a pre-dominance of hydrophytic vegetation, to address issues associated with areas such as dry lake beds.

#### **California Fish and Game Code Section 1600, et seq. (Streambed Alteration)**

Section 1600, et seq., of the California Fish and Game Code requires any agency that proposes a project that would substantially divert or obstruct the natural flow, or substantially change the bed or bank, of a river, stream, or lake to notify CDFW before beginning construction (i.e., submit a Notification of Lake or Streambed Alteration). If CDFW determines that the project could substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement would be required. CDFW jurisdictional limits are usually defined by the top of the stream or lake bank or the outer edge of riparian vegetation, whichever is wider. Wetlands that are under jurisdiction of USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW, depending on whether they meet the three-parameter USACE definition of a wetland in addition to CDFW's top-of-bank and riparian vegetation definitions.

#### **California Wild and Scenic Rivers Act**

This act preserves certain designated rivers in their free-flowing state that possess extraordinary scenic, recreational, fishery, or wildlife values. The California Natural Resources Agency is responsible for coordinating activities of state agencies that may affect the rivers in the system.

## California Coastal Act

Policies established by the California Coastal Act are similar to those for the CZMA, described in the *Federal Regulations*, above, including protection and expansion of public access and recreation; protection, enhancement, and restoration of environmentally sensitive areas; protection of agricultural lands; protection of scenic beauty; and protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act. Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own Local Coastal Plans (LCPs). LCPs determine short- and long-term use of coastal resources in their jurisdiction, consistent with the goals of the California Coastal Act. A federal consistency determination may be needed as well. The City of Santa Monica (City) is working to prepare its own LCP, but at the time of writing this EIR/EA document, the City does not have an approved LCP; therefore, coastal management and oversight in the City's Coastal Zone is regulated by the California Coastal Commission. Within the Coastal Zone, California Code of Regulations (CCR) Title 14 establishes a "one parameter definition" for wetlands that requires evidence of only a single parameter to establish wetland conditions (14 CCR Section 13577).

### 2.17.2 Affected Environment

#### 2.17.2.1 Study Methods

Aquatic resources under the jurisdiction of the RWQCB, USACE, CDFW, and the California Coastal Commission were evaluated within the BSA. Prior to site evaluations, the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2020) and the National Wetlands Inventory Mapper (USFWS 2020a) were queried to determine the presence of potential wetlands, waters of the U.S., and waters of the state. In addition, the Coastal Zone boundary was reviewed for Los Angeles County (California Coastal Commission 2020). Habitat evaluation for wetlands and other waters was conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for both build alternatives was thoroughly walked and surveyed for potential wetlands and other waters.

#### 2.17.2.2 Results – Wetlands and Other Waters within the BSA

The BSA is within and adjacent to Santa Monica State Beach, at the entrance to Santa Monica Pier. The topography of the BSA is generally flat, ranging from approximately 15 to 30 feet above mean sea level. The BSA is within the Santa Monica Bay Hydrologic Unit (HU), HU Code 18070104. This HU includes Santa Monica Bay and nearby portions of its tributaries. The project area is within the Coastal Zone boundary.

According to the National Wetlands Inventory Mapper, estuarine and marine wetland habitat classified as a M2USP (marine, intertidal, unconsolidated shore, irregularly flooded) and M2USN (marine, intertidal, unconsolidated shore, regularly flooded) is present at the sandy beach within the BSA. These are the tidally affected areas of the beach. There are no jurisdictional wetlands or waters within the project area. The M2USP features are subject to the jurisdiction of USACE, the RWQCB, and the California Coastal Commission but would not be affected by the project. No other jurisdictional waters were observed within the BSA during field evaluations. A delineation of wetlands and other waters was not conducted because no encroachment or impacts on jurisdictional waters would occur.



### **2.17.3 Environmental Consequences**

Though there are intertidal areas within the BSA, there are no federal or state jurisdictional waters within the project area; therefore, no waters or wetlands would be affected by Build Alternatives 1 and 2 (LPA). However, because the project would occur within the Coastal Zone, the project would be subject to the CZMA and require a Coastal Development Permit from the California Coastal Commission (refer to Section 2.1, *Land Use*, for additional details).

### **2.17.4 Avoidance, Minimization, and/or Mitigation Measures**

No avoidance, minimization, and/or mitigation measures for jurisdictional water resources are required because none would be affected within the BSA. However, the project would require a Coastal Development Permit from the California Coastal Commission because it would occur within the Coastal Zone; the City does not have its own approved LCP (refer to Section 2.1, *Land Use*, for more details). No other permits pertaining to wetlands or other waters are anticipated to be needed.

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## 2.18 Non-listed Special-Status Plant Species

“Special-status” species are selected for protection because they are rare and/or subject to population and habitat declines. *Special-status* is a general term for species that are provided varying levels of regulatory protection. The highest level of protection is given to species that are formally listed or proposed for listing as endangered or threatened under the FESA and/or the CESA (see Section 2.19, *Threatened and Endangered Species and Designated Critical Habitat*, for detailed information about species protected under the FESA and the CESA).

This section of the document discusses all other special-status plant species, including candidate species (i.e., species determined to warrant either state or federal listing but are not yet proposed for threatened or endangered status and not yet provided protection under the FESA or the CESA) and CNPS rare and endangered plants.

### 2.18.1 Regulatory Setting

The U.S. Fish and Wildlife Service (USFWS) and CDFW have regulatory responsibility for the protection of special-status plant species. State and federal regulations relevant to non-listed special-status animals and the project are described below.

#### 2.18.1.1 Federal Regulations

There are no federal regulations with respect to protecting non-listed special-status plant species. Refer to Section 2.18 for a discussion of the FESA, which protects species that have been listed as threatened or endangered or proposed for listing under federal law.

#### 2.18.1.2 State Regulations

State regulations that pertain to non-listed special-status plant species are described below. Refer to Section 2.18 for a discussion of protection for species that have been listed as threatened or endangered or are proposed for listing under the CESA.

### Native Plant Protection Act

Caltrans projects are subject to the Native Plant Protection Act, found at California Fish and Game Code Sections 1900–1913. California’s Native Plant Protection Act requires all state agencies to use their authority to carry out programs that conserve endangered and rare native plants. Provisions of the act prohibit the taking of listed plants from the wild and require notifying CDFW at least 10 days in advance of any change in land use where listed plants occur. This allows CDFW to salvage listed plant species that would otherwise be destroyed. Caltrans is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and the sections of CEQA that apply to rare or endangered plants.

### State Senate Concurrent Resolution No. 17 – Oak Woodlands

This legislation requests state agencies with land use planning duties and responsibilities to assess and determine the effects of their decisions or actions within oak woodlands containing blue, Englemann, valley, or coast live oak. The measure requests those state agencies to preserve and protect native oak woodlands to the maximum extent feasible or provide replacement plantings where designated oak species are removed from oak woodlands.

## California Desert Native Plants Act

The California Desert Native Plants Act was passed in 1981 to protect non-listed California desert native plants from unlawful harvesting on both public and privately owned lands. Harvest, transport, sale, or possession of specific native desert plants is prohibited unless a person has a valid permit, or wood receipt, and the required tags and seals. The provisions are applicable within the boundaries of the following counties: Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego.

### 2.18.2 Affected Environment

#### 2.18.2.1 Study Methods

Prior to site evaluations, the CNDDDB (CDFW 2016, 2020a) and CNPS Electronic Inventory (CNPS 2016, 2020) were queried for special-status plant species that could occur in the vicinity of the BSA (see the 2016 NESMI included in Appendix M of this EIR/EA document for the summary report and 2020 NESMI addendum). Specifically, database searches were conducted using the USGS 7.5-minute quadrangle map for the BSA (Beverly Hills) and adjacent quadrangles (Topanga, Canoga Park, Van Nuys, Burbank, Hollywood, Inglewood, and Venice). The non-listed special-status plant species reviewed for the proposed project are provided in Table 2.18-1, below.

Habitat evaluations for non-listed special-status plant species were conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for both build alternatives was thoroughly walked and surveyed for potential habitats.

#### 2.18.2.2 Results – Non-listed Special-Status Plant Species within the BSA

Table 2.18-1, below, lists the plant species that are known to occur in the project region and notes their potential to occur within the BSA. Thirty-seven non-listed special-status plant species are known to occur in the region but have no habitat available within the BSA; therefore, they have no potential to occur within the BSA.

The only natural area within the BSA is heavily disturbed sandy beach habitat. Fourteen non-listed special-status plants that are known to occur in the region require sandy beach habitat, which is present within the BSA; therefore, the following species were evaluated for habitat suitability and their potential to occur within the BSA: red sand-verbena (*Abronia maritima*), Coulter's saltbush (*Atriplex coulteri*), south coast saltscale (*Atriplex pacifica*), Lewis's evening primrose (*Camissoniopsis lewisii*), Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*), coastal goosefoot (*Chenopodium littoreum*), island wallflower (*Erysimum insulare*), suffrutescent wallflower (*E. suffrutescens*), vernal barley (*Hordeum intercedens*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*), Brand's star phacelia (*Phacelia stellaris*), Western bristly scaleseed (*Spermolepis lateriflora*), and woolly seablite (*Suaeda taxifolia*). No vegetation or vegetated foredune habitat that would be suitable for these species exists along the sandy beach habitat in the BSA. Therefore, these species are not expected to occur in the BSA. No focused studies for non-listed special-status plants were conducted because of the highly disturbed and developed nature of the sandy beach habitat within the BSA.

**Table 2.18-1. Non-listed Special-Status Plant Species Known to Occur within the Region and  
Their Potential to Occur within the Biological Study Area**

<i>Scientific Name</i> <b>Common Name</b>	<b>Status<sup>a</sup></b> <b>FED/STATE/ CNPS/CNDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup></b> <b>Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Abroina maritima</i> red sand-verbena	-/-/4.2/S3?	Perennial herb found in coastal dunes. Elevation range: 0–300 feet. Blooms: February–November.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Atriplex coulteri</i> Coulter's saltbush	-/-/1B.2/S1S2	Found in coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland habitats—specifically, on ocean bluffs, ridgetops, and in alkaline low places. Requires alkaline or clay soils. Elevation range: 6–1,509 feet. Blooms: March–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Atriplex pacifica</i> south coast saltscale	-/-/1B.2/S2	Found in coastal scrub, coastal bluff scrub, playas, and coastal dune habitats. Requires alkali soils. Elevation range: 3–1,312 feet. Blooms: March–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Atriplex parishii</i> Parish's brittle scale	-/-/1B.1/S1	Alkali meadows, vernal pools, chenopod scrub, and playas. Typically located on alkali flats with finely textured soils. Elevation range: 80–6,160 feet. Blooms: June–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Atriplex serenana</i> var. <i>davidsonii</i> Davidson's brittle scale	-/-/1B.2/S1	Coastal bluff scrub and coastal scrub. Located on alkaline soils. Elevation range: 30–650 feet. Blooms: April–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Calandrinia breweri</i> Brewer's calandrinia	-/-/4.2/S4	Chaparral and coastal scrub. Located on sandy or loamy soils, often in disturbed areas. Elevation range: 30–3,695 feet. Blooms: March–June.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Calachortus catalinae</i> Catalina mariposa lily	-/-/4.2/S3S4	Found in chaparral, cismontane woodland, coastal scrub, and valley and foothill woodland. Elevation range: 49–2,300 feet. Blooming period: February–June.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Calachortus clavatus</i> var. <i>gracilis</i> slender mariposa lily	-/-/1B.2/S2S3	This is a perennial herb that typically blooms from March to June and occurs in chaparral, coastal scrub, and valley and foothill grassland communities. It is found in shaded foothill canyons that range from 1,180–3,280 feet. It is limited in distribution to Los Angeles County.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Calochortus plummerae</i> Plummer's mariposa-lily	-/-/4.2/S4	Marshes and swamps as well as riparian scrub. Historically associated with wetland and marshy places but possibly in drier situations as well. Possibly located on silty loam and alkaline. Elevation range: 0–65 feet. Blooms: April–May	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Calystegia felix</i> lucky morning-glory	-/-/1B.1/S1	Historically associated with wetland and marshy places but possibly in drier areas as well. Possibly found in silty loam and alkaline soils in meadows and seeps (sometimes alkaline) as well as riparian scrub (alluvial).	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
		Elevation range: 90–650 feet. Blooms: March–September.			
<i>Camissoniopsis lewisii</i> Lewis’s evening primrose	-/-/3/S4	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland on sandy or clay soils. Elevation range: 0–975 feet. Blooms: March–May, sometimes June.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Centromadia parryi</i> ssp. <i>australis</i> southern tarplant	-/-/1B.1/S2	Marsh and swamp margins and valley and foothill grassland. Often located on disturbed sites near the coast on alkali soils. Elevation range: 0–1,385 feet. Blooms: May–November	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Cercocarpus betuloides</i> var. <i>Blancheae</i> island mountain mahogany	-/-/4.3/S4	Found in closed-cone coniferous forest and chaparral habitat. Elevation range: 98–2,000 feet. Blooming period: February–May.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt’s pincushion	-/-/1B.1/S1	Coastal bluff scrub and coastal dunes. Located on sandy soils. Elevation range: 0–330 feet. Blooms: January–August.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Chenopodium littoreum</i> coastal goosefoot	-/-/1B.2/S1	Coastal dunes. Elevation range: 30–95 feet. Blooms: April–August.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.



<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Convolvulus simulans</i> small-flowering morning-glory	-/-/4.2/S4	Coastal scrub and valley and foothill grassland. Located on sandy soils. Elevation range: 490–4,000 feet. Blooms: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Deinandra minthornii</i> Santa Susana tarplant	-/-/1B.2/S2	This deciduous shrub can be found at elevations from 919 to 2,493 feet in rocky chaparral and coastal scrub communities of Ventura and Los Angeles Counties. The typical blooming period is July to November.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Deinandra paniculata</i> paniculate tarplant	-/-/4.2/S4	Coastal scrub, valley and foothill grassland, and vernal pools. Typically located on vernal mesic sites, sometimes in vernal pools or on mima mounds near them. Elevation range: 80–3,055 feet. Blooms: April–November.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Dichondra occidentalis</i> western dichondra	-/-/4.2/S4	Chaparral, cismontane woodland, valley and foothill grassland, and coastal scrub. Located on sandy loam, clay, and rocky soils. Elevation range: 160–1,625 feet. Blooms: January–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Dudleya blochmaniae</i> ssp. <i>Blochmaniae</i> Blochman's dudleya	-/-/1B.1/S2	Coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland. Located in rocky soils, often in clay or serpentinite soils. Elevation range: 15–1,300 feet. Blooms: April–June.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Dudleya multicaulis</i> many-stemmed dudleya	-/-/1B.2/S2	Chaparral, coastal scrub, and valley and foothill grassland. Located in heavy soils, often in clay soils, or on grassy slopes. Elevation range: 45–2,560 feet. Blooms: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Erysimum insulare</i> island wallflower	-/-/1B.3/S3	Coastal bluffs and dunes. Elevation range: 0–900 feet. Blooms: March–July.	HP	Not expected to occur.	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Erysimum suffrutescens</i> suffrutescent wallflower	-/-/4.2/S3	Coastal bluff scrub, coastal scrub, and valley and foothill grassland. Located on coastal dunes and bluffs. Elevation range: 0–490 feet. Blooms: January–July.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Helianthus nuttallii</i> ssp. <i>Parishii</i> Los Angeles sunflower	-/-/1A/SH	Coastal saltwater and freshwater marshes and swamps. Elevation range: 30–5,445 feet. Blooms: August–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Hordeum intercedens</i> vernal barley	-/-/3.2/S3S4	Coastal dunes, coastal scrub, valley and foothill grassland, and vernal pools. Located on saline flats and depressions. Elevation range: 15–3,240 feet. Blooms: March–June.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Horkelia cuneata</i> ssp. <i>puberula</i> mesa horkelia	-/-/1B.1/S1	Chaparral, cismontane woodland, and coastal scrub. Located on sandy or gravelly sites. Elevation range: 225–2,625 feet. Blooms: February–September.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Juglans californica</i> Southern California black walnut	-/-/4.2/S4	This deciduous tree blooms from March to August in alluvial soils of cismontane woodland, chaparral, and coastal scrub between 164 and 2,952 feet. Known from Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, San Diego, and Ventura Counties.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Juncus acutus</i> ssp. <i>Leopoldii</i> southwestern spiny rush	-/-/4.2/S4	Coastal dunes, meadows and seeps, and coastal salt marshes. Located on mesic sites, alkaline seeps, and coastal salt marshes. Elevation range: 10–2,925 feet. Blooms: May–June.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i> Coulter's goldfields	-/-/1B.1/S2	Coastal salt marshes, playas, valley and foothill grassland, and vernal pools. Typically located on alkaline soils in playas, sinks, and grasslands. Elevation range: 1–3,955 feet. Blooms: February–June.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Lilium humboldtii</i> ssp. <i>Ocellatum</i> ocellated Humboldt lily	-/-/4.2/S4?	Openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodlands. Elevation range: 90–5,500 feet. Blooms: March–August.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Linanthus concinus</i> San Gabriel linanthus	-/-/1B.2/S2	Rocky areas and openings in chaparral, lower montane coniferous forest, and upper montane coniferous forest. Elevation range: 4,500–8,500 feet. Blooms: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Malacothamnus davidsonii</i> Davidson’s bush mallow	-/-/1B.2/S2	Chaparral, cismontane woodland, coastal scrub, and riparian woodland. Elevation range: 607–2,800 feet. Blooms: June–January.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Monardella hypoleuca</i> ssp. <i>hypoleuca</i> white-veined monardella	-/-/1B.3/S3	Found in chaparral and cismontane woodland. Located on dry slopes. Elevation range: 164–5,000 feet. Blooming period: April–December.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Nama stenocarpum</i> mud nama	-/-/2B.2/S1S2	Marshes and swamps. Located on lake shores, streambanks, and intermittently wet areas. Elevation range: 15–1,620 feet. Blooms: January–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	-/-/1B.2/S2	Found in mesic conditions within coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), and vernal pools. Elevation range: 45–2,270 feet. Blooms: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Phacelia hubbyi</i> Hubby’s phacalia	-/-/4.2/S4	Found in gravelly, rocky, talus soil in chaparral, coastal scrub, and valley and foothill grassland habitat. Elevation range: 0–3,280 feet. Blooming period: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Phacelia ramosissima</i> var. <i>austrolitoralis</i> south coast branching phacelia	-/-/3.2/S3	Chaparral, coastal dunes, coastal scrub, and coastal salt marshes. Located on sandy, sometimes rocky soils. Elevation range: 20–975 feet. Blooms: March–August.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Phacelia stellaris</i> Brand's star phacelia	-/-/1B.1/S1	Coastal scrub and coastal dunes. Located in open areas. Elevation range: 1–1,300 feet. Blooms: March–June.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Potentilla multijuga</i> Ballona cinquefoil	-/-/1A/SX	Perennial herb found in brackish meadows and seeps. Elevation range: 0–10 feet. Blooms: June–August.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Pseudognaphalium leucocephalum</i> white rabbit-tobacco	-/-/2B.2/S2	Riparian woodland, cismontane woodland, coastal scrub, and chaparral. Elevation range: 0–6,825 feet. Blooms: July–December.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Quercus dumosa</i> Nuttall's scrub oak	-/-/1B.1/S3	This evergreen shrub blooms from February to August at elevations from 49 to 1,312 feet. It inhabits sandy soils and clay loam in coastal scrub, chaparral, and closed-cone coniferous forests. It can be found along the coasts of Santa Barbara, Orange, and San Diego Counties.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Sidalcea neomexicana</i> salt spring checkerbloom	-/-2B.2/S2	Alkali playas, brackish marshes, chaparral, coastal scrub, lower montane coniferous forest, and Mojavean desert scrub. Located on alkali springs and marshes. Elevation range: 45–4,960 feet. Blooms: March–June.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Spermolepis lateriflora</i> western bristly scaleseed	-/-2A/SH	Found in Sonoran desert scrub. Requires rocky or sandy soils. Elevation range: 1,198–2,198 feet. Blooms: March–April.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Suaeda esteroa</i> estuary seablite	-/-1B.2/S2	Coastal salt marshes and swamps. Located on clay, silt, and sand substrates. Elevation range: 0–15 feet. Blooms: May–January.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Suaeda taxifolia</i> woolly seablite	-/-4.2/S4	Coastal bluff scrub, coastal dunes, and margins of coastal salt marshes. Elevation range: 0–165 feet. Blooms: January–December.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Symphyotrichum defoliatum</i> San Bernardino aster	-/-1B.2/S2	Meadows and seeps, marshes and swamps, coastal scrub, cismontane woodland, lower montane coniferous forest, and grassland. Located in mesic grassland near ditches, streams, and springs. Elevation range: 5–6,630 feet. Blooms: July–November.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

<i>Scientific Name</i> <b>Common Name</b>	<b>Status<sup>a</sup></b> <b>FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup></b> <b>Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Symphyotrichum greata</i> Greata's aster	-/-/1B.3/S2	Chaparral and cismontane woodland. Located in mesic canyons. Elevation range: 975–6,535 feet. Blooms: June–October.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.
<i>Thelypteris puberula</i> var. <i>sonorensis</i> Sonoran maiden fern	-/-/2B.2/S2	This rhizomatous perennial herb inhabits seeps and streams in meadows, from Southern California south to Sonora, Mexico, and east to Arizona. In California, it is known from Santa Barbara, Los Angeles, Riverside, and San Bernardino Counties, at elevations from about 164 to 2,001 feet. This fern is rare to uncommon in California but more common outside the state.	HA	No potential to occur	No suitable habitat is present within the BSA. Therefore, this species is not expected to occur. No further constraint is present.

**<sup>a</sup> Status Codes****Federal**

FE = Federally Listed; Endangered  
 FT = Federally Listed; Threatened  
 FPE = Federally Proposed;  
 Endangered  
 FPT = Federally Proposed;  
 Threatened  
 FC = Federal Candidate for Listing  
 FD = Delisted

**State**

SE = State Listed; Endangered  
 ST = State Listed; Threatened  
 SPE = State Proposed; Endangered  
 SPT = State Proposed; Threatened  
 SC = State Candidate for Listing  
 SR = Rare (Native Plant Protection Act)  
 SSC = California Species of Special  
 Concern  
 CFP = California Fully Protected Species  
 SD = Delisted

**CNPS Rare Plant Rank (CRPR)**

1A = Plants presumed extirpated in California and either rare or extinct elsewhere  
 1B = Plants rare, threatened, or endangered in California and elsewhere  
 2A = Plants presumed extirpated in California but more common elsewhere  
 2B = Plants rare, threatened, or endangered in California but more common elsewhere  
 3 = Plants about which we need more information (Review List)  
 4 = Plants of limited distribution (Watch List)

**CNPS CRPR Threat Codes**

0.1 = Seriously threatened in California  
 0.2 = Moderately threatened in California  
 0.3 = Not very threatened in California



<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<p><b>CNDDDB State Rank</b></p> <p>Note: The CNDDDB uses the same ranking methodology that was originally developed by the Nature Conservancy, which is now maintained and was recently revised by NatureServe. The state rank (S-rank) refers to imperilment status only within California's state boundaries. It is a reflection of the overall status of an element through its state range. The state rank represents a letter-plus-number score that reflects a combination of rarity, threat, and trend factors, with weighting being heavier on rarity than the other two factors.</p> <p>S1 = Critically Imperiled (critically imperiled in the state because of extreme rarity [often five or fewer] or factors such as very steep declines that make it especially vulnerable to extirpation from the state).</p> <p>S2 = Imperiled (imperiled in the state because of rarity related to a very restricted range, very few populations [often 20 or fewer], steep declines, or other factors that make it very vulnerable to extirpation from the state).</p> <p>S3 = Vulnerable (vulnerable in the state because of a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors that make it vulnerable to extirpation from the state).</p> <p>S4 = Apparently Secure (uncommon but not rare in the state; some cause for long-term concern because of declines or other factors).</p> <p>S5 = Secure (common, widespread, and abundant in the state).</p> <p>SH = All sites are historical; the element has not been seen for at least 20 years but suitable habitat still exists.</p> <p>SX = All sites are extirpated.</p> <p>Uncertainty about the rank of an element is expressed in two major ways:</p> <ul style="list-style-type: none"> <li>• By expressing the ranks as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3).</li> <li>• By adding a "?" to the rank (e.g., S2? represents more certainty than S2S3 but less certainty than S2).</li> </ul> <p><b><sup>b</sup>Habitat Presence/Absence Codes</b></p> <p>P = The species is present and was observed during survey efforts.</p> <p>HP = Habitat is or may be present within project footprint. The species may be present.</p> <p>HA = No habitat present, and no further work needed.</p> <p>Gray Highlight = No potential to occur in the BSA, and not further evaluated.</p>					

### 2.18.3 Environmental Consequences

Because non-listed special-status plant species and suitable habitat are not expected to occur within the BSA and project area, none would be affected by Build Alternatives 1 or 2 (LPA). There would be no impacts on non-listed special-status plant species under CEQA or under NEPA.

### 2.18.4 Avoidance, Minimization, and/or Mitigation Measures

Non-listed special-status plant species are not expected to occur within the BSA. However, should they occur within the project area unexpectedly, avoidance and minimization measure **BIO-1** would fully avoid any potential for impacts on these species.

**BIO-1.** All construction-related work, including staging, storage, and access, shall be limited, to the greatest extent feasible; shall occur within the project limits; and shall not encroach upon the sandy beach habitat adjacent to the project area (Figure 1-3).

## 2.19 Non-listed Special-Status Animal Species

This section of the document discusses non-listed special-status animal species, including California Species of Special Concern (SSC), CDFW Fully Protected species (i.e., species that are not also listed under the FESA or the CESA), and candidate species (i.e., species that warrant either state or federal listing but are not yet proposed for threatened or endangered status and not yet provided protection under the FESA or the CESA). Species that are listed or proposed for listing as threatened or endangered are discussed below in Section 2.20, *Threatened and Endangered Species and Designated Critical Habitat*. Regulatory requirements associated with non-listed special-status animals and potential project impacts are discussed.

### 2.19.1 Regulatory Setting

Many state and federal laws regulate impacts on wildlife. USFWS and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) are responsible for implementing federal laws, and CDFW is responsible for implementing state laws. Federal and state laws and policies regulating non-listed special-status animals are described below.

#### 2.19.1.1 Federal Regulations

Federal regulations relevant to non-listed special-status animals and the project are described below.

##### **Migratory Bird Treaty Act**

This treaty with Canada, Mexico, and Japan makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season. The California Fish and Game Code also protects resident and migratory birds.

##### **Fish and Wildlife Coordination Act**

Under the Fish and Wildlife Coordination Act, federal agencies, and therefore project proponents, are required to consult with the USFWS and the appropriate state wildlife agency. Reports and recommendations prepared by these agencies evaluate effects on wildlife and identify measures to prevent the loss of wildlife resources. The term "wildlife" includes both animals and plants. Provisions of this act are implemented through the NEPA process as well as the Section 404 permit process.

##### **Marine Mammal Protection Act**

Marine Mammal Protection Act (MMPA) generally prohibits "take" of marine mammals in U.S. waters by any person, as well as U.S. citizens in international waters, and the import of marine mammals and marine mammal products into the U.S. However, NMFS can authorize take for the certain activities.

All marine mammals are protected under the MMPA, not just those listed as *protected* under the FESA. If impacts on marine mammals are anticipated, early consultation with NMFS should take place to identify the extent of the impacts and the mitigation commitments. Some marine mammals are listed under the FESA; when the FESA and the MMPA both apply, MMPA compliance is integrated into FESA Section 7 consultation.

### **2.19.1.2 State Regulations**

State regulations relevant to non-listed special status animals and the project are described below.

#### **California Fish and Game Code**

##### ***Section 1600, et seq. (Streambed Alteration)***

Refer to Section 2.18, *Wetlands and Other Waters*, for a discussion of California Fish and Game Code Section 1600, et seq. (Streambed Alteration), and a description of the regulations that pertain to wetlands and other waters. State agencies are required to notify CDFW prior to any project that would divert a river, stream, or lake and obstruct or change the natural flow, bed, channel, or bank of a river, stream, or lake. When a fish or wildlife resource may be adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

##### ***Sections 3503, 3503.5, and 3513 – Native Bird Protection***

Sections 3503, 3503.5, and 3513 of the California Fish and Game Code protect native birds. Section 3503 makes it unlawful to take possess, or needlessly destroy, nests or eggs; Section 3503.5 specifies protection for birds of prey (e.g., raptors); and Section 3513 makes it unlawful to possess or take migratory nongame birds, consistent with the MBTA. Mitigation pertaining to the avoidance of impacts on nesting birds is typically necessary to comply with these sections of the California Fish and Game Code under CEQA and other permitting documents.

##### ***Sections 3511, 4700, 5050, and 5515 – Designation of Fully Protected Species in California***

California Fish and Game Code Sections 3511, 4700, 5050, and 5515 designate 37 species of wildlife as Fully Protected in California. The classification of Fully Protected provides additional protection to animals that are rare or face possible extinction. Most Fully Protected species have also been listed as threatened or endangered under the CESA. Birds are designated in Section 3511, mammals are designated in Section 4700, reptiles and amphibians are designated in Section 5050, and fish are designated in Section 5515. Fully Protected species may not be taken or possessed at any time, and no licenses or permits may be issued for their take, except for necessary scientific research and relocation of the bird species for the protection of livestock.

##### ***Sections 4150 through 4158 – Protection of Nongame Mammals***

Section 4150 of the California Fish and Game Code protects nongame mammals by disallowing take or possession. Section 4152 allows take of some species of nongame mammals, including some nonnative mammals, if agriculture is threatened. It also specifies additional restrictions on take of nongame mammals.

**Sections 4500 through 4502.5 – Protection of Marine Mammals**

Sections 4500 through 4502.5 of the California Fish and Game Code protect marine mammals in accordance with the MMPA.

**Sections 5901 and 5937 – Dams and Streamflows to Maintain Fish in Good Condition**

Section 5901 of the California Fish and Game Code restricts the construction of dams or obstructions within streams in certain districts of California. Section 5937 requires dam owners to ensure streamflows through or past dams to maintain fish populations in streams below the dams.

**2.19.2 Affected Environment****2.19.2.1 Study Methods**

Prior to site evaluations, the CNDDDB (CDFW 2016, 2020a) and USFWS Information, Planning, and Conservation System (IPaC) database (USFWS 2020b) were queried regarding special-status animal species that could occur in the vicinity of the BSA (see the 2016 NESMI included in Appendix M of this EIR/EA document for the summary report and 2020 technical addendum). Specifically, the database searches were conducted using the USGS 7.5-minute quadrangle map for the BSA (Beverly Hills) and the adjacent quadrangles (Topanga, Canoga Park, Van Nuys, Burbank, Hollywood, Inglewood, and Venice). The non-listed special-status animal species reviewed for the proposed project are provided in Table 2.19-1, below.

Habitat evaluations for non-listed special-status animal species were conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for each alternative was thoroughly walked and surveyed for potential habitat, and observations of wildlife species were made.

**2.19.2.2 Results – Non-listed Special-Status Animal Species within the BSA**

The BSA is dominated by urban development, consisting of roadways, public parks and beaches, landscaped areas, residences, and public access areas. The potential for wildlife to occur in the BSA is limited primarily to bat and bird roosting and nesting habitat at the Pier Bridge and in the ornamental vegetation within the BSA (e.g., palm trees) as well as the highly disturbed sandy beach on the west side of the BSA. Bridge hinges, wooden pier rafters, and ornamental vegetation (e.g., palm trees) may provide nesting and/or roosting habitat for bats and birds. Wildlife species observed during the site visit included rock pigeon (*Columba livia*) and gull species (*Larus* spp.); no special-status wildlife species were observed within the BSA.

A complete list of the non-listed special-status animals that could occur in the regional vicinity of the BSA, as well as an evaluation of their potential to occur within the BSA, is provided in Table 2.19-1. Twenty-three non-listed special-status animal species are known to occur in the region but have no habitat available within the BSA; therefore, they have no potential to occur within the BSA.

One non-listed special-status animal species has low potential with respect to occurring in the BSA: western yellow bat (*Lasiurus xanthinus*); this species is discussed further below. In addition, there is habitat for crevice-dwelling bat and bird species within the BSA—specifically,

in the hinges and joints on the Pier Bridge. Finally, sandy beach habitat for pinnipeds is also present within the BSA. Discussions of crevice-dwelling bat species, nesting birds, and pinnipeds protected under the MMPA are provided below.

### **Discussion of Western Yellow Bat**

This species is a solitary tree-roosting bat that may be migratory or may be present year-round throughout Southern California, although little information is known about its range. This species is typically associated with water features in open grassy areas, scrub, canyons, and riparian habitats. Individuals usually roost in trees, hanging from the underside of leaves, and are commonly found in the southwestern United States, roosting in skirts of dead palm fronds in both native and nonnative palm trees. Potential roosting habitat is present within the BSA in the large palm trees; however, there are no nearby riparian or freshwater foraging areas to support this species. The nearest documented occurrence in the CNDDB was approximately 16 miles northeast of the project area, near Glendale, in the 1980s (CDFW 2020a). Considering the lack of foraging habitat and the long distance to the nearest known population, there is low potential for this species to roost as migrants in the palm trees within the BSA.

### **Discussion of Pinnipeds Protected under the MMPA**

Pinnipeds protected under the MMPA are found in marine waters throughout coastal California. Pinnipeds often use coastal areas such as beaches, rocky intertidal zones, and docks as haul-out and resting areas. Some species breed on protected sandy beaches of Southern California. Sandy beach habitat is present along the western edge of the BSA; however, because of the highly disturbed nature of the beach and high degree of human use within the BSA, this habitat is not suitable for haul-out or breeding habitat. Pinnipeds are not expected to occur within the BSA.

### **Discussion of Crevice-Dwelling Species**

The existing bridge joints and hinges within the Pier Bridge may provide roosting or nesting habitat for crevice-dwelling species such as bats and birds (e.g., swifts). Such crevices provide shelter for these species in the absence of natural crevice habitat and are commonly used by a variety of crevice-dwelling species. Because of the level of traffic in the area and the disturbed and urban nature of the BSA, there is low potential for crevice-dwelling species to occur. Although there is low potential for these species to occur at the bridge, some species are well adapted to disturbance and may have higher potential to occur in these features.

The only species observed in the bridge crevices was the nonnative rock pigeon (*Columba livia*), a species that is highly adapted to and tolerant of human disturbance. During site-visit evaluations, the species was observed (e.g., nesting material or whitewash below nesting material was observed) nesting and roosting in the hinges of the existing bridge, on wooden pier rafters, and on light fixtures along the wooden pier pedestrian/bike path. No sign (e.g., urine staining, guano, vocalization) of any other bird or bat species was observed. No non-listed special-status crevice-dwelling species are expected to occur within the BSA.

**Table 2.19-1. Non-listed Special-Status Animal Species Known to Occur in the Region and  
Their Potential to Occur within the Biological Study Area**

<b>Scientific Name/ Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat Present/<sup>b</sup> Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Anniella stebbinsi</i> Southern California legless lizard	-/SSC/S3	Occurs in moist, warm loose soil with plant cover and sparsely vegetated areas with beach dunes, chaparral, pine oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes that has been stabilized with bush lupine and mock heather often indicates suitable habitat. Found under surface objects such as rocks, boards, driftwood, and logs. Sometimes found in suburban gardens in Southern California. Soil characteristics, as well as requirements for soil moisture and relatively cool microclimates (about 93°F, maximum), limit distribution.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Antrozous pallidus</i> pallid bat	-/SSC/S3	This bat species is widely distributed in the southwestern United States and northern Mexico. It is locally common across most of California, except in the far northwest and higher portions of the Sierra Nevada. Habitats utilized include a wide variety of grasslands, shrublands, woodlands, and forests, including mixed conifer forest. Appears to be most common in open, dry, rocky lowlands. Roosts are in caves, mines, crevices in rocks, buildings, and trees. This is a colonial species that forages low over open ground, often picking up beetles and other species of prey off the ground.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Arizona elegans occidentalis</i> California glossy snake	-/CSC/S2	Most common in desert habitats but also occurs in chaparral, sagebrush, valley foothill hardwood, pine-juniper, and annual grassland habitats.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.



Scientific Name/ Common Name	Status <sup>a</sup> FED/STATE/ CNDDDB	General Habitat Description	Specific Habitat Present/ <sup>b</sup> Absent	Potential to Occur within the BSA	Rationale
<i>Aspidoscelis tigris stejnegeri</i> coastal whiptail	-/SSC/S3	Habitats include a disturbed coastal sage scrub-chaparral mix and cleared areas of chaparral with a sandy/rocky substrate.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Athene cunicularia</i> burrowing owl	-/SSC/S3	Level, open, dry, heavily grazed, or low grassland or desert vegetation with available burrows. In coastal Southern California, a substantial fraction of burrowing owls is found in microhabitats that have been highly altered by humans, including flood control and irrigation basins, dikes, banks, abandoned fields surrounded by agriculture, and road cuts and margins. Several factors in combination probably explain distribution of the species on local scales (e.g., vegetation density, availability of suitable prey, availability of burrows or suitable soil, disturbance).	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Coturnicops noveboracensis</i> yellow rail	-/SSC/S1S2	Occurs in densely vegetated marshes. Breeds in sedge marshes/meadows with shallow standing water.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Emys marmorata</i> western pond turtle ( <i>Actinemys pallida</i> southwestern pond turtle)	-/SSC/S3	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches with abundant vegetation and either rocky or muddy bottoms in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Eumops perotis californicus</i> western mastiff bat	-/SSC/S3S4	Primarily a cliff-dwelling species. Maternity colonies of 30 to several hundred (typically fewer than 100) roost generally under exfoliating rock slabs (e.g., granite, sandstone, columnar basalt). It has also been found in crevices in large boulders and buildings. Roosts are generally high above the ground, allowing	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name/ Common Name	Status <sup>a</sup> FED/STATE/ CNDDDB	General Habitat Description	Specific Habitat Present/ <sup>b</sup> Absent	Potential to Occur within the BSA	Rationale
		a clear vertical drop of at least 9.8 feet below the entrance for flight. Forages in broad open areas.			
<i>Lasiurus xanthinus</i> western yellow bat	-/SSC/S3	Some populations may be migratory, although some individuals appear to be present year-round. Species probably does not hibernate. Associated with water features in open grassy areas and scrub as well as canyon and riparian situations. Thought to be non-colonial. Individuals usually roost in trees, hanging from the underside of a leaf. Commonly found in the southwestern United States, roosting in the skirt of dead fronds in both native and nonnative palm trees.	HP	Low potential to occur	Potential roosting habitat is present within the BSA in the large palm trees. However, there are no nearby riparian or freshwater foraging areas to support a population. The nearest documented occurrence in the CNDDDB was approximately 16 miles northeast of the project site near Glendale in the 1980s (CDFW 2020a). Considering the lack of foraging habitat and distance to nearest known population, the species has low potential with respect to occurring within the BSA.
<i>Microtus californicus stephensi</i> south coast marsh vole	-/SSC/S1S2	Occurs in the area of tidal marshes in Los Angeles, Orange, and southern Ventura Counties.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	-/SSC/S3S4	Occurs in two disjunct areas in California: northeastern California from eastern Modoc County to southeastern Lassen County and most of Southern California from Mono County south through the Mojave desert and from northern Tulare County south to the San Bernardino Mountains. Occurs in a variety of shrub and desert habitats, typically with rock outcrops, boulders, cacti, and/or areas of dense undergrowth.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	-/SSC/S3	Occurs in a variety of arid areas in Southern California, including pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian. Prefers rocky areas with high cliffs for roosting.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name/ Common Name	Status <sup>a</sup> FED/STATE/ CNDDDB	General Habitat Description	Specific Habitat Present/ <sup>b</sup> Absent	Potential to Occur within the BSA	Rationale
<i>Nyctinomops macrotis</i> big free-tailed bat	-/SSC/S3	In Southern California, found in low-lying arid areas. Needs high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Onychomys torridus ramona</i> southern grasshopper mouse	-/SSC/S3	Wide variety of dry to moderately dry scrub, grassland, and woodland habitats across Southern California, exclusive of the more mesic coastal areas from Ventura County north.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Pelecanus occidentalis californicus</i> California brown pelican	(nesting colony/ communal roosts) FD/SD, CFP/S3	This widely known pelican is the largest bird, with a wingspan of about 7 feet, that occurs regularly along our shorelines. It forages along the coast in brackish lagoons and up to 100 miles out to sea. It is not found inland, except at the Salton Sea in Imperial and Riverside Counties, in small numbers along the Colorado River, and occasionally following prey for short distances up larger rivers near the coast. Nests on offshore islands.	HA	No potential to occur (nesting/ roosting)	No suitable nesting or roosting habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Perognathus longimembris brevinasus</i> Los Angeles pocket mouse	-/SSC/S1S2	Occurs in lower-elevation grassland, alluvial sage scrub, and coastal sage scrub in the coastal basins of Southern California, from coastal areas through the San Jacinto and Temecula Valleys to Warner Pass and Temecula, excluding the San Fernando Valley. The known elevational range is from 548 to 2,657 feet.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Phrynosoma blainvillii</i> coast horned lizard	-/SSC/S3S4	Found in a wide variety of vegetation communities, from grasslands and shrublands to woodlands, including coniferous forests. Critical factors are the presence of loose soils with a high sand fraction; an abundance of native ants or other insects, especially harvester ants ( <i>Pogonomyrmex</i> spp.); and the availability of both sunny basking spots and dense cover for refuge.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name/ Common Name	Status <sup>a</sup> FED/STATE/ CNDDDB	General Habitat Description	Specific Habitat Present/ <sup>b</sup> Absent	Potential to Occur within the BSA	Rationale
<i>Sorex ornatus salicornicus</i> Southern California saltmarsh shrew	-/SSC/S1	Occurs in coastal marshes in Los Angeles, Orange and Ventura Counties. Based on other studies of shrews, may require dense ground cover and nesting sites that are above the mean high tide and free from inundation.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Spea hammondi</i> western spadefoot	-/SSC/S3	Found primarily in grasslands but occasional occurs in valley-foothill hardwood woodlands. Requires shallow intermittent pools for breeding.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Taxidea taxus</i> American badger	-/SSC/S3	Commonly found in treeless areas, including tallgrass and shortgrass prairies, grass-dominated meadows and fields within forested habitats, and shrub-steppe communities.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Thamnophis hammondi</i> two-striped garter snake	-/SSC/S3S4	Endemic to coastal Southern California, from the Santa Clara River Valley south to northern San Diego County. Maximum known elevation is about 2,270 feet. Restricted to marsh and upland habitats near permanent water with good strips of riparian vegetation where adequate prey and refuge can be found.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
Marine Mammal Protection Act–protected cetaceans	-/-/-	Non-listed cetaceans protected under the MMPA are found in marine waters.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
Marine Mammal Protection Act–protected pinnipeds	-/-/-	Non-listed pinnipeds protected under the MMPA are found in marine waters and haul out at coastal areas such as beaches, rocky intertidal zones, and docks.	HP	Not expected to occur	Sandy beach habitat is present within the BSA; however, because of the highly disturbed nature and high human use of the beach, pinnipeds are not expected to occur within the BSA. No further constraint is present.

Scientific Name/ Common Name	Status <sup>a</sup> FED/STATE/ CNDDDB	General Habitat Description	Specific Habitat Present/ <sup>b</sup> Absent	Potential to Occur within the BSA	Rationale
<b><u><sup>a</sup> Status Codes</u></b>		<b>CNDDDB State Rank</b>			
<b>Federal</b>		<p>Note: The CNDDDB uses the same ranking methodology that was originally developed by the Nature Conservancy, which is now maintained and was recently revised by NatureServe. The state rank (S-rank) refers to the imperilment status only within California's state boundaries. It is a reflection of the overall status of an element through its state range. The state rank represents a letter-plus-number score that reflects a combination of rarity, threat, and trend factors, with weighting being heavier on rarity than the other two factors.</p> <p>S1 = Critically Imperiled (critically imperiled in the state because of extreme rarity [often five or fewer] or because of factors such as very steep declines that make it especially vulnerable to extirpation from the state).</p> <p>S2 = Imperiled (imperiled in the state because of rarity related to a very restricted range, very few populations [often 20 or fewer], steep declines, or other factors that make it very vulnerable to extirpation from the state).</p> <p>S3 = Vulnerable (vulnerable in the state because of a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors that make it vulnerable to extirpation from the state).</p> <p>S4 = Apparently Secure (uncommon but not rare in the state; some cause for long-term concern because of declines or other factors).</p> <p>S5 = Secure (common, widespread, and abundant in the state).</p> <p>SH = All sites are historical; the element has not been seen for at least 20 years but suitable habitat still exists.</p> <p>SX = All sites are extirpated.</p> <p>Uncertainty about the rank of an element is expressed in two major ways:</p> <ul style="list-style-type: none"> <li>• By expressing the ranks as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3).</li> <li>• By adding a "?" to the rank (e.g., S2? represents more certainty than S2S3 but less certainty than S2).</li> </ul>			
FE = Federally Listed; Endangered FT = Federally Listed; Threatened FPE = Federally Proposed; Endangered FPT = Federally Proposed; Threatened FC = Federal Candidate for Listing SD = Delisted					
<b>State</b>					
SE = State Listed; Endangered ST = State Listed; Threatened SPE = State Proposed; Endangered SPT = State Proposed; Threatened SC = State Candidate for Listing SR = Rare (Native Plant Protection Act) SSC = California Species of Special Concern CFP = California Fully Protected Species SD = Delisted					
<b><u><sup>b</sup> Habitat Presence/Absence Codes</u></b>					
P = The species is present and was observed during survey efforts. HP = Habitat is or may be present within project footprint. The species may be present. Focused survey is warranted. HA = No habitat present, and no further work needed. Gray Highlight = No potential to occur in the BSA, and not evaluated further.					

## Discussion of Nesting Birds

There is potential for a wide variety of birds to nest within the BSA. Birds may nest on the ground, in trees and shrubs, or in/on buildings and structures. The birds that are expected to occur within the BSA are species that are adapted to developed, urbanized, and disturbed areas. No non-listed special-status bird species are expected to nest within the BSA. However, all migratory nesting birds and raptors are protected under the MBTA, and there is potential for birds to nest in ornamental vegetation or human-made structures within the BSA.

### 2.19.3 Environmental Consequences

Tree-Roosting Bat Species: Western yellow bat was determined to have low potential with respect to occurring within the BSA—specifically, in palm trees. Project activities associated with Build Alternatives 1 and 2 (LPA) may cause direct and/or or indirect disturbance in the form of tree disturbance, tree removal, or noise adjacent to trees and may affect this species. Measure BIO-2 would ensure that project impacts would be avoided and minimized to the greatest extent possible, thereby ensuring that impacts would be less than significant under CEQA and not adverse under NEPA.

Pinniped Species: No non-listed pinniped species that has been protected under the MMPA is expected to occur within the project area. Project activities associated with Build Alternatives 1 and 2 (LPA) would not occur within or immediately adjacent to sandy beach habitat. Therefore, should pinnipeds unexpectedly occur within the BSA, potential impacts would not occur because the habitat would be completely avoided.

Crevice-Dwelling Bat and Bird Species: Although no non-listed, special-status crevice-dwelling species are expected to occur within the BSA, project activities associated with Build Alternatives 1 and 2 (LPA) resulting in the removal of the Pier Bridge have the potential to directly affect species that may be unexpectedly roosting or nesting within the bridge joints and hinges, potentially causing direct mortality. Measures BIO-3 and BIO-4 would ensure that project impacts would be avoided and minimized to the greatest extent possible, thereby ensuring that impacts would be less than significant under CEQA and not adverse under NEPA.

Nesting Bird Protection: Although no non-listed special-status bird species are expected to occur within the BSA, all migratory nesting birds and raptors are protected under the MBTA and California Fish and Game Code. Project activities associated with Build Alternatives 1 and 2 (LPA) have the potential to affect migratory and nesting birds if the birds are unexpectedly nesting within the BSA, such as in ornamental vegetation or human-made structures. Vegetation or structure removal or disturbances from construction activities may result in direct impacts. In accordance with the provisions of the MBTA and California Fish and Game Code, measure BIO-5, in addition to aforementioned measures BIO-3 and BIO-4, would be incorporated into the proposed project to ensure that impacts would be less than significant under CEQA and not adverse under NEPA.

## 2.19.4 Avoidance, Minimization, and/or Mitigation Measures

The following measures apply to both Build Alternatives 1 and 2 (LPA) to avoid and minimize impacts on non-listed special-status animal species and nesting birds and raptors protected under the MBTA and California Fish and Game Code.

**BIO-2.** To avoid impacts on bats that may be roosting in palm trees within the project area, direct impacts on unmanicured palms with dead fronds shall be avoided during construction, and activities that cause high levels of vibration and/or noise, within 500 feet, shall also be avoided. If it is not possible to avoid direct impacts (e.g., tree removal, tree disturbance, tree trimming), as well as indirect impacts (e.g., noise, vibration), a qualified bat biologist shall survey the trees in the project area (i.e., conduct acoustic nighttime surveys) prior to disturbance to determine whether bats are roosting. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning.

If bats are present, the bat biologist shall monitor construction activities to ensure that bats are not affected. The qualified bat biologist may also provide other avoidance measures to ensure that impacts are avoided and minimized.

**BIO-3.** A qualified bat biologist who is also familiar with crevice-dwelling bird species shall survey the project disturbance limits and the Pier Bridge in early summer, prior to construction, to assess the potential for the bridge's use for bat roosting, bat maternity roosting, and bird roosting/nesting (maternity roosts and nests generally form in spring). The qualified bat biologist shall also perform preconstruction surveys within 2 weeks of construction because bat and bird roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning and the City.

**BIO-4.** If recommended by the qualified bat biologist, to avoid indirect disturbance of bats and birds while roosting in areas that would be subject to or adjacent to impacts from construction activities, any portion of a structure that is deemed by a qualified bat biologist to have potential bat or bird roosting habitat, in areas where the young have the ability to fly and may be affected by the proposed project, shall have temporary bat/bird eviction and exclusion devices installed under the supervision of the qualified bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion will be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks, and must be continued to keep the structures free of bats and birds until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., CDFW). Work shall cease around any active bat maternity colony until such time that the young have the ability to fly, as determined by a qualified bat biologist.

**BIO-5.** Within 7 days of the commencement of construction activities (if between January 15 and September 1), a qualified biologist shall perform a nesting bird survey to determine whether there are active migratory bird nests within 200 feet of the project footprint and



raptor nests within 500 feet of the project footprint. If present, this survey shall identify the species and, to the degree feasible, nesting stage (e.g., incubation of young, feeding of young, near fledging). Nests shall be mapped to the nearest location feasible without causing disturbance (close encroachment may cause nest abandonment). If active nests of non-listed migratory birds are found, construction shall not occur within a buffer until the nesting attempt has been completed and/or abandoned because of non-project-related reasons. The buffer distance for non-listed migratory birds shall be determined by the project biologist, depending on the species' requirements, sensitivity to disturbance, and project activities. Construction shall not occur within 500 feet of a raptor's nest until the nesting attempt has been completed and/or abandoned because of non-project-related reasons. If a nest of a special-status migratory bird (either federal or state listed or non-listed) is found, an appropriate buffer distance shall be determined, based on the species' nesting requirements and sensitivity to disturbance, in consultation with the appropriate wildlife agencies (i.e., CDFW and/or USFWS), depending on the species' status. A copy of all survey results and any agency coordination shall be forwarded to Caltrans' Division of Environmental Planning and the City.

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## **2.20 Threatened and Endangered Species and Designated Critical Habitat**

This section of the document discusses animal and plant species that are listed as threatened or endangered, or are proposed for listing as threatened or endangered, under the CESA and/or the FESA. Regulations for their protection are also discussed, along with the habitat areas that have been designated as critical habitat under the FESA.

### **2.20.1 Regulatory Setting**

Many state and federal laws regulate impacts on wildlife. USFWS and NMFS are responsible for implementing federal laws, and CDFW is responsible for implementing state laws. Federal and state laws and policies for regulating threatened and endangered species are described below.

#### **2.20.1.1 Federal Regulations**

##### **Federal Endangered Species Act**

The primary federal law for protecting threatened and endangered species is the FESA (16 USC Section 1531, et seq.) (see also 50 Code of Federal Regulations Part 402). This act and later amendments provide for the conservation of endangered and threatened species as well as the ecosystems upon which they depend. Critical habitat, defined as geographic locations that are critical to the existence of a threatened or endangered species, is also protected. Section 3 of the FESA defines *take* as intending to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt any such conduct.” Under Section 7 of this act, federal agencies, such as FHWA, are required to consult with USFWS and/or NMFS to ensure that they are not undertaking, funding, permitting, or authorizing actions that are likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. The outcome of consultation under Section 7 may include a biological opinion, with an incidental take statement that allows for lawful taking of a species, a letter of concurrence, and/or documentation of a “no effect” finding. Section 9 of the act prohibits take of listed species, as well as the import or export of listed species or products made from them; interstate or foreign commerce in listed species or products made from them; and possession of unlawfully taken listed species.

##### **Migratory Bird Treaty Act**

As described above, this treaty with Canada, Mexico and Japan makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds, including those listed as endangered or threatened. The law applies to the removal of nests (such as swallow nests on bridges) occupied by migratory birds during the breeding season.

### **2.20.1.2 State Regulations**

#### **California Endangered Species Act**

California enacted a law similar to the FESA, the CESA. As defined in California Fish and Game Code Section 2050, et seq., the CESA emphasizes early consultation to avoid potential impacts on rare, endangered, or threatened species and the development of appropriate planning to offset project-caused losses of listed species and their essential habitats. CDFW is the agency with responsibility for implementing the CESA. The CESA allows for take that is incidental to otherwise lawful development projects; for such actions, an incidental take permit is issued by CDFW. For species that are listed under both the FESA and the CESA, requiring a biological opinion under Section 7 of the FESA, CDFW may also authorize impacts on CESA species by issuing a consistency determination under Section 2080.1 of the California Fish and Game Code.

#### **California Fish and Game Code**

Sections 3503, 3503.5, and 3513; Sections 3511, 4700, 5050 and 5515; Sections 4150 through 4158; Sections 4500 through 4502.5; and Sections 5901 and 5937

Refer to Section 2.18.4 for a discussion of California Fish and Game Code Section 1600, et seq. (streambed alteration); Sections 3503, 3503.5, and 3513 (native bird protection); Sections 3511, 4700, 5050 and 5515 (designation of Fully Protected species in California); Sections 4150 through 4158 (protection of nongame mammals); Sections 4500 through 4502.5 (protection of marine mammals); and Sections 5901 and 5937 (dams and streamflow for fish). These regulations are not specific to endangered species but pertain to all animals and plants that are also federally and/or state listed as threatened or endangered or proposed for listing.

#### **Section 2080 – Take of Listed Species**

Section 2080 of the California Fish and Game Code prohibits take of any species that has been determined to be an endangered species or a threatened species. Take is defined in Section 86 of the California Fish and Game Code as intending to “hunt, pursue, catch, capture, or kill or attempt to hunt, pursue, catch, capture, or kill.”

### **2.20.2 Affected Environment**

#### **2.20.2.1 Study Methods**

Prior to site evaluations, an official USFWS IPaC species list, including designated habitat, was requested and obtained from the USFWS on February 12, 2016; September 22, 2017; and March 16, 2020 (USFWS 2020b). A NMFS species list for marine animals was requested on January 12, 2016; September 22, 2017; and March 18, 2020; it was obtained by Caltrans on January 13, 2016; September 22, 2017; and March 18, 2020 (NMFS 2020). The CNDDDB was also queried regarding threatened and endangered species that could occur in the vicinity of the BSA (CDFW 2016, 2020a). The database queries and official species list letters are included in Appendix M). Specifically, database searches were conducted using the USGS 7.5-minute quadrangle map for the BSA (Beverly Hills) and the adjacent quadrangles (Topanga, Canoga Park, Van Nuys, Burbank, Hollywood, Inglewood, and Venice).

Habitat evaluations for threatened and endangered species were conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for either alternative was thoroughly walked and surveyed for potential habitat, and observations of wildlife species were made. The species listed in Table 2.20-1 were evaluated for their potential to occur within the BSA; the results are also provided in the table and discussed in the *Results* section below.

### **2.20.2.2 Results – Threatened or Endangered Species and Designated Critical Habitat within the BSA**

The IPaC list, NMFS species list, and the CNDDDB database query indicate that the potential exists for 47 species that have been listed as threatened or endangered, or proposed for listing, occur within the project region (see Table 2.20-1 for the species and their potential to occur within the BSA).

The BSA is dominated by urban development, consisting of roadways, public parks and beaches, landscaped areas, residences, and public access areas. The potential for threatened and endangered species to occur in the BSA is limited primarily by the availability of suitable habitat (e.g., ornamental vegetation, bridge hinges and wooden pier rafters, highly disturbed sandy beach along the west side of the BSA).

Habitat for 40 of the listed species that occur within the region is absent from the BSA; therefore, there is no potential for these species to occur within the BSA (Table 2.20-1). Seven species of threatened or endangered plants and sea turtles could occur in the sandy beach habitat; however, the sandy beach habitat within the BSA is not suitable for these species because of the lack of foredune or vegetated areas and high levels of human disturbance. Therefore, these species are not expected to occur (Table 2.20-1). The four plant and three sea turtle species are discussed below.

According to the IPaC resource list (USFWS 2020b), there is no federally designated critical habitat within the BSA.

### **Discussion of Threatened and Endangered Plants**

According to literature reviews and field studies, three plant species could use sandy beach habitat, which is present within the BSA: Ventura marsh milk-vetch (*Astragalus pycnostachyus* var. *lanosissimus*), salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*), and beach spectaclepod (*Dithyrea maritima*). However, the sandy beach habitat within the BSA is heavily disturbed by human use, and there are no suitable foredune or vegetated areas. Therefore, the BSA provides unsuitable habitat for these species, which are not expected to occur within the BSA.

### **Discussion of Sea Turtles**

Olive ridley sea turtle (*Lepidochelys olivacea*), leatherback sea turtle (*Dermochelys coriacea*), East Pacific green sea turtle (*Chelonia mydas*), and North Pacific loggerhead sea turtle (*Caretta caretta*) nest on sandy beaches along the various coastlines of the Pacific (e.g., in Japan, the Hawaiian islands, U.S. Pacific islands, Mexico, Honduras, Guatemala, El Salvador, Nicaragua, Costa Rica). However, none of these species are known to nest on beaches in California. Sandy beach habitat is present along the western edge of the BSA; however, the BSA is outside the known breeding range of these species. Therefore, these species are not expected to occur within the BSA.

### **2.20.3 Environmental Consequences**

Because there is no potential for listed species (federal or state) or species proposed for listing to occur within the BSA and project area, no species are anticipated to be affected, either directly or indirectly, by Build Alternatives 1 and 2 (LPA). In addition, no federally designated critical habitat is present with the BSA; therefore, critical habitat would not be affected by either of the build alternatives. The project would have no effect on the threatened and endangered species included in the USFWS IPaC lists dated March 16, 2016, nor on species included in the NMFS species list provided in the NMFS letter dated March 18, 2020 (a copy of the letter is included in Appendix M). Therefore, no impacts on threatened or endangered species would occur under CEQA or NEPA.

### **2.20.4 Avoidance, Minimization, and/or Mitigation Measures**

Because there is no potential for threatened species, endangered species, or species proposed for listing to occur within the BSA, no avoidance, minimization, or mitigation measures are proposed.

**Table 2.20-1. Federal and State Listed Species Potentially Occurring or Known to Occur in the Region and  
Their Potential to Occur within the Biological Study Area**

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<b>Plants</b>					
<i>Arenaria paludicola</i> marsh sandwort	FE/SE/1B.1/S1	Marshes and swamps. Typically located in dense mats of emergent marsh vegetation. Elevation range: 485–3,965 feet. Blooms: May–August.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Astragalus brauntonii</i> Braunton's milk-vetch	FE/-/1B.1/S2	Closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grassland. Often in recent burns or disturbed areas on gravelly clay soils that overlie granite or limestone. Elevation range: 10–2,075 feet. Blooms: January–August.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i> Ventura Marsh milk-vetch	FE/SE/1B.1/S1	Coastal salt marsh, coastal dune, and coastal scrub. Typically located within reach of high tide; protected by barrier beaches and near seeps on sandy bluffs. Elevation range: 1–115 feet. Blooms: June–October.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	FE/SE/1B.1/S1	Coastal prairie. Located on moist sandy depressions within coastal prairie. Elevation range: 1–165 feet. Blooms: March–May.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Berberis nevini</i> Nevin's barberry	FE/SE/1B.1/S1	Chaparral, cismontane woodland, coastal scrub, and riparian scrub. Located on sandy or gravelly soils. Elevation range: 800–2,500 feet. Blooms: March–June.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.



<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's- beak	FE/SE/1B.2/S1	Coastal dune, marsh and swamp, coastal salt marsh, and wetland. Located on the higher zones of salt marshes. Elevation range: 0–100 feet. Blooms: May–October.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Chorizanthe parryi</i> var. <i>fernandina</i> San Fernando Valley spineflower	FPT/SE/1B.1/S1	Coastal scrub and valley and foothill grassland. Located on sandy soils. Elevation range: 490–4,000 feet. Blooms: April–July.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Dithyrea maritima</i> beach spectaclepod	-/ST/1B.1/S1	Coastal dunes and coastal scrub. Located at seashores on sand dunes and in sandy places near the shore. Elevation range: 10–165 feet. Blooms: March–May.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur. Project activities are not anticipated in or immediately adjacent to this habitat.
<i>Dodecahema leptoceras</i> slender-horned spineflower	FE/SE/1B.1/S1	Chaparral, cismontane woodland, and costal alluvial fan scrub in sandy soils. Elevation range: 600–2,200 feet. Blooms: April–June.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Dudleya cymosa</i> ssp. <i>ovatifolia</i> Santa Monica dudleya	FT/-/1B.1/S1	Chaparral and coastal scrub. Located in canyons on sedimentary conglomerates on primarily north-facing slopes. Elevation range: 485–5,430 feet. Blooms: March–June.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	FE/SE/1B.1/S1	Coastal scrub, valley and foothill grassland, and vernal pools on mesic soils. Elevation range: 60–1,800 feet. Blooms: April–June.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<i>Nasturtium gambelii</i> Gambell's watercress	FE/ST/1B.1/S1	Brackish and freshwater marshes and swamps. Located on lake and stream margins at or immediately above the water line. Elevation range: 15–1,075 feet. Blooms: April–October.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Navarretia fossalis</i> spreading navarretia	FT/-/1B.1/S2	Vernal pools, chenopod scrub, marshes, swamps, and playas. Located on hardpan soils and in swales, depressions, and pools. Elevation range: 95–4,225 feet. Blooms: April–June.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Orcuttia californica</i> California Orcutt grass	FE/SE/1B.1/S1	Vernal pools. Elevation range: 45–2,145 feet. Blooms: April–August.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<b>Terrestrial and Freshwater Animals</b>					
<i>Agelaius tricolor</i> tricolored blackbird (nesting colony)	-/ST, SSC/S1S2	Range is restricted to the Central Valley and surrounding foothills, coastal and some inland localities in Southern California, and scattered sites in Oregon, western Nevada, central Washington, and western coastal Baja California. Breeds in dense colonies and may travel several miles to secure food for nestlings. Males defend small territories within colonies and mate with one to four females. They are itinerant breeders, nesting more than once at different locations during the breeding season.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Anaxyrus californicus</i> arroyo toad	FE/SSC/S2S3	Inhabits washes, arroyos, sandy river banks, and riparian areas with willows, sycamores, oaks, and cottonwoods. Specialized habitat needs include exposed sandy stream sides with stable terraces for burrowing, with scattered	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
		vegetation for shelter, and areas with quiet water or pools that are free of predatory fish, with sandy or gravel bottoms without silt for breeding. Adults typically breed in overflow pools adjacent to the inflow channel of third-order or greater predator-free streams. Adult estivation sites are typically in stream terraces or uplands with friable soils, usually near active use areas but potentially more than 0.5 mile away. Young toads require moderately vegetated sandbars.			
<i>Brachtramphus marmoratus</i> marbled murrelet	(Nesting) FT/SE/S1	This small seabird nests in trees in older coastal forests throughout most of its range in North America and Asia. In summer, it forages primarily in bays, inlets, fjords (rarely in protected harbors), and open ocean within 3 miles of shore (in Alaska, 30 miles). Usually in widely dispersed concentrations (singles or pairs of birds). Seems to prefer shallow water, usually less than 200 feet deep, but known to forage in water up to 1,300 feet deep in fjords and 185 miles offshore, generally in areas with underwater sills, shelf edges, or strong tidal currents.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Branchinecta lynchi</i> vernal pool fairy shrimp	FT/-/S3	Restricted to seasonal vernal pools. Vernal pool fairy shrimp prefer cool water in pools with low to moderate levels of dissolved solids, are unpredictable, and are often short lived.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<i>Buteo swainsoni</i> Swainson's hawk	(Nesting) -/ST/S3	This slim relative of the common red-tailed hawk nests primarily in low-intensity agricultural areas of the western United States, migrating through Central America to Argentina and Brazil each fall and spring.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Charadrius alexandrinus nivosus</i> western snowy plover	(Nesting) FT/SSC/S2S3	Breeds primarily above the high-tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. In winter, found on beaches, which are used for nesting. Found on other beaches in man-made salt ponds and on estuarine sand and mud flats.	HA	No potential to occur	No suitable habitat is present within the BSA because of the very high level of human presence and use of the sandy beach habitat. This species is not expected to occur. No further constraint is present.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher	(Nesting) FE/SE/S1	Occurs in riparian habitats along rivers, streams, or other wetlands where dense growths of willows, arrowweed, buttonbush, tamarisk, Russian olive, or other plants are present, often with a scattered overstory of cottonwood, etc. Throughout their range, the riparian habitats tend to be rare, widely separated, and small and/or linear locales that are separated by vast expanses of arid lands. Nests in thickets of trees and shrubs, approximately 13 to 23 feet or more in height, with dense foliage approximately 13 feet above ground and often a high canopy cover percentage. Following modern changes in riparian plant communities, still nests in native vegetation where available but has been known to nest in thickets that are dominated by tamarisk	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
		and Russian olive. Virtually always nests near surface water or saturated soil.			
<i>Eucyclogobius newberryi</i> tidewater goby	FE/SSC/S3	Found primarily in waters of coastal lagoons, estuaries, and marshes. Historical range from mouth of the Smith River, Del Norte County, to northern San Diego County. The species is benthic in nature, living at the bottom of shallow, brackish bodies of water, such as lagoons and lower stream reaches where the water is fairly still but not stagnant. Prefers water with high dissolved oxygen levels and salinities of less than 10 parts per thousand.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Euphilotes battoides allyni</i> El Segundo blue butterfly	FE/-/S1	Historical range is the entire Los Angeles/ El Segundo sand dunes area and the northwestern Palos Verdes Peninsula in southwestern Los Angeles County. Currently distributed on three remnant habitats within its former range that support coastal sand dunes with coast buckwheat ( <i>Eriogonum parvifolium</i> ). All life stages depend on sea cliff buckwheat ( <i>Eriogonum parvifolium</i> ) and possibly loose sand.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Laterallus jamaicensis coturniculus</i> California black rail	-/ST, CFP/S1	Occurs in tidal salt marshes that are associated with a heavy growth of tule and pickleweed; also occurs in brackish marshes or freshwater marshes at low elevations. Restricted primarily to the San Francisco Bay, with smaller numbers in wetlands from the Salton Sea area to Arizona. This species has	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
		essentially disappeared from coastal wetlands in coastal Southern California and central California, although small populations have recently been discovered about 100 miles south of the U.S. border in northwestern Baja California.			
<i>Oncorhynchus mykiss irideus</i> Southern California steelhead	FE-/S1	Migrates into freshwater streams when sandbars breach during winter and spring rains. Occurs in coastal streams with water temperatures less than 60°F. Needs cool, clear water with instream cover. Spawns in tributaries to large rivers or streams that are directly connected to the ocean. Spawning habitat consists of gravel substrates that are free of excessive silt. Thrives when the dissolved oxygen concentration is at least 7 parts per million. In streams, deep low-velocity pools are important wintering habitats. Has been extirpated from at least 12 Southern California waterways (e.g., San Luis Rey River, San Mateo Creek, Santa Margarita River, Rincon Creek, Maria Ygnacio River, Los Angeles River, San Gabriel River, Santa Ana River, San Onofre Creek, San Juan Creek, San Diego River, Sweetwater River).	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	-/SE/S3	Locally common non-migratory resident of coastal salt marsh. It is an obligate breeder in middle-elevation salt marsh, nearly always characterized by pickleweed ( <i>Salicornia</i> spp.), either in tidal situations or nearby non-tidal alkaline flats. Although the majority of its subsistence stems from the saltmarsh and	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
		closely adjacent mudflat, individuals, particularly post-breeding birds, can be found foraging in a wide variety of habitats, including upper marsh, adjacent ruderal and ornamental vegetation, open beach and mudflat, and even dirt and gravel parking lots.			
<i>Perognathus longimembris pacificus</i> Pacific pocket mouse	FE/SSC/S1	An obligate resident of fine-grained sandy soils in coastal strands, coastal dunes, river and marine alluvium, and coastal sage scrub in proximity to the ocean. Has never been collected more than 2 miles from the coast or above 600 feet. It appears that occurrences are closely associated with loose or friable soils that permit burrowing.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Poliophtila californica</i> coastal California gnatcatcher	FT/SSC/S2	Generally prefers open sage scrub with California sagebrush ( <i>Artemisia californica</i> ) as a dominant or co-dominant species. Nest placement is typically in areas with less than a 40% slope gradient. Monogamous pairs tend to stay in the same locale. Both parents build the nest, incubate, and care for young.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Rallus longirostris levipes</i> light-footed Ridgway's rail	FE/SE, CFP/S1	This subspecies of the large and widespread clapper rail is restricted to the lower elevations of coastal marshes with active tidal flows and dense pickleweed and/or cordgrass thickets, from Port Hueneme in Ventura County (formerly to Santa Barbara County) south to Bahia de San Quintin, Baja California, Mexico. No substantial seasonal movements occur, although	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
		rare individuals wander away from known breeding locales.			
<i>Rana draytonii</i> California red-legged frog	FT/CSC/S2S3	Occurs locally on the western slopes of the Sierra Nevada and coastal foothills over the length of the state at elevations up to about 4,920 feet. Inhabits pools in streams, marshes, and ponds. Adults feed on a wide variety of aquatic prey and will move up to 1 mile through riparian communities under wet conditions, such as rainfall. They prefer shorelines with extensive vegetation and are vulnerable to the introduction of exotic competitors.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Riparia</i> bank swallow	(Nesting) -/ST/S2	Historically, this species bred interruptedly along the entire coast of California as well as in the Central Valley and Great Basin portions of the state. Currently, the species breeds only in Northern California, primarily in the Sacramento Valley and far northeastern portions of the state, with a few colonies in coastal counties from Monterey through Del Norte. This species is an uncommon to fairly common migrant in spring and fall at the Salton Sea in Riverside and Imperial Counties and at other large lakes and wetlands in desert regions. They are rare migrants elsewhere in California.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.



Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<i>Sternula antillarum browni</i> California least tern	(Nesting colony) FE/SE, CFP/S2	Nests on upper ocean beaches, open barren sites, and occasionally mudflats. Forages on adjacent surf line, estuaries, or in the open ocean. Colonies are located near the ocean shoreline (within 0.5 mile), typically on nearly flat, loose sandy substrates with lightly scattered short vegetation and debris, although some colonies have been located on hard-packed surfaces, even unused asphalt. Colony sites must provide access to the shoreline for juveniles and must be relatively free of predators or the colony may abandon breeding efforts before completion.	HA	No potential to occur	No suitable habitat is present within the BSA because of the very high level of human presence and use of the sandy beach habitat. This species is not expected to occur. No further constraint is present.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	FE/-/S1S2	Found in shallow depressions that contain a soil layer of clay hard pan. Discontinuously distributed along coastal Southern California and northern Baja California.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Vireo bellii pusillus</i> least Bell's vireo	(Nesting) FE/SE/S2	Nesting elevation ranges from below sea level to at least 4,100 feet. The subspecies winters in southern Baja California. Selects dense vegetation low in riparian zones for nesting.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<b>Marine Animals</b>					
<i>Arctocephalus townsendi</i> Guadalupe fur seal	FT/ST, CFP/-/S1	Breeds at coastal rocky habitats and caves. Breeding grounds almost entirely on Guadalupe Island, Mexico. Also known to breed on San Benito Archipelago, Mexico; a small number occur at San Miguel Island, California.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Balaenoptera borealis</i> sei whale	FE/-/-/-	Pelagic cetacean.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

<b>Scientific Name Common Name</b>	<b>Status<sup>a</sup> FED/STATE/ CNPS/CNDDB</b>	<b>General Habitat Description</b>	<b>Specific Habitat<sup>b</sup> Present/Absent</b>	<b>Potential to Occur within the BSA</b>	<b>Rationale</b>
<i>Balaenoptera musculus</i> blue whale	FE/-/-/-	Pelagic cetacean; also found coastally when feeding and calving.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Balaenoptera physalus</i> fin whale	FE/-/-/-	Pelagic cetacean.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Caretta</i> North Pacific loggerhead sea turtle	FE/-/-/-	Pelagic sea turtle. Nests on sandy beaches; only known Pacific nesting location is in Japan.	HP	Not expected to occur	Sandy beach habitat is present within the BSA; however, the BSA is outside the known nesting range for this species. This species is not expected to occur. No further constraint is present.
<i>Chelonia mydas</i> East Pacific green sea turtle	FT/-/-/S1	Primarily near-shore sea turtle that can also be found in coastal areas, including bays and estuaries. Nests on sandy beaches. Nesting locations found in the Hawaiian Islands and U.S. Pacific island territories.	HP	Not expected to occur	Sandy beach habitat is present within the BSA; however, the BSA is outside the known nesting range for this species. This species is not expected to occur. No further constraint is present.
<i>Dermochelys coriacea</i> leatherback sea turtle	FE/-/-/-	Pelagic sea turtle. Nesting beaches are found only in tropical latitudes.	HP	Not expected to occur	Sandy beach habitat is present within the BSA; however, the BSA is outside the known nesting range for this species. This species is not expected to occur. No further constraint is present.
<i>Eubalaena japonica</i> North Pacific right whale	FE/-/-/-	Pelagic cetacean. Nursery areas in shallow coastal waters.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Haliotis cracherodii</i> black abalone	FE/-/-/S1S2	Found in coastal intertidal and subtidal waters at depths to approximately 18 feet.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Haliotis sorenseni</i> white abalone	FE/-/-/S1	Found in coastal subtidal waters at depths of 50 to 180 feet.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<i>Lepidochelys olivacea</i> olive ridley sea turtle	FT/-/-/-	Pelagic sea turtle that is occasionally found in coastal areas, including bays and estuaries. Nests on sandy beaches. Only known Pacific nesting locations are in Mexico, Honduras, El Salvador, Nicaragua, and Costa Rica.	HP	Not expected to occur	Sandy beach habitat is present within the BSA; however, the BSA is outside the known nesting range for this species. This species is not expected to occur. No further constraint is present.
<i>Megaptera novaeangliae</i> humpback whale	FE/-/-/-	Cetacean found primarily in coastal waters.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Orcinus orca</i> southern resident killer whale	FE/-/-/-	Cetacean found primarily in coastal waters.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.
<i>Physeter macrocephalus</i> sperm whale	FE/-/-/-	Pelagic cetacean.	HA	No potential to occur	No suitable habitat is present within the BSA. This species is not expected to occur. No further constraint is present.

<sup>a</sup> **Status Codes****Federal**

FE = Federally Listed; Endangered  
 FT = Federally Listed; Threatened  
 FPE = Federally Proposed  
 Endangered  
 FPT = Federally Proposed  
 Threatened  
 FC = Federal Candidate for listing  
 FD = Delisted

**State**

SE = State Listed; Endangered  
 ST = State Listed; Threatened  
 SPE = State Proposed; Endangered  
 SPT = State Proposed; Threatened  
 SC = State Candidate for Listing  
 SR = Rare (Native Plant Protection Act)  
 SSC = California Species of Special Concern  
 CFP = California Fully Protected Species  
 SD = Delisted

**CNPS Rare Plant Rank (CRPR)**

1A = Plants presumed extirpated in California and either rare or extinct elsewhere  
 1B = Plants rare, threatened, or endangered in California and elsewhere  
 2A = Plants presumed extirpated in California but more common elsewhere  
 2B = Plants rare, threatened, or endangered in California but more common elsewhere  
 3 = Plants about which we need more information (Review List)  
 4 = Plants of limited distribution (Watch List)

**CNPS CRPR Threat Codes**

0.1 = Seriously endangered in California  
 0.2 = Fairly endangered in California  
 0.3 = Not very threatened in California

Scientific Name Common Name	Status <sup>a</sup> FED/STATE/ CNPS/CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/Absent	Potential to Occur within the BSA	Rationale
<p><b>CNDDB State Rank</b></p> <p>Note: The California Natural Diversity Database (CNDDB) uses the same ranking methodology that was originally developed by the Nature Conservancy, which is now maintained and was recently revised by NatureServe. The state rank (S-rank) refers to the imperilment status only within California's state boundaries. It is a reflection of the overall status of an element through its state range. The state rank represents a letter-plus-number score that reflects a combination of rarity, threat, and trend factors, with weighting being heavier on rarity than the other two factors.</p> <p>S1 = Critically Imperiled (critically imperiled in the state because of extreme rarity [often five or fewer] or because of factors such as very steep declines that make it especially vulnerable to extirpation from the state).</p> <p>S2 = Imperiled (imperiled in the state because of rarity related to a very restricted range, very few populations [often 20 or fewer], steep declines, or other factors that make it very vulnerable to extirpation from the state).</p> <p>S3 = Vulnerable (vulnerable in the state because of a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors that make it vulnerable to extirpation from the state).</p> <p>S4 = Apparently Secure (uncommon but not rare in the state; some cause for long-term concern because of declines or other factors).</p> <p>S5 = Secure (common, widespread, and abundant in the state).</p> <p>SH = All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists.</p> <p>SX = All sites are extirpated.</p> <p>Uncertainty about the rank of an element is expressed in two major ways:</p> <ul style="list-style-type: none"> <li>• By expressing the ranks as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3).</li> <li>• By adding a "?" to the rank (e.g., S2? represents more certainty than S2S3 but less certainty than S2).</li> </ul> <p><sup>b</sup> <b>Habitat Presence/Absence Codes</b></p> <p>HP = Habitat is or may be present within project footprint. The species may be present.</p> <p>HA = No habitat present, and no further work needed.</p> <p>Gray Highlight = No potential to occur in the BSA, and not further evaluated.</p>					

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## **2.21 Essential Fish Habitat**

This section discusses the EFH evaluation of areas within the BSA. Both regulatory requirements associated with EFH and potential project impacts are discussed.

### **2.21.1 Regulatory Setting**

#### **2.21.1.1 Federal Regulations**

##### **Magnuson-Stevens Fishery Conservation and Management Act**

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 was established to conserve and manage fishery resources that are found off the coast of the U.S., as well as anadromous species and continental shelf fishery resources, by exercising 1) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and 2) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, continental shelf fishery resources, and fishery resources in special areas. The act requires federal agencies such as FHWA, as well as Caltrans through NEPA assignment, to consult with the Secretary of Commerce (specifically, NMFS) regarding any action or proposed action authorized, funded, or undertaken by that agency that may adversely affect designated EFH. Federal agencies may use existing consultation and environmental review procedures, such as FESA Section 7 biological assessments, to satisfy consultation requirements.

### **2.21.2 Affected Environment**

#### **2.21.2.1 Study Methods**

Prior to site evaluations, an official NMFS species list, including designated EFH, was requested on January 12, 2016; September 22, 2017; and March 18, 2020; it was obtained by Caltrans on January 13, 2016; September 22, 2017; and March 18, 2020 (NMFS 2020). The official letters concerning species are included in Appendix M. Specifically, searches were conducted using the USGS 7.5-minute quadrangle map for the BSA (Beverly Hills). The designated EFH's included in the NMFS list are shown in Table 2.21-1. These were evaluated for their potential to occur within the BSA.

#### **2.21.2.2 Results – Essential Fish Habitat within the BSA**

Although the BSA is included on the Beverly Hills USGS 7.5-minute quadrangle map, which contains designated EFH for groundfish and coastal pelagics (Table 2.21-1), the BSA does not contain marine habitat. Therefore, there is no designated EFH within the BSA.

### **2.21.3 Environmental Consequences**

Because there is no designated EFH within the BSA and project area, no EFH is anticipated to be affected, either directly or indirectly, by Build Alternatives 1 and 2 (LPA). The project would have no effect on designated EFH included in the NMFS letter dated March 18, 2020 (a copy of the letter is included in Appendix M). No impacts on EFH would occur under CEQA or NEPA.

**Table 2.21-1. Essential Fish Habitat in the Region and Potential to Occur within the BSA**

Essential Fish Habitat	Status <sup>a</sup> FED/STATE/ CNPS/ CNDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/ Absent	Potential to Occur within the BSA	Rationale
Essential Fish Habitat – Groundfish	-/-/-	Marine and estuarine waters defined by NMFS and Pacific States Fisheries Management Council as essential fish habitat for groundfish.	HA	Not present	No marine habitat is present within the BSA. No further constraint is present.
Essential Fish Habitat – Coastal Pelagics	-/-/-	Marine and estuarine waters defined by the Pacific States Fisheries Management Council as essential fish habitat for coastal pelagic species.	HA	Not present	No marine habitat is present within the BSA. No further constraint is present.

**<sup>a</sup> Status Codes**

Federal	State	CNPS Rare Plant Rank (CRPR)	CNPS CRPR Threat Codes
FE = Federally Listed; Endangered	SE = State Listed; Endangered	1A = Plants presumed extirpated in California and either rare or extinct elsewhere	0.1 = Seriously endangered in California
FT = Federally Listed; Threatened	ST = State Listed; Threatened	1B = Plants rare, threatened, or endangered in California and elsewhere	0.2 = Fairly endangered in California
FPE = Federally Proposed Endangered	SPE = State Proposed; Endangered	2A = Plants presumed extirpated in California but more common elsewhere	0.3 = Not very threatened in California
FPT = Federally Proposed Threatened	SPT = State Proposed; Threatened	2B = Plants rare, threatened, or endangered in California but more common elsewhere	
FC = Federal Candidate for listing	SC = State Candidate for Listing	3 = Plants about which we need more information (Review List)	
FD = Delisted	SR = Rare (Native Plant Protection Act)	4 = Plants of limited distribution (Watch List)	
	SSC = California Species of Special Concern		
	CFP = California Fully Protected Species		
	SD = Delisted		

Essential Fish Habitat	Status <sup>a</sup> FED/STATE/ CNPS/ CNDDDB	General Habitat Description	Specific Habitat <sup>b</sup> Present/ Absent	Potential to Occur within the BSA	Rationale
<p><b>CNDDDB State Rank</b></p> <p>Note: The California Natural Diversity Database (CNDDDB) uses the same ranking methodology that was originally developed by the Nature Conservancy, which is now maintained and was recently revised by NatureServe. The state rank (S-rank) refers to the imperilment status only within California's state boundaries. It is a reflection of the overall status of an element through its state range. The state rank represents a letter-plus-number score that reflects a combination of rarity, threat, and trend factors, with weighting being heavier on rarity than the other two factors.</p> <p>S1 = Critically Imperiled (critically imperiled in the state because of extreme rarity [often five or fewer] or because of factors such as very steep declines that make it especially vulnerable to extirpation from the state).</p> <p>S2 = Imperiled (imperiled in the state because of rarity related to a very restricted range, very few populations [often 20 or fewer], steep declines, or other factors that make it very vulnerable to extirpation from the state).</p> <p>S3 = Vulnerable (vulnerable in the state because of a restricted range, relatively few populations [often 80 or fewer], recent and widespread declines, or other factors that make it vulnerable to extirpation from the state).</p> <p>S4 = Apparently Secure (uncommon but not rare in the state; some cause for long-term concern because of declines or other factors).</p> <p>S5 = Secure (common, widespread, and abundant in the state).</p> <p>SH = All sites are historical; the element has not been seen for at least 20 years, but suitable habitat still exists.</p> <p>SX = All sites are extirpated.</p> <p>Uncertainty about the rank of an element is expressed in two major ways:</p> <ul style="list-style-type: none"> <li>• By expressing the ranks as a range of values (e.g., S2S3 means the rank is somewhere between S2 and S3).</li> <li>• By adding a "?" to the rank (e.g., S2? represents more certainty than S2S3 but less certainty than S2).</li> </ul> <p><b><sup>b</sup>Habitat Presence/Absence Codes</b></p> <p>HP = Habitat is or may be present within project footprint. The species may be present.</p> <p>HA = No habitat present, and no further work needed.</p> <p>Gray Highlight = No potential to occur in the BSA, and not further evaluated.</p>					



#### **2.21.4 Avoidance, Minimization, and/or Mitigation Measures**

Because there is no designated EFH within the BSA or the project area of either build alternative, no avoidance, minimization, or mitigation measures are proposed.

## **2.22 Invasive Species**

This section discusses the potential for occurrences of invasive species within the BSA as well as risks related to the spread of invasive species. Regulatory requirements associated with invasive species and potential project impacts are also discussed.

### **2.22.1 Regulatory Setting**

#### **2.22.1.1 Federal Regulations**

##### **Executive Order 13112 – Invasive Species**

On February 3, 1999, President Clinton signed EO 13112, which required federal agencies to combat the introduction or spread of invasive species in the United States. The order defined invasive species as “any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” FHWA guidance, issued August 10, 1999, directs the use of the state’s invasive species list, maintained by the California Invasive Plant Council (Cal-IPC), to define the invasive species that must be considered as part of the NEPA analysis for a proposed project. Under the EO, federal agencies cannot authorize, fund, or carry out actions that are believed likely to cause or promote the introduction or spread of invasive species in the U.S. or elsewhere unless all reasonable measures to minimize the risk of harm have been analyzed and considered. This means that federal-aid and federal highway program funds cannot be used for construction, revegetation, landscaping, or mitigation activities that introduce or spread known invasive species.

#### **2.22.1.2 State Regulations**

##### **California Food and Agricultural Code Sections 7700 through 7708 – Invasive Species Council of California**

Sections 7700 through 7708 of the California Food and Agricultural Code establish the Invasive Species Council of California (ISCC). The purpose of the council is to coordinate a comprehensive effort for preventing the introduction of invasive species in the state. The ISCC advises state agencies within their respective authorities regarding how to facilitate coordinated, complementary, and cost-effective control or eradication of invasive species that have entered the state or are already established in California. The ISCC created the California Invasive Species Advisory Council (CISAC), which developed a list of invasive species that have reasonable likelihood of entering the state or have entered California and for which an exclusion, detection, eradication, control, or management action by the state might be taken.

## 2.22.2 Affected Environment

### 2.22.2.1 Study Methods

Prior to site evaluations, the California Invasive Species List and Scorecards (CISAC 2020), the Cal-IPC Inventory (Cal-IPC 2020), and the Calflora Electronic Inventory (CNPS 2020) were queried regarding invasive plant species that could occur in the vicinity of the BSA (see the 2016 NESMI included in Appendix M of this EIR/EA for the summary report and the 2020 NESMI addendum)—specifically, within coastal strand habitat (e.g., sandy beaches) in Los Angeles County. The invasive plant species reviewed for the proposed project are listed in Table 2.22-1, below.

Habitat evaluations for invasive plant species were conducted on-site within the BSA on February 15, 2016, by ICF biologist Shannon Crossen. During the site visit, the entire BSA for either alternative was thoroughly walked and surveyed for all potential habitats.

### 2.22.2.2 Results – Invasive Plant Species within the BSA

The BSA comprises highly developed urban and residential areas; it does not contain sensitive habitat. Highly disturbed sandy beach habitat is present along the west edge of the BSA. Vegetation within the BSA includes maintained ornamental and landscape vegetation. Within the project areas of Build Alternatives 1 and 2 (LPA), ornamental vegetation may contain species that are considered invasive, but such vegetation is well contained in landscaped areas, including parkways, planters, and areas between the walking paths in Palisades Park.

According to the database reviews, six invasive plants that require sandy beach habitat are known to occur in Los Angeles County. The plants that were evaluated for habitat suitability and potential to occur within the BSA were European beachgrass (*Ammophila arenaria*), sea fig (*Carpobrotus chilensis*), Uruguayan pampas grass (*Cortaderia selloana*), common (crystalline) iceplant (*Mesembryanthemum crystallinum*), small-flowered iceplant (*Mesembryanthemum nodiflorum*), and New Zealand spinach (*Tetragonia tetragonioides*) (Table 2.22-1). Although sandy beach habitat exists within the BSA, the habitat is highly disturbed by human use. No vegetation or vegetated foredune areas exist that would be suitable. Therefore, the six plant species are not expected to occur in the BSA. No focused studies for invasive plants were conducted because of the lack of suitable habitat and the highly disturbed and developed nature of the sandy beach habitat as well as the characteristics of the ornamental and landscaped vegetation within the BSA.

### 2.22.3 Environmental Consequences

Because of the developed and maintained nature of the project areas for Build Alternatives 1 and 2 (LPA), the lack of invasive species in natural areas within the BSA, and lack of sensitive or native habitats adjacent to the BSA, the build alternatives' potential to spread or introduce invasive plant or animal species or cause or exacerbate an invasion would be minimal. Neither of the build alternatives is expected to introduce or spread invasive plant or animal species, and compliance with EO 13112 would be ensured with implementation of measures BIO-6 and BIO-7.

**Table 2.22-1. Invasive Species in the Region and Potential to Occur within the Biological Study Area**

Scientific Name Common Name	Included on ICSS List?	Cal-IPC Rating <sup>a</sup>	General Habitat Description	Specific Habitat <sup>b</sup> Present/ Absent	Potential to Occur within the BSA	Rationale
<i>Ammophila arenaria</i> European beachgrass	Yes	High	Perennial grass found in coastal strand habitat, usually in non-wetlands. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.
<i>Carpobrotus chilensis</i> sea fig	No	Moderate	Perennial herb found in coastal strand and coastal sage scrub habitats, occasionally found in wetlands. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.
<i>Cortaderia selloana</i> Uruguayan pampas grass	Yes	High	Escaped perennial grass cultivar found in coastal strand habitat, usually in non-wetlands. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.
<i>Mesembryanthemum crystallinum</i> common (crystalline) iceplant	Yes	Moderate	Annual herb plant found in coastal strand, coastal sage scrub, and wetland-riparian habitats. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.
<i>Mesembryanthemum nodiflorum</i> small-flowered iceplant	No	Limited	Annual herb plant found in coastal strand, coastal sage scrub, and wetland-riparian habitats. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.
<i>Tetragonia tetragonioides</i> New Zealand spinach	No	Limited	Annual herb plant found in coastal strand and coastal salt marsh habitats. Has been naturalized in the wild.	HP	Not expected to occur	Sandy beach habitat is present along the western edge of the BSA, but there is no suitable vegetation or vegetated foredune habitat. Therefore, this species is not expected to occur.

Scientific Name Common Name	Included on ICSS List?	Cal-IPC Rating <sup>a</sup>	General Habitat Description	Specific Habitat <sup>b</sup> Present/ Absent	Potential to Occur within the BSA	Rationale
<sup>a</sup> . Cal-IPC Rating: <ul style="list-style-type: none"> <li>• High – These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.</li> <li>• Moderate – These species have substantial and apparent, but generally not severe, ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent on ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.</li> <li>• Limited – These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.</li> <li>• Alert – An alert is listed on species with high or moderate impacts that has limited distribution in California but may have the potential to spread much farther.</li> <li>• Watch – These species have been assessed as posing a high risk of becoming invasive in the future in California.</li> </ul> <sup>b</sup> . <b><u>Habitat Presence/Absence Codes</u></b> HP = Habitat is or may be present within project footprint. The species may be present. HA = No habitat present, and no further work needed. Gray Highlight = No potential to occur in the BSA, and not further evaluated.						

#### **2.22.4 Avoidance, Minimization, and/or Mitigation Measures**

In compliance with EO 13112, weed control would be performed to minimize the importation of nonnative plant material during and after construction. Eradication strategies would be employed should an invasion occur. Measures to address issues related to the abatement and eradication of invasive species would be included in the project design and contract specifications. These measures include BIO-6 and BIO-7, below.

**BIO-6.** Construction equipment shall be inspected and cleaned prior to mobilization to the project site to minimize the importation of nonnative plant material. Eradication strategies (e.g., weed control) shall be implemented should an invasion of nonnative plant species occur.

**BIO-7.** After construction, species with a high or moderate rating on Cal-IPC's California Invasive Plant Inventory, including any Cal-IPC-listed species of ice plant, shall not be planted in any revegetated areas.

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## 2.23 Cumulative Impacts

### 2.23.1 Affected Environment

**Resource Study Area:** The resource study area (RSA) for biological resources includes the proposed project footprints for both build alternatives and a 2-mile buffer. This RSA includes adjacent, contiguous, and similar land use types as well as potential habitat/land cover that species may use for feeding, breeding, shelter, or movement.

The current function of the RSA for biological resources is limited because of the intensely developed nature of the area and lack of natural habitats, except for the highly disturbed sandy beach habitat. The RSA is intensely dominated by residential and commercial developments, and its beaches experience high levels of traffic from beachgoers year-round. The RSA has no natural vegetation communities or habitats that serve as live-in habitat for native species in less developed landscapes. The RSA does provide habitat for species that are adapted to human development, encroachment, and disturbance. Typically, these species are not considered rare or imperiled and are not species of concern. The RSA could also provide habitat that would be used by individual species while moving through the area (e.g., palm trees might provide shelter for bats and birds).

### 2.23.2 Environmental Consequences

Because the project footprints as well as the impacts associated with Build Alternatives 1 and 2 (LPA) would be similar.

**Potential Direct and Indirect Impacts of the Proposed Project:** The potential exists for direct and indirect disturbance in the form of tree/vegetation removal, bridge demolition, and noise associated with construction activities. This could result in direct harm for bats or birds while nesting/roosting within ornamental vegetation or on structures or nest/roost abandonment associated with disturbance and noise. Because of the developed and disturbed nature of the proposed project area, the potential for impacts to occur is considered low. Because equipment from outside the RSA may be imported for use during construction, there is some potential for the introduction of invasive plant species, albeit very low with respect to spread because of the developed nature of the area. Nonetheless, avoidance and minimization measures **BIO-1** through **BIO-7** would be implemented to ensure all impacts on biological resources would be avoided and minimized to the maximum extent practicable.

**Potential Direct and Indirect Impacts of Other Reasonably Foreseeable Actions:** Because of the intensely developed and human-dominated landscape in the RSA, many additional development projects are in the planning stages. Reasonably foreseeable developments in the RSA consist primarily of residential and commercial developments (office and retail) in already-developed and disturbed areas. These projects have the potential to directly and indirectly affect resources similar to those that would be affected by the proposed project (e.g., the impacts on bats and nesting birds described above) because of vegetation/tree removal as well as the low level of risk associated with the introduction of invasive species and their spread. Like the proposed project, because of the developed and disturbed nature of the RSA, the potential for impacts on biological resources from reasonably foreseeable actions is considered to be low.



**Cumulative Impacts Potential:** The potential for cumulative impacts on biological resources in the RSA is considered low. These impacts would include construction activities that could result in direct harm or disturbance for nesting birds and roosting bats as well as the low level of risk associated with the introduction of invasive species and their spread. The cumulative effect of the direct and indirect impacts listed above is unlikely to be adverse because any potential impacts resulting from the proposed actions would be considered less than adverse, considering the highly developed and disturbed nature of the RSA, which limits its function to provide habitat for wildlife. In addition, implementation of avoidance and minimization measures BIO-1 through BIO-7 would ensure that any potential effects on biological resources that may be present would be avoided and/or minimized. Therefore, cumulative impacts on biological resources are not considered significant under CEQA or adverse under NEPA.

### **2.23.3 Avoidance, Minimization, and/or Mitigation Measures**

No cumulative impacts are anticipated, and no avoidance, minimization, and/or mitigation measures for cumulative effects are proposed.

# **Chapter 3** California Environmental Quality Act (CEQA) Evaluation

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## **3.1 Determining Significance under CEQA**

The project is subject to federal, as well as the City of Santa Monica (City) and state, environmental review requirements because the City proposes the use of federal funds from the Federal Highway Administration (FHWA) and/or the project requires an approval from FHWA. Project documentation, therefore, has been prepared in compliance with both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). The City is the project proponent and the lead agency under CEQA. FHWA's responsibility for environmental review, consultation, and any other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the California Department of Transportation (Caltrans) pursuant to 23 United States Code Section 327 and the Memorandum of Understanding dated December 23, 2016, and executed by FHWA and Caltrans.

One of the primary differences between NEPA and CEQA is the way significance is determined. Under NEPA, significance is used to determine whether an environmental impact statement (EIS), or a lower level of documentation, will be required. NEPA requires that an EIS be prepared when the proposed federal action (project) *as a whole* has the potential to “significantly affect the quality of the human environment.” The determination of significance is based on context and intensity. Some impacts determined to be significant under CEQA may not be of sufficient magnitude to be determined significant under NEPA. Under NEPA, once a decision is made regarding the need for an EIS, it is the magnitude of the impact that is evaluated, and no judgment of its individual significance is deemed important for the text. NEPA does not require that a determination of significant impacts be stated in the environmental documents.

CEQA, on the other hand, does require Caltrans to identify each “significant effect on the environment” resulting from the project and ways to mitigate each significant effect. If the project may have a significant effect on any environmental resource, then an environmental impact report (EIR) must be prepared. Each and every significant effect on the environment must be disclosed in the EIR and mitigated if feasible. In addition, the CEQA Guidelines list a number of “mandatory findings of significance,” which also require the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA. This chapter discusses the effects of this project and CEQA significance.

## **3.1 Effects of the Proposed Project**

Questions on the CEQA Environmental Checklist (Appendix A) have been addressed, based on the discussions in Chapter 2 and below. The discussions below apply to Build Alternatives 1 and 2 (LPA), unless specifically noted otherwise. For a comparative discussion of the impacts of the No-Build Alternative, please refer to Chapter 2.

### **3.1.1 No Effects**

The checklist provided in Appendix A and the analysis of the impacts provided in Chapter 2 of this document were used to reach a finding of “no impact” under CEQA for the following topics (with applicable subtopics noted):

- Agriculture and Forestry Resources
- Hazards and Hazardous Materials (impacts on nearby schools and airports, wildland fires)
- Land Use and Planning
- Mineral Resources
- Noise (public airports and private airstrips)
- Population and Housing
- Public Services (schools, parks, and other public facilities)
- Transportation/Traffic (changes in air traffic patterns/traffic)

### **3.1.2 Less-than-Significant Effects of the Proposed Project**

This section focuses on the analysis of Build Alternatives 1 and 2 (LPA). For a comparative discussion of the impacts of the No-Build Alternative, please refer to Chapter 2. For the following topics, impacts were found to be less than significant; an analysis and explanations are provided in either Chapter 2 or in a brief statement in the CEQA checklist in Appendix A.

- Aesthetics
- Biological Resources
- Climate Change
- Energy
- Geology/Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Noise (construction)
- Recreation
- Transportation/Traffic (hazardous design features/incompatible uses, conflicts with public transit/pedestrian/bicycle policies/plans/programs)
- Utilities and Service Systems

### 3.1.3 Potentially Significant Environmental Impacts of the Proposed Project

This section focuses on the analysis of Build Alternatives 1 and 2 (LPA). For a comparative discussion of the impacts of the No-Build Alternative, please refer to Chapter 2. Potentially significant impacts, before mitigation, would occur with Build Alternatives 1 and 2 (LPA) in the following resource areas:

- Air Quality
- Cultural Resources
- Geology and Soils (seismic ground shaking, liquefaction, landslides)
- Hazards and Hazardous Materials (hazardous material transport/use/disposal, release of hazardous materials, emergency response and evacuation plans)
- Hydrology and Water Quality (water quality standards/waste discharge requirements, stormwater runoff)
- Public Services (fire and police protection)
- Transportation/Traffic (inadequate emergency access)
- Mandatory Findings of Significance

## 3.2 CEQA Checklist

This checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects will indicate no impact on a particular resource. A “no impact” answer in the last column reflects this determination. The words “significant” and “significance,” as used throughout the following checklist, are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage a thoughtful assessment of impacts and do not represent thresholds of significance.

Project features, which can include both design elements of the project and standardized measures that are applied to all or most Caltrans projects, such as best management practices (BMPs) and measures included in the Standard Plans and Specifications or as Standard Special Provisions, are considered to be an integral part of the project and have been considered prior to any significance determinations documented below; see Chapters 1 and 2 for a detailed discussion of these features. The annotations to this checklist are summaries of information contained in Chapter 2, providing the reader with the rationale for the significance determinations; for a more detailed discussion regarding the nature and extent of impacts, please see Chapter 2. This checklist incorporates by reference the information contained in Chapters 1 and 2.

The following topics, which are commonly included in EIRs, have been omitted from the following checklist discussion because they involve resources that would not be significantly affected by the project and/or do not occur within the project area. These include agriculture and forest resources as well as mineral resources.



### 3.2.1 Aesthetics

Except as provided in Public Resources Code Section 21099, would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.1.1 CEQA Significance Determinations for Aesthetics

##### a) No Impact

The proposed project elements would not affect sightlines to other scenic resources and would maintain available scenic vistas, including public views to the beach and ocean. As a result of the proposed project's general similarity with respect to the existing alignment, as well as design elements that would essentially match existing design elements, the project would be consistent with existing visual character. Please refer to Section 2.6, *Visuals/Aesthetics*, of this recirculated environmental impact report/environmental assessment (EIR/EA).

##### b) Less than Significant with Mitigation Incorporated

As discussed in the *Visual/Aesthetics* section in Chapter 2, the proposed project would be in proximity to multiple historic properties, particularly the Hippodrome; viewer sensitivity in the area is considered high. However, introduction of the built visible elements associated with the proposed project would not damage, destroy, or otherwise interfere with, affect, or diminish the Hippodrome's historic significance under National Register of Historic Places (NRHP) Criterion A by altering its contributing elements, such as its massing, setback on the pier, arched windows, octagonal towers, decorative finials, exposed wood beams, and roof. For more information on the proposed project's potential impacts on cultural and historic resources, please see Section 2.7, *Cultural Resources*, of this recirculated draft EIR/EA. As such, the proposed project is not expected to substantially alter overall visual quality in the project area. In addition, existing lampposts would be retained, repainted, and reinstalled, thereby maintaining this visual element.

**c) No Impact**

The proposed project is in an urban setting and would not conflict with applicable zoning and other regulations governing scenic quality.

**d) No Impact**

The proposed project would not include new lighting elements in an area in which there is currently no lighting. The proposed project would replace all existing lighting in-kind.

### 3.2.2 Air Quality

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations:				
Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is in non-attainment status under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### 3.2.2.1 CEQA Significance Determinations for Air Quality

##### a, b, c) Less than Significant

The proposed project would occur in the South Coast Air Basin (Basin), within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). The SCAQMD is the primary agency responsible for writing the Air Quality Management Plan (AQMP), which is developed in cooperation with the Southern California Association of Governments (SCAG), local governments, and the private sector. The AQMP provides the blueprint for meeting state and federal ambient air quality standards.

This project is not a capacity-increasing transportation project. It would have no impact on traffic volumes or circulation and would generate a less-than-significant amount of pollutants during construction because of the temporary nature of construction. The proposed project is included in SCAG's most recent Regional Transportation Plan (RTP) and Regional Transportation Improvement Program (RTIP), both of which were found to be conforming (see the *Air Quality* section of Chapter 2). Therefore, the proposed project would not conflict with the AQMP, violate any air quality standard, result in a net increase in any criteria pollutant, or expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant. No mitigation is required.

With respect to construction-period and operational air quality emissions from projects in the vicinity and within the Basin, SCAQMD has developed strategies to reduce criteria pollutant emissions, as outlined in the AQMP, pursuant to federal Clean Air Act mandates. As such, the projects within the Basin, including all nearby current and reasonably foreseeable projects, would comply with SCAQMD Rule 403 requirements, among other SCAQMD requirements. In addition, projects would comply with adopted AQMP emissions control measures. Per



SCAQMD rules and mandates, as well as the CEQA requirement that significant impacts be mitigated to the extent feasible, these same requirements (i.e., Rule 403 compliance, implementation of all feasible mitigation measures, compliance with adopted AQMP emissions control measures) would be imposed on all construction projects in the Basin. Because compliance with SCAQMD strategies and rules would be mandated to mitigate the cumulative air quality impacts of the proposed project as well as other projects and development in the Basin, the proposed project would not be expected to result in a substantial contribution toward a cumulatively considerable air quality impact. For additional information, please refer to Section 2.13, *Air Quality*, of this recirculated EIR/EA.

**d) Less than Significant with Mitigation Incorporated**

Temporary construction activities could generate fugitive dust from the operation of construction equipment. The project would comply with construction standards adopted by the SCAQMD as well as Caltrans standardized procedures for minimizing air pollutants during construction. In addition, implementation of Mitigation Measure AQ-1 would reduce impacts to less than significant.

### 3.2.3 Biological Resources

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, or National Oceanic and Atmospheric Administration (NOAA) Fisheries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marshes, vernal pools, coastal areas, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.3.1 CEQA Significance Determinations for Biological Resources

##### a, b) Less than Significant

As stated in the *Biological Environment* section, the potential exists for listed species to occur within the biological study area (BSA) for the project. However, the project would not affect riparian habitat or other sensitive natural communities. In addition, the mitigation measures listed in Section 3.3.1 would minimize any potential impacts on sensitive biological resources that would occur because of construction. Once operational, the project would not result in impacts on biological resources. Therefore, no impact would occur, and no mitigation is required.

The Heal the Bay Aquarium, which is adjacent to the project site, houses numerous locally indigenous aquatic species. None of the species contained within the aquarium are covered under the California Endangered Species Act (CESA). (A species census list was provided to the City on November 3, 2021 [Appendix N].) With the inclusion of the Adjacent Structures Monitoring Plan (CR-3), no significant vibrational impacts on the aquarium are anticipated to occur. In addition, per the CEQA Guidelines, there would be no significant impact on species' populations, considering their home in an artificial environment, which is not a part of a functional population. Therefore, no impacts on species housed within the aquarium environment are anticipated.

**c) No Impact**

Though there are intertidal areas within the BSA and no federal or state jurisdictional waters within the project area; therefore, no waters or wetlands would be affected by the proposed Build Alternatives 1 and 2 (LPA).

**d) No Impact**

The project would not affect any migratory wildlife corridors or the movement of any native resident or migratory fish or wildlife species. The project would not impede the use of native wildlife nursery sites.

**e) No Impact**

The project would not conflict with any local policies or ordinances protecting biological resources, including the City's Tree Ordinance.

**f) No Impact**

The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

### 3.2.4 Cultural Resources

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.2.4.1 CEQA Significance Determinations for Cultural Resources

##### a) Less than Significant with Mitigation Incorporate

As discussed in Section 2.7, *Cultural Resources*, a Pier Sign Preservation Plan (Preservation Plan) would be required under both build alternatives to mitigate potential impacts on the Pier Sign. The Pier Sign would retain its integrity of materials and workmanship with incorporation of the Preservation Plan, as described in CR-4. The Preservation Plan requires the Historic Preservation Specialist to document the Pier Sign prior to construction to record existing conditions and details of the Pier Sign's character-defining features and components (e.g., neon gas tubing, electrical wiring, metal connections, painted surfaces), with copies to be attached to the Pier Sign Report, as described in the Preservation Plan (see Appendix N). Potential adverse impacts on the Pier Sign resulting from physical damage during construction would be minimized through implementation of the Preservation Plan. Potential adverse impacts resulting from alterations to extend the support columns as well as anticipated repair and maintenance actions would be minimized through implementation of the Preservation Plan as a non-standard condition. With mitigation measure CR-3 implemented, impacts on the Pier Sign would be less than significant.

Under both build alternatives, a structural modification of the Santa Monica Pier would occur; however, with the inclusion of mitigation measure CR-5, neither build alternative would alter any of the characteristics that qualify it for designation as a City of Santa Monica landmark in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. The pier's landmark designation sets forth the level of review required for different types of alterations to the pier deck and structures placed on it. Pier Design Guidelines have also been established to maintain the pier's historic character. The City of Santa Monica's Landmarks Commission would follow established procedures through the "Certificate of Appropriateness" process and confirm conformance with the Standards and the Pier Design Guidelines. With the measures stated above, impacts on the Santa Monica Pier would be less than significant.

Under either alternative, demolition of the existing Pier Bridge would result in a construction impact on the eligible Pier District due to the removal of this contributing resource. Its replacement would have substantially the same slope, alignment, and open massing, based on conceptual diagrams for both build alternatives. Under mitigation measure CR-6, the new bridge design would follow guidance and direction provided in the Pier District Design Guidelines. After measures described in CR-6 are implemented, operational impacts would be less than significant.

**b and c)      Less than Significant**

As discussed in Section 2.7, *Cultural Resources*, no known archaeological resources occur within the Project Area. However, impacts that would occur to unknown resources and previously undiscovered human remains could occur and would be potentially significant, therefore mitigation measures CR-1 and CR-2 and are described in detail in Section 2.7 of this EIR/EA.

### 3.2.5 Energy

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Result in a potentially significant environmental impact due to the wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.2.5.1 CEQA Significance Determinations for Energy

##### a, b) Less than Significant

With adherence to the increasingly stringent building and vehicle efficiency standards from multiple regulatory entities, as well as implementation of the proposed project's design features, such as the use of energy-efficient lighting, the proposed project would not contribute to a cumulative impact related to the wasteful or inefficient use of energy. In addition, because of the nature of the project, a non-capacity increasing, in-kind bridge replacement project, it would not result in a potential cumulative impact. Impacts related to energy would be less than significant; therefore, no avoidance, minimization, or mitigation measures are required at this time.

### 3.2.6 Geology and Soils

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismically related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or a collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils that would be incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Directly or indirectly destroy a unique paleontological resource or site or a unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.2.6.1 CEQA Significance Determinations for Geology and Soils

##### a[ii], a[iii], b, c, and f) Less than Significant

As stated in Section 2.10, *Geology, Soils, Seismicity, and Topography*, the proposed project would have a beneficial effect because the structurally deficient bridge would be replaced with one that would comply with the current, more stringent code requirements for seismic safety as well as applicable provisions of the latest Caltrans seismic and bridge-design codes. Therefore, it is not expected that construction or operation of the Build Alternatives 1 and 2 (LPA) would expose people or structures to a substantial increased risk of loss, injury, or death.

**a[i], a[iv], d, e)      No Impact**

No adverse impacts related to geology, soils, seismicity, and/or topography are anticipated as a result of the proposed project, and no avoidance, minimization, and/or mitigation measures are proposed. Please refer to Section 2.10, *Geology, Soils, Seismicity, and Topography*, of this document for further discussion.



### 3.2.7 Greenhouse Gas Emissions

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.7.1 CEQA Significance Determinations for Greenhouse Gas Emissions

##### a) Less than Significant

Regional and localized construction-period impacts would be less than significant under CEQA. Therefore, no significant impact would occur, and no mitigation is required.

##### b) No Impact

Because of the nature of the project, a non-capacity increasing, in-kind bridge replacement project, it would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases. Therefore, no impact would occur, and no mitigation is required.

### 3.2.8 Hazards and Hazardous Materials

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.8.1 CEQA Significance Determinations for Hazards and Hazardous Materials

##### a, b) Less than Significant

Construction for the Build Alternatives 1 and 2 (LPA) would involve the routine handling and transport of hazardous materials such as fuels, solvents, paints, oils, etc. The handling of hazardous materials would be in compliance with applicable regulations, such as the Resource Conservation and Recovery Act of 1976 (RCRA), Occupational Safety and Health Act, etc., as discussed in 2.7.1.2, *Regulatory Setting*. Compliance with the aforementioned regulations, in combination with construction BMPs developed as part of a site-specific Stormwater Pollution Prevention Plan (SWPPP), would ensure that hazardous materials would be handled properly. Furthermore, the types of hazardous materials that would be handled during construction would be types that are typically used in construction projects and would not include acutely hazardous materials.

**c) No Impact**

There are no schools within 0.25 mile of the project location. Santa Monica High School is the closest, located approximately 0.30 mile to the east. Therefore, no impact would occur, and no mitigation is required.

**d) Less than Significant**

Research conducted during the records review for the 2020 addendum to the May 2016 Initial Site Assessment (ISA) identified six hazardous materials listings within the project footprint, all of which were identified as having low potential with respect to affecting the project. Seven nearby sites were identified in the 2020 addendum to the May 2016 ISA as having some potential to affect implementation of the proposed project. Taking into consideration the environmental history of the sites, their regulatory status, and their location in relation to the proposed project, the ISA determined that the likelihood for the proposed project to be affected by these sites is low.

**e) No Impact**

This project is not within an airport land use plan or the vicinity of a public or private airport. The closest airport to the project is Santa Monica Airport, located approximately 2.06 miles to the east. Therefore, no impact would occur, and no mitigation is required.

**f) Less than Significant Impact with Mitigation Incorporated**

Emergency access to the project site could be affected by construction. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles, thereby resulting in a potentially significant impact. To minimize the potential for this impact, the City would implement Mitigation Measure UES-2, as described in Section 2.12, *Hazardous Waste and Materials*, to ensure adequate emergency access, maintain traffic flow, and maintain adequate response times for the Santa Monica Police Department (SMPD) and Santa Monica Fire Department (SMFD). As such, construction activities associated with the proposed project are not expected to significantly affect emergency medical services, police protection, or fire protection provided by the SMPD and SMFD in the project area or implementation of the City of Santa Monica Multi-Hazard Functional Emergency Plan.

**g) No Impact**

Wildland fires are not a concern because Santa Monica Pier is in a highly developed area of Santa Monica. No wildland areas are in its vicinity. Therefore, no impact would occur, and no mitigation is required.

### 3.2.9 Hydrology and Water Quality

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water or groundwater quality?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project could impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or the addition of impervious surfaces, in a manner that would:				
(i) Result in substantial erosion or siltation on- or off-site,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site,	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
(iii) Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect floodflows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) In flood hazard, tsunami, or seiche zones, risk a release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.2.9.1 CEQA Significance Determinations for Hydrology and Water Quality

##### a) Less than Significant with Mitigation Incorporated

As stated in Section 2.9, *Water Quality and Stormwater Runoff*, short-term or temporary construction impacts on water quality, including biological, physical/chemical, and human-use impacts, would have the potential to occur during demolition of the bridge and construction of the new bridge. The proposed project would disturb approximately 3.5 acres of land during construction activities, which would include establishing and using construction staging areas, stockpiling materials, operating heavy construction equipment (e.g., graders, excavators), widening roads, or providing new drainage facilities. Water quality impacts would be associated with these land-disturbing activities.

The proposed project would comply with the Construction General Permit, which would require implementation of a SWPPP to address erosion and sedimentation issues at the project site during construction. Compliance with the Construction General Permit (Minimization Measure WQ-1) and implementation of temporary BMPs, consistent with the SWPPP (Minimization Measure WQ-2), would reduce the potential for such impacts. BMPs are designed to maintain construction areas so that pollutants in stormflows are not carried off-site and into the drainage system. Temporary BMPs, such as silt fences, straw wattles, sediment traps, gravel sandbag barriers, or other effective sediment and erosion control BMPs, would be implemented to control runoff and erosion during construction. Implementation of erosion and sediment control BMPs would prevent substantial levels of soil erosion and sedimentation from occurring, thereby protecting water quality. With implementation of Minimization Measures WQ-1 and WQ-2, the proposed project would not violate state water quality standards or otherwise substantially degrade water quality. Impacts would be less than significant during construction. Minimization measures are discussed in Section 2.9, *Water Quality and Stormwater Runoff*.

**b) Less than Significant**

Under Build Alternatives 1 and 2 (LPA), groundwater is expected to be encountered during the drilling of pile foundations. However, these temporary construction activities would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Therefore, impacts would be less than significant, and no mitigation is required.

**c) Less than Significant**

As stated in Section 2.8, *Hydrology and Floodplain*, of this recirculated EIR/EA, impacts related to hydrology would not occur under the two build alternatives because the project would not alter or change existing hydrologic conditions during either construction or operation. The existing drainage facilities would be modified, as necessary, to accommodate both proposed Build Alternatives 1 and 2 (LPA). For example, storm drains may be adjusted or relocated, and additional catch basins may be used to capture stormwater. However, overall storm drain patterns would remain unchanged. Stormwater would continue to be collected and routed to the sanitary sewer system for treatment prior to discharge into Santa Monica Bay. As a result, the proposed project would not discharge additional pollutants, and impacts would be less than significant. Therefore, mitigation measures are not required.

During construction, stormwater discharges could negatively affect the chemical, biological, or physical properties of downstream receiving waters. The construction site, if unprotected, could erode at a rate in excess of 100 times the natural background rate of erosion. Implementation of Minimization Measures WQ-1 and WQ-2 would minimize soil erosion and sedimentation associated with exposed soils, thereby protecting water quality. Impacts would be less than significant with Minimization Measures WQ-1 and WQ-2 incorporated.

**d) Less than Significant**

Build Alternatives 1 and 2 (LPA) would be within a 100-year floodplain hazard area as well as a tsunami inundation area. However, historically, California has suffered little tsunami damage. Predictive models of distant tsunamis indicate that wave heights of 10 to 17 feet are exceeded, on

average, once every 500 years at Santa Monica Bay (McCulloch 1985). Furthermore, under Build Alternatives 1 and 2 (LPA), the elevation of Santa Monica Pier Bridge (Pier Bridge) would reduce the potential for damage from tsunami-generated waves. Impacts are anticipated to be less than significant; therefore, mitigation measures are not required.

**e) Less than Significant**

With implementation of Minimization Measure WQ-1, the proposed project would not violate state water quality standards or otherwise substantially degrade water quality. Impacts would be less than significant during operation. Minimization Measure WQ-1 is discussed in Section 2.9, *Water Quality and Stormwater Runoff*, of this recirculated EIR/EA.

**3.2.10 Land Use and Planning**

<b>Would the project:</b>	<b>Significant and Unavoidable Impact</b>	<b>Less than Significant with Mitigation Incorporated</b>	<b>Less-than-Significant Impact</b>	<b>No Impact</b>
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**3.2.10.1 CEQA Significance Determinations for Land Use and Planning****a, b) No Impact**

Construction of the proposed project would result in replacement of the structurally deficient Pier Bridge. The new bridge would not physically divide an established community. As stated in Section 2.1 *Land Use*, the proposed project would improve the existing access link between Santa Monica Pier and the downtown/civic center neighborhoods of the city. In addition, the proposed project would be consistent with the City of Santa Monica General Plan and the SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). The project would not be a catalyst for the conversion of existing land uses or the introduction of new land uses to the project area. Therefore, the project would not cause direct or indirect impacts on land use or contribute to a cumulative impact on land use; therefore, no impacts to land use would result.

### 3.2.11 Noise

Would the project result in:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) The generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) The generation of excessive ground-borne vibration or ground-borne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.11.1 CEQA Significance Determinations for Noise

CEQA requires a strictly baseline versus build analysis to assess whether a proposed project will have a noise impact. If a proposed project is determined to have a significant noise impact under CEQA, then CEQA dictates that mitigation measures must be incorporated into the project unless those measures are not feasible.

#### Noise Fundamentals

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is unwanted, disturbing, or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

The following sections provide an explanation of key concepts and acoustical terms used in the analysis of environmental and community noise.

#### Frequency, Amplitude, and Decibels

Continuous sound can be described by its frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch; a high-frequency sound is perceived as high-pitched. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of



250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source correlates with the loudness of that source. The amplitude of a sound is typically described in terms of sound pressure level (SPL), also referred to simply as the sound level. The SPL refers to the root-mean-square (rms)<sup>2</sup> pressure of a sound wave and is measured in units called microPascals (μPa). One μPa is approximately one hundred-billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to over 100,000,000 μPa. Because of this large range of values, sound is rarely expressed in terms of μPa. Instead, a logarithmic scale is used to describe the SPL in terms of decibels, abbreviated dB. The decibel is a logarithmic unit that describes the ratio of the actual sound pressure to a reference pressure (20 μPa is the standard reference pressure level for acoustical measurements in air). Specifically, an SPL, in decibels, is calculated as follows:

$$SPL = 20 \times \log_{10} \left( \frac{X}{20 \mu Pa} \right)$$

where X is the actual sound pressure and 20 μPa is the reference pressure. The threshold of hearing for young people is about 0 dB, which corresponds to 20 μPa.

### Decibel Calculations

Because decibels represent noise levels using a logarithmic scale, SPLs cannot be added, subtracted, or averaged through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one bulldozer produces an SPL of 80 dB, two bulldozers would not produce a combined sound level of 160 dB. Rather, they would combine to produce 83 dB. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition. The same decibel addition is used for A-weighted decibels described below.

Similarly, the arithmetic mean (average) of a series of noise levels does not accurately represent the overall average noise level. Instead, the values must be averaged using a linear scale before converting the result back into a logarithmic (dB) noise level. This method is typically referred to as calculating the “energy average” of the noise levels.

### A-Weighting

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

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude at higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted (i.e., adjusted), depending on human sensitivity to those frequencies. The resulting SPL is expressed in A-weighted decibels, or dBA.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted sound levels of those sounds. Table 3.2-1 describes typical A-weighted sound levels for various noise sources.

**Table 3.2-1. Typical A-Weighted Sound Levels**

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

## Noise Descriptors

Because sound levels can vary markedly over a short period of time, various descriptors or noise “metrics” have been developed to quantify environmental and community noise. These metrics generally describe either the average character of the noise or the statistical behavior of the variations in the noise level. Some of the most common metrics used to describe environmental noise, including those metrics used in this report, are described below.

Equivalent Sound Level (Leq) is the most common metric used to describe short-term average noise levels. Many noise sources produce levels that fluctuate over time; examples include mechanical equipment that cycles on and off, or construction work, which can vary sporadically. The Leq describes the average acoustical energy content of noise for an identified period of time, commonly 1 hour. Thus, the Leq of a time-varying noise and that of a steady noise are the same if they deliver the same acoustical energy over the duration of the exposure. For many noise sources, the Leq will vary, depending on the time of day. A prime example is traffic noise, which rises and falls, depending on the amount of traffic on a given street or freeway.

Maximum Sound Level (Lmax) and Minimum Sound Level (Lmin) refer to the maximum and minimum sound levels, respectively, that occur during the noise measurement period. More specifically, they describe the rms sound levels that correspond to the loudest and quietest 1-second intervals that occur during the measurement.

Percentile-Exceeded Sound Level (L<sub>xx</sub>) describes the sound level exceeded for a given percentage of a specified period. For example, the L50 is the sound level exceeded 50 percent of the time (such as 30 minutes per hour), and L25 is the sound level exceeded 25 percent of the time (such as 15 minutes per hour).

Community Noise Equivalent Level (CNEL) is a measure of the 24-hour average A-weighted noise level that is also time-weighted to “penalize” noise that occurs during the evening and nighttime hours when noise is generally recognized to be more disturbing (because people are trying to rest, relax, and sleep during these times). In order to account for this in calculating the CNEL, 5 dBA is added to the Leq during the evening hours of 7 p.m. to 10 p.m.; 10 dBA is added to the Leq during the nighttime hours of 10 p.m. to 7 a.m.; and the energy average is then taken for the whole 24-hour day.

Day-Night Sound Level (Ldn) is similar to the CNEL described above. Ldn is also a time-weighted average of the 24-hour A-weighted noise level. The only difference is that no “penalty” is applied to the evening hours of 7 p.m. to 10 p.m. 10 dBA is added to the Leq during the nighttime hours of 10 p.m. to 7 a.m., and the energy average is then taken for the whole 24-hour day.

It is noted that various federal, state, and local agencies have adopted CNEL or Ldn as the measure of community noise. While not identical, CNEL and Ldn are normally within 1 dBA of each other when measured in typical community environments, and many noise standards/regulations use the two interchangeably.

## Sound Propagation

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

**Geometric Spreading.** Sound from a single source (i.e., a “point” source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of approximately 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the

source of the sound appear to emanate from a line (i.e., a “line” source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation or decrease) from a line source is approximately 3 dBA doubling of distance.

**Ground Absorption.** Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of fewer than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically “hard” sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or “soft” sites (i.e., sites with an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

**Atmospheric Effects.** Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, may also have a major effect on sound. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas receptors upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface) as the warmer air at the higher elevation acts as a cap and causes a reflection of sound that is generated below at the ground level.

**Shielding by Natural or Human-Made Features.** A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and the frequency content of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

## Human Response to Noise

Noise can have a range of effects on people including hearing damage, sleep interference, speech interference, performance interference, physiological responses, and annoyance. Each of these is briefly described below:

**Hearing Damage.** A person exposed to high noise levels can suffer hearing damage, either gradual or traumatic. Gradual hearing loss occurs with repeated exposure to excessive noise levels and is most commonly associated with occupational noise exposures in heavy industry or other very noisy work environments. Traumatic hearing loss is caused by sudden exposure to an extremely high noise level, such as a gunshot or explosion at very close range. The potential for noise-induced hearing loss is not generally a concern in typical community noise environments. Noise levels in neighborhoods, and even in very noisy airport environments, are not sufficiently loud as to cause hearing loss.

**Sleep Interference.** Exposure to excessive noise levels at night has been shown to cause sleep disturbance. Sleep disturbance refers not only to awakening from sleep, but also to effects on the quality of sleep, such as altering the pattern and stages of sleep. Interior noise levels between 50 and 55 dBA Lmax during nighttime hours (10 p.m. to 7 a.m.) were found to result in sleep disturbance and annoyance (Nelson 1987).

**Speech Interference.** Speech interference can be a problem in any situation where clear communication is desired, but is often of particular concern in learning environments (such as schools) or situations where poor communication could jeopardize safety. Normal conversational speech is in the range of 60 to 65 dBA and any noise in this range or louder may interfere with speech. As background noise levels rise, the intelligibility of speech decreases and the listener will fail to recognize an increasing percentage of the words spoken. A speaker may raise his or her voice in an attempt to compensate for higher background noise levels, but this in turn can lead to vocal fatigue for the speaker.

**Performance Interference.** Excessive noise has been found to have various detrimental effects on human performance, including information processing, concentration, accuracy, reaction times, and academic performance. Intrusive noise from individual events can also cause distraction. These effects are of obvious concern for learning and work environments.

**Physiological Responses.** Noise has been shown to cause measurable physiological responses in humans, including changes in stress hormone levels, pulse rate, and blood pressure. The extent to which these responses cause harm or are signs of harm is not clearly defined, but they could contribute to stress-related diseases, such as hypertension, anxiety, and heart disease.

**Annoyance.** The subjective effects of annoyance, nuisance, and dissatisfaction are possibly the most difficult to quantify, and no completely satisfactory method exists to measure these effects. This difficulty arises primarily from differences in individual sensitivity and habituation to sound, which can vary widely from person to person. What one person considers tolerable can be unbearable to another of equal hearing acuity. An important tool in estimating the likelihood of annoyance due to a new sound is by comparing it to the existing baseline or “ambient” environment to which that person has adapted. In general, the more the level or tonal (frequency) variations of a sound exceed the previously existing ambient sound level or tonal quality, the less acceptable the new sound will be.

In most cases, effects from sounds typically found in the natural environment would be limited to annoyance or interference. Physiological effects and hearing loss would be more commonly associated with human-made noise, such as in an industrial or occupational setting.

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA. However, it is widely accepted that a doubling of sound energy, which results in a change of 3 dBA in a normal environment, is considered to be barely perceptible to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) resulting in a 3 dBA increase in sound would generally be barely detectable.

### Local Noise Regulations

The proposed project is in the city of Santa Monica. Noise standards are addressed in the *Noise Element of the General Plan for the City of Santa Monica* (City of Santa Monica 1992). The Noise Element sets forth goals, objectives, and policies to ensure land use compatibility with respect to noise. One objective is to ensure that excessive noise levels do not significantly affect citizens and noise-sensitive land uses within the city. Section 2.0 (*Issue Identification*) identifies transportation noise control as being an essential issue in the city. Additionally, Policy 1 (Section 5.0, *Policies and Implementation*) states that noise mitigation measures should be incorporated into the design of new roadway projects where necessary and feasible and that city, state, and federal noise standards should be enforced. The City's interior and exterior noise standards (Table 2 in the Noise Element) are reproduced here in Table 3.2-2.

Section 4.12.060 of the City's Municipal Code (Chapter 4.12, *Noise*) also contains noise standards that are used to limit noises from sources within the City's control. The City's exterior noise standards apply to all property within a designated noise zone during the times indicated, as reproduced in Table 3.2-3.

Noise from construction activities is regulated by the City's Municipal Code. Section 4.12.110 restricts construction noise by placing limits on the hours of construction operations and the noise levels produced during certain periods of time. Construction is not allowed within the city between the hours of 6:00 p.m. and 8:00 a.m. Monday through Friday, between 5:00 p.m. and 9:00 a.m. on Saturday, or at any time on Sunday, except for emergency work or by variance. During the permitted hours, construction noise is limited to the levels specified in Table 3.2-3 plus 20 dBA or a maximum instantaneous noise levels (Lmax) to exceed the limits specified in Table 3.2-3 plus 40 dBA. Furthermore, any construction noise that exceeds the levels specified in Table 3.2-3 must occur between the hours of 10 a.m. and 3 p.m., Monday through Friday.

Section 4.12.070 of the City's Municipal Code also regulates vibration. The City prohibits the creation of vibration that is perceptible. According to the code, the threshold of perception is presumed to be a velocity level of 0.05 inch per second rms. However, vibration from construction and moving vehicles is exempted from the threshold.

**Table 3.2-2. Interior and Exterior Noise Standards**

Proposed Land Use Categories		Design Standard CNEL	
Categories	Uses	Indoor <sup>1</sup>	Outdoor Open Space <sup>2</sup>
Residential	Single-family residence, duplex, multiple-family dwelling	45 <sup>3</sup>	65
	Mobile home	—	65 <sup>4</sup>
Commercial	Mobile home, transient lodging	45	65 <sup>5</sup>
Industrial	Commercial retail, bank, restaurant	55	—
Institutional	Office building, research and development facility, professional office, city office building	50	—
	Amphitheater, concert hall, auditorium, meeting hall	45	—
	Gymnasium (multipurpose)	50	—
	Sports club	55	—
	Manufacturing, warehousing, wholesale facilities, or utilities	65	—
	Movie theater	45	—
Institutional	Hospital, school classroom	45	65
	Church, library	45	—
Open Space	Parks	—	65
<b>Notes:</b> CNEL = Community Noise Equivalent Level. <sup>1</sup> Indoor environment, excluding bathrooms, toilets, closets, corridors. <sup>2</sup> Outdoor environment limited to private yard of a single-family residence; multi-yard private patio or balcony greater than 6 feet in depth and not a required emergency fire exit, as defined in the Uniform Building Code (UBC); mobile home park; hospital patio; park picnic area; school playground; hotel and motel recreation area. <sup>3</sup> Noise level requirement with windows closed. Mechanical ventilation system or other means of natural ventilation shall be provided per Chapter 12, Section 1205, of the UBC. <sup>4</sup> Exterior noise level should be such that interior noise level will not exceed 45 CNEL. <sup>5</sup> Except those areas affected by aircraft noise.			

Source: City of Santa Monica 1992, Table 2.

**Table 3.2-3. Interior and Exterior Noise Standards**

Noise Zone	Time Interval	Allowable Leq	
		15-minute continuous measurement period	5-minute continuous measurement period
I - Residential	Monday–Friday		
	10 p.m. to 7 a.m.:	50 dBA	55 dBA
	7 a.m. to 10 p.m.:	60 dBA	65 dBA
	Saturday and Sunday		
	10 p.m. to 8 a.m.:	50 dBA	55 dBA
	8 a.m. to 10 p.m.:	60 dBA	65 dBA
II - Commercial	All days of the week		
	10 p.m. to 7 a.m.:	60 dBA	65 dBA
	7 a.m. to 10 p.m.:	65 dBA	70 dBA
III - Manufacturing/ Industrial	Anytime	70 dBA	75 dBA

**Notes:**

<sup>1</sup> For each Noise Zone, the allowable exterior equivalent noise level shall be reduced by five dBA for impulsive or simple tone noise, or for noises consisting of speech or music. If the ambient noise level exceeds the allowable exterior noise level standard, the ambient noise level shall be the standard.

<sup>2</sup> Except as provided for in this Chapter, no person shall at any location within the City create any noise or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes:

- The equivalent noise level to exceed the noise standards established in subsection (a) of this Section for the noise zone where the measurement is taken; or
- A maximum instantaneous A-weighted, slow sound pressure level to exceed the decibel limits established in subsection (a) of this Section for the noise zone where the measurement is taken plus twenty dBA for any period of time.

<sup>3</sup> If any portion of a parcel is located within one hundred feet of a noise zone with higher noise standards as compared to the noise standards for the noise zone in which the parcel is located, then the maximum allowable exterior equivalent noise level for the entire parcel shall be the average of the noise standards of the two noise zones. However, any noise level measurement must be taken at least twenty-five feet from the parcel line of the source of the noise.

<sup>4</sup> Construction activity shall be subject to the noise standards set forth in Section 4.12.110.

<sup>5</sup> The noise standards established in Section 6.116.030 shall apply on the Third Street Promenade and the Transit Mall.

## Existing Setting

### Short-Term Measurements

Short-term measurements were taken at four sites: ST1, ST2, ST3, and ST4. Measurements ST1 and ST2 were taken on the pier east of the Loeff's Hippodrome, near the southeast corner of the pier in the Carousel Park area. Measurements ST3 and ST4 were taken immediately adjacent to the outdoor patio areas of the 1637 Appian Way apartment complex. These measurements were conducted to represent the closest residential uses and other noise-sensitive locations to the project site. For measurement ST3, the microphone was elevated 15 feet off the ground to represent a nearby second-story patio; all other measurements were taken at a height of 5 feet. Measurements were taken to represent land uses that may be affected by increased construction or operational noise from the proposed project. The closest residential land use is represented by measurement location ST3 and the closest commercial land use is represented by measurement location ST1.

One Larson Davis Model LxT sound-level meter (SLM) and one Larson Davis Model 831 SLM were used to conduct the short-term noise measurements. Both SLMs are classified as Type 1 (precision-grade) instruments, as defined in American National Standard Institute specification



S1.4-1984 and International Electrotechnical Commission publications 651 and 804. The meters were set to the “slow” time-response mode and the A-weighting filter network. To ensure accuracy, the calibration of the meters was checked before and after each of the measurements using a Larson Davis Model CAL200 calibrator.

During the field measurements, physical observations of the predominant noise sources were noted. For measurements ST1 and ST2, the primary noise sources were pedestrian foot traffic and commercial businesses at or near Santa Monica Pier along Ocean Front Walk. For measurements ST3 and ST4, the primary noise source was the nearby traffic on Appian Way, Seaside Terrace, and Ocean Avenue.

The results of the attended short-term sound level measurements are summarized in Table 3.2-4. As shown in the table, measured sound levels in the project area during daytime hours varied from 53.8 dBA Leq (at ST2) to 59.9 dBA Leq (ST4).

**Table 3.2-4. Short-term Sound-Level Measurement Results**

Receptor	Address	Land Uses/ Activity Category	Start Date/Time	Duration (minutes)	Leq (dBA)
ST1	200 Santa Monica Pier; seating area northeast of Soda Jerks Ice Cream Parlor	Outdoor Seating Area/E	09-01-2015/11:02 a.m.	11:11	55.6
			09-01-2015/11:29 a.m.	14:23	55.5
ST2	200 Santa Monica Pier; small playground/park area southwest of Lot 1 South parking	Park, Playground/C	09-01-2015/11:02 a.m.	18:18	54.8
			09-01-2015/11:29 a.m.	18:56	53.8
ST3	1637 Appian Way; near northwest corner of apartment complex	Residential/B	09-01-2015/12:54 p.m.	10:50	58.1
			09-01-2015/01:17 p.m.	11:40	57.1
ST4	1637 Appian Way; along Seaside Terrace	Residential/B	09-01-2015/12:54 p.m.	17:05	59.9
			09-01-2015/01:17 p.m.	12:13	58.6

## Long-Term Monitoring

A long-term measurement site was selected to capture the diurnal traffic noise patterns in the project area. Long-term monitoring (i.e., measurements taken at 5-minute intervals for approximately 25 hours) was conducted at one location (LT1) using a Piccolo SLM-P3. This is a Type 2 instrument, as defined in American National Standard Institute specification S1.4-1984 and International Electrotechnical Commission publications 651 and 804.

The long-term measurement location shown on Figure 3.2-1 was a fence near the property line on the northwest corner of the 1637 Appian Way apartment complex. This location was chosen for the following reasons: (1) it is in the area of the alignment that would be most directly



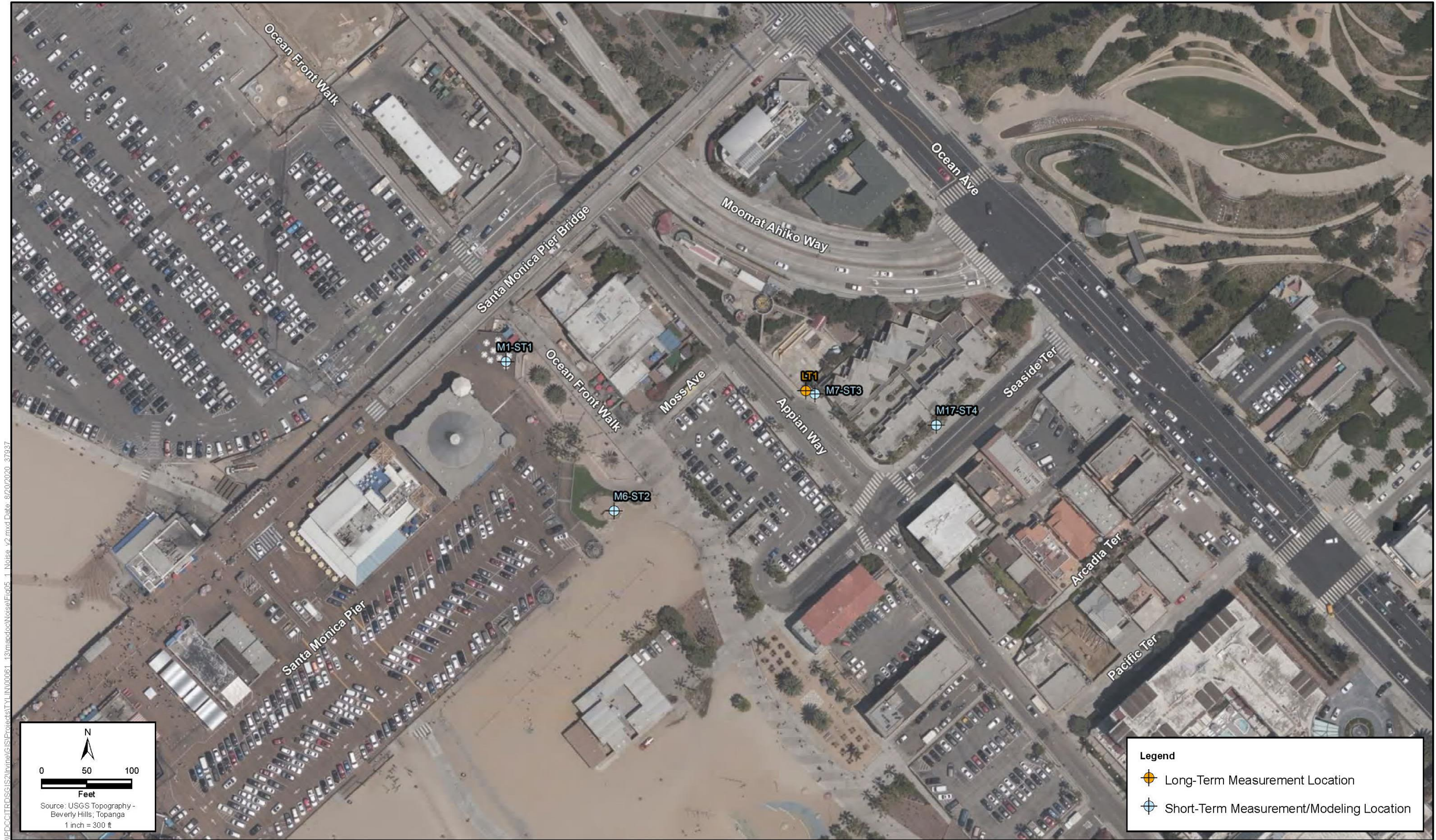


Figure 3.2-1. Noise Measurement and Modeling Locations



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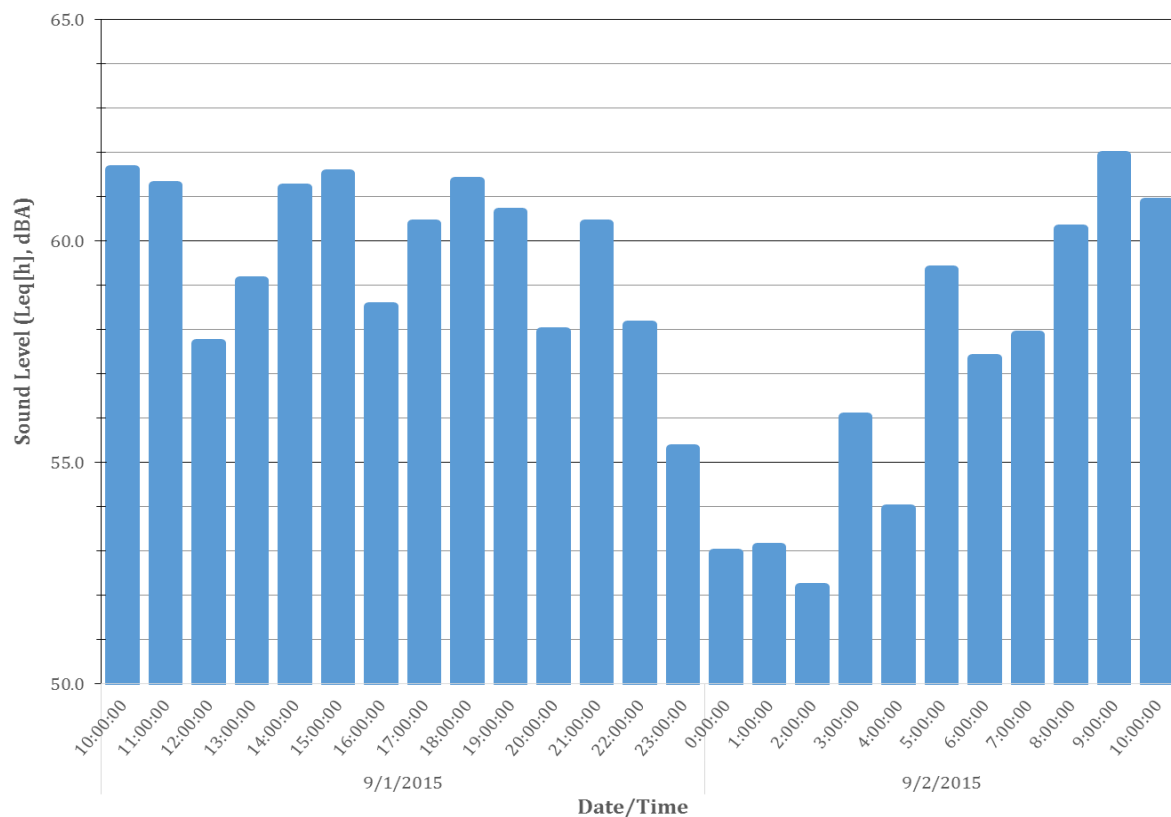
affected by the proposed project; (2) it was accessible, without requiring access to private property; and (3) it was obscured from public view, which helped to minimize the risk of theft or tampering.

The hourly noise monitoring data are provided in tabular and graphical formats in Table 3.2-5 and on Figure 3.2-2. According to the data, the worst noise hour was at 9:00 a.m., at 61.9 dBA Leq, while the quietest was at 2:00 a.m., at 52.2 dBA Leq.

**Table 3.2-5. Long-Term Monitoring at Site LT1**

Date	Beginning Hour	Hourly dBA (Leq[h])	Difference from Loudest Hour (dBA)
September 1, 2015	10:00:00	61.6	-0.3
	11:00:00	61.3	-0.7
	12:00:00	57.7	-4.2
	13:00:00	59.1	-2.8
	14:00:00	61.2	-0.7
	15:00:00	61.5	-0.4
	16:00:00	58.5	-3.4
	17:00:00	60.4	-1.6
	18:00:00	61.4	-0.6
	19:00:00	60.7	-1.3
	20:00:00	58.0	-4.0
	21:00:00	60.4	-1.5
	22:00:00	58.1	-3.8
	23:00:00	55.3	-6.6
September 2, 2015	0:00:00	53.0	-9.0
	1:00:00	53.1	-8.9
	2:00:00	52.2	-9.8
	3:00:00	56.0	-5.9
	4:00:00	54.0	-8.0
	5:00:00	59.4	-2.6
	6:00:00	57.4	-4.6
	7:00:00	57.9	-4.1
	8:00:00	60.3	-1.7
	<b>9:00:00</b>	<b>61.9</b>	<b>0.0</b>
	10:00:00	60.9	-1.1
Maximum: 61.9			
Minimum: 52.2			

Note: Worst noise hour is bolded.



**Figure 3.2-2. Long-Term Monitoring at Site LT1**

### **a) Less than Significant**

#### **Construction**

Two types of short-term noise impacts could occur during construction of the proposed project. First, construction workers who would commute to the site and trucks that would transport equipment and materials would incrementally increase noise levels on access roads. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 76 dBA), the contribution of construction traffic to ambient noise levels (such as the daily CNEL) would be low due to the infrequent traffic volume.

The second type of short-term noise impact is related to noise generated by construction equipment. Construction-related noise levels would typically be higher than existing ambient noise levels in the project area but would cease once construction of the project is completed. Project construction would generally occur between the hours of 8:00 a.m. and 6:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturdays.

Table 3.2-6 indicates that construction equipment is expected to generate maximum instantaneous (Lmax) noise levels ranging from 71 to 79 dBA at a distance of 100 feet. Average (Leq) construction noise levels would range from 67 to 75 dBA at a distance of 100 feet. The nearest residences are along Appian Way, approximately 330 feet from the nearest project

construction. Construction equipment used as part of the project would generate Lmax noise levels up to 79 dBA at 100 feet and would generate Leq noise levels up to 75 dBA at 100 feet. Noise levels of this magnitude would attenuate to approximately 69 dBA Lmax and 65 dBA Leq at the closest residence. City construction noise standards as specified in the City's Municipal Code specify that construction is exempt between the hours of 10 a.m. and 3 p.m., Monday through Friday, and cannot exceed 20 dBA Leq of 40 dBA Lmax over the threshold specified in Table 3.2-3 outside of the hours of 10 a.m. to 3 p.m. Noise levels from construction would not result in an increase beyond the thresholds outlined in the City's Municipal Code.

**Table 3.2-6. Construction Equipment Noise**

Equipment	Usage Factor	Lmax at 100 feet (dBA)	Leq at 100 feet (dBA)
Crawler Tractor	0.4	78	74
Excavator	0.4	75	71
Grader	0.4	79	75
Roller	0.2	74	67
Rubber Tired Loader	0.4	73	69
Scraper	0.4	78	74
Backhoe	0.4	72	68
Generator	0.5	75	72
Air Compressor	0.4	72	68
Plate Compactor	0.2	77	70
Pump	0.5	75	72
Paver	0.5	71	68

Source: FHWA 2006.

<sup>1</sup> Usage factor = percentage of time equipment is operating in noisiest mode while in use

<sup>2</sup> Leq values were calculated using Lmax and Usage Factor values and hard ground conditions.

The nearest commercial land uses to project construction are along Ocean Front Walk and near the intersection of Colorado Avenue and Moomat Ahiko Way. Commercial uses could be within 25 feet of construction activities. Noise level could be expected to be as high as 83 to 91 dBA (Lmax) and 79 to 87 dBA Leq at a distance of 25 feet. As specified in Section 4.12.110 of the Municipal Code, construction activities would be limited to the permitted hours of 10 a.m. to 3 p.m., Monday through Friday. If construction occurs outside of the 10 a.m. to 3 p.m. Monday through Friday time frame, it would not result in an increase beyond the thresholds outlined in the City's Municipal Code.

Project construction would result in a temporary increase in ambient noise levels in the project vicinity. Based on a rate of 6 dB per doubling of distance, construction noise levels are predicted to range from approximately 69 dBA Lmax and 65 dBA Leq at the closest residence. Short-term ambient measurements reported in Table 3.2-4 range from approximately 54 to 60 dBA Leq. Therefore, construction noise could cause increases of approximately 5 to 11 dBA. While noise increases in this range would be perceptible at the closest residence, the overall impacts would be less than significant provided the construction occurs during the prescribed daytime hours when construction is exempt or allowed by the provisions of the City's noise ordinance. At the closest

commercial land use, noise levels could be as high as 91 dBA Lmax or 87 dBA Leq. While these noise levels would dominate the environment they would not exceed the 40 dB instantaneous or 20 dB increase provided the construction occurs during the prescribed daytime hours when construction is exempt or allowed by the provisions of the City's noise ordinance. Therefore, the project would not result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance and would not result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity.

## Operations

The project would not result in any change to the existing traffic pattern or volumes relative to the existing and no build conditions. Therefore, while traffic volumes may incrementally increase over the existing traffic volumes, an increase in traffic noise would not be noticeable, as an increase of 3 dB would require a doubling of traffic volumes, and the proposed project would not result traffic in a doubling of traffic volumes.

Additionally, the proposed project would not include the design of any stationary noise sources such as heating, ventilating, and air conditioning systems or generators that would result in an increase in noise. As such, the operational impacts from the project would be less than significant.

### **b) Less than Significant**

Construction activities that would occur in the project area also have the potential to generate low levels of ground-borne vibration. However, vibration from construction and moving vehicles is exempted per Santa Monica Municipal Code Section 4.12.070. Nonetheless, as required by the City, the contractor would have to comply with the Adjacent Structure Monitoring Plan and Shoring Plan, described in *Design Features Common to Both Build Alternatives* in Section 2.7.2.3 and Caltrans Standard Specification 5-1.36, requiring the contractor to document cracks (photos and video) before, during, and after construction to ensure construction activities would not result in damage to adjacent historic buildings.

### **c) No Impact**

The closest airport is Santa Monica airport approximately 2 miles to the east. The project would not expose people living or working to excessive levels of noise. The 65 CNEL contour would not approach the project site. Impacts would not occur.

### 3.2.12 Population and Housing

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.12.1 CEQA Significance Determinations for Population and Housing

##### a) No Impact

The project area is an already densely populated urban area of Santa Monica. The proposed project would replace a heavily used transportation facility. As such, it is not anticipated to increase population growth in the vicinity of the project.

##### b) No Impact

Primary construction activities would not occur in residential areas, impair access, or otherwise adversely affect the functioning of a neighborhood. Furthermore, they would not disrupt the community. The proposed project would require temporary acquisitions of space leased by Heal the Bay. Through compliance with the Uniform Relocation Assistance and Real Property Acquisitions Policies Act of 1970, there would be no adverse effects under Build Alternatives 1 and 2 (LPA) as a result of these acquisitions. No effects related displacement would occur.



### 3.2.13 Public Services

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or a need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, to maintain acceptable service ratios, response times, or other performance objectives for the following public services:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.13.1 CEQA Significance Determinations for Public Services

##### a) No Impact

The project would replace the Pier Bridge with a similar structure; it would not require physical alteration of existing government facilities or the construction of new facilities. Therefore, no impact would occur, and no mitigation is required.

### 3.2.14 Recreation

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.14.1 CEQA Significance Determinations for Recreation

##### a, b) Less than Significant

Build Alternatives 1 and 2 (LPA) would require structural modification of the pier. To facilitate demolition of the bridge, portions of Santa Monica Pier would be removed. Portions of the pier deck would also be removed to accommodate construction activities. These modifications would be minor and would not affect the primary recreational activities, features, or attributes associated with the pier.

As stated in Section 2.1, *Land Use*, the proposed project would replace the Pier Bridge. Construction of the proposed project would not increase the demand for use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. In addition, the project would not include the development of new recreational facilities or require the expansion of existing recreational facilities, which could have an adverse physical effect on the environment. As such, impacts under CEQA would be less than significant.

### 3.2.15 Transportation

Would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.15.1 CEQA Significance Determinations for Transportation

##### a) Less than Significant with Mitigation

As stated in Section 2.5, *Traffic and Transportation*, there is potential roadway closures would result in a decrease in roadway capacity and increased congestion during construction. However, with mitigation TRA-1, a Construction Traffic Impact Mitigation Plan shall be prepared and implemented prior to construction to provide for traffic and parking capacity management during construction. Therefore, any impacts to the circulation system would be temporary and reduced to a level of less than significant.

##### b) No Impact

The operation of the proposed Build Alternatives 1 and 2 (LPA) would not change any traffic or circulation patterns, or increase capacity resulting in an increase in vehicle miles traveled (VMT). Therefore, no operational impacts would result that would be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Build Alternatives 1 and 2 (LPA) would maintain the existing local circulation patterns.

##### c) No Impact

This project does not include any geometric design features that would be deemed hazardous and would follow Caltrans guidelines for construction and design.

##### d) No Impact

The proposed project would not result in inadequate emergency access. Rather, it would improve safety by providing improved access for pedestrians, bicyclists, and vehicles along the Pier Bridge.

### 3.2.16 Tribal Cultural Resources

Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe and:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources, as defined in Public Resources Code Section 5020.1(k), or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### 3.2.16.1 CEQA Significance Determinations for Tribal Cultural Resources

##### a, b) Less than Significant

The potential exists for unknown cultural resources to occur within the project area. However, mitigation measures CR-1 and CR-2, found in Section 2.7, *Cultural Resources*, of this recirculated EIR/EA, would mitigate any impacts associated with the potential for encountering of unknown cultural resources. In addition, letters were sent to the Native American Heritage Commission (NAHC) during preparation of the previously circulated EIR/EA as well as this recirculated EIR/EA. The letters asked the NAHC to search its Sacred Lands File to determine if sacred lands are present in the project area. The NAHC responded in writing and indicated that there are no sacred lands in the project area. The NAHC also provided a list of eight local Native American groups and individuals. This information was forwarded to Caltrans District 7, which sent letters regarding the project to the Native American groups and individuals for consultation purposes. Consultation with Native American groups is ongoing for this project.

### 3.2.17 Utilities and Service Systems

Would the Project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### 3.2.17.1 CEQA Significance Determinations for Utilities and Service Systems

##### a) Less than Significant with Incorporated Mitigation

Construction of Build Alternatives 1 and 2 (LPA) would require relocation of an emergency backup generator for the Santa Monica Pier Aquarium, which is located under the Pier Bridge, as well as relocation of a nearby electrical utility room. The City would implement Mitigation Measure UES-1 to ensure that the pier maintains essential services during construction of the project.

As stated in Section 2.4, *Utilities and Emergency Services*, the proposed project would replace an existing transportation facility with an updated facility. It would not result in a substantial change in the demand for utility services at the project site, even when considered in conjunction with other projects in the project area.

Utility services at the construction site would be provided from existing sources; no additional infrastructure improvements would be required. Therefore, with implementation of Mitigation Measure UES-1, no significant impacts under CEQA would occur.

**b) Less than Significant**

The proposed project would replace an existing transportation facility with an improved facility. Construction under Build Alternatives 1 and 2 (LPA) would require occasional use of water for mixing concrete, washing equipment and vehicles, dust control, and other activities. The amount of water used during construction on a daily basis would be minimal. Because the proposed project would require only a small, limited quantity of water, adequate water supplies would be available to serve the project from existing entitlements and resources. Water would not be required for operation of the proposed project. Therefore, the proposed project would not result in a significant impact, and no mitigation is proposed.

**c) No Impact**

This project would not affect wastewater facilities or require additional wastewater services.

**d) Less than Significant with Incorporated Mitigation**

Construction of Build Alternatives 1 and 2 (LPA) would result in relocation of a City of Santa Monica trash compactor that serves local businesses. To ensure that essential services at the pier, including waste compaction, would be maintained during construction of the project, the City would implement Mitigation Measure UES-1.

Because the project would comply with the solid waste standards set forth by the City as well as Mitigation Measure UES-1, it is not expected that construction of the proposed project would result in significant impacts under CEQA on landfills or solid waste disposal systems.

**e) No Impact**

This project would not conflict with federal, state, or local management and reduction statutes and regulations related to solid waste.

**3.2.18 Wildfire**

If located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones, would the project:	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Because of slopes, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate the fire risk or result in temporary or ongoing impacts on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

This section describes the existing setting of the proposed project site, identifies associated regulatory requirements and evaluates potential impacts related to wildfires. Potential wildfire impacts resulting from construction and operation of the proposed project were evaluated based on a review of existing resources, technical data, and applicable laws, regulations, guidelines, and standards.

**3.2.18.1 Regulatory Setting**

A wildfire is a nonstructural fire that occurs in vegetative fuels, excluding prescribed fire. Wildfires can occur in undeveloped areas and spread to urban areas where the landscape and structures are not designed and maintained to be ignition resistant. A wildland-urban interface is an area where urban development is located in proximity to open space or wildland areas. The potential for wildland fires represents a hazard where development is adjacent to open space or in proximity to wildland fuels or designated fire severity zones.

The primary federal law for regulating wildfire hazards is the Federal Wildland Fire Management Policy of 1995.

In the last two decades, wildfires in California have shown an increase in number of fires ignited, number of acres burned, and number of structures destroyed (CAL FIRE 2106a, 2018a). The California Department of Forestry and Fire Protection (CAL FIRE) protects the people of California from fires, responds to emergencies, and protects and enhances forest, range, and

watershed values, providing social, economic, and environmental benefits to rural and urban citizens. CAL FIRE's firefighters, fire engines, and aircraft respond to an average of more than 5,600 wildland fires each year (CAL FIRE 2012).

The Office of the State Fire Marshal supports CAL FIRE's mission by focusing on fire prevention, providing support through a wide variety of fire-safety responsibilities, including:

- Regulating buildings in which people live, congregate, or are confined;
- Controlling substances and products which may, in and of themselves, or by their misuse, cause injuries, death, and destruction by fire;
- Providing statewide direction for fire prevention in wildland areas;
- Regulating hazardous liquid pipelines;
- Reviewing regulations and building standards; and
- Providing training and education in fire protection methods and responsibilities.

The California Code of Regulations (CCR), Title 24, is a compilation of building standards, including fire safety standards for residential and commercial buildings. The California Building Code standards serve as the basis for the design and construction of buildings in California; the California Fire Code is a component of the California Building Code. Typical fire safety requirements of the California Fire Code include the installation of sprinklers in all high-rise buildings, the establishment of fire resistance standards for fire doors, building materials, and particular types of construction, and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas. The California Fire Code applies to all occupancies in California, except where more stringent standards have been adopted by local agencies. Specific California Fire Code regulations have been incorporated by reference, with amendments, in the Santa Monica Building Code, Fire Safety Regulations.

In addition to federal and state policies regarding the issue of wildfire, the City of Santa Monica addresses the topic in several local policies related to fire hazards, including those in the Safety Element of the City of Santa Monica's General Plan, City of Santa Monica's All Hazards Mitigation Plan, and the Local Coastal Program Update Land Use Plan.

### **3.2.18.2 Affected Environment**

The Pier Bridge is in the highly urbanized City of Santa Monica. The Pier Bridge, constructed in 1939, is approximately 490 feet long, extending west from the intersection of Ocean Avenue and Colorado Avenue to Santa Monica Pier. The predominant uses in the vicinity of the Pier Bridge include open space/recreational, visitor-serving commercial, and residential uses. The Pier Bridge connects the intersection of Ocean Avenue and Colorado Avenue to the pier, which stretches about 1,000 feet (305 meters) into Santa Monica Bay.

CAL FIRE uses Fire Hazard Severity Zones (FHSZ) to classify the anticipated fire-related hazard for state responsibility areas (SRAs). The classifications include Non-Wildland Non-Urban, Moderate, High, and Very High. Fire hazard measurements take into account the following elements: vegetation, topography, weather, crown fire production, and ember



production and movement. The very high fire hazard severity designation can be attributed to a variety of factors including highly flammable, dense, drought adapted desert chaparral vegetation, seasonal, strong winds, and a Mediterranean climate that results in vegetation drying during the months most likely to experience Santa Ana winds.

The project site and the surrounding area are not located in a fire-related hazard zone, as designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2007) (Figure 2.16-1, Fire Hazard Severity Zones in proposed project area).

### **3.2.18.3 Project Impacts for Build Alternatives 1 and 2 (LPA)**

#### **Construction**

The project site is not within or adjacent to forest areas or wildfire hazard zones. Furthermore, construction activities would not exacerbate fire risks or make the site or adjacent areas susceptible to wildfire. As the project site is not within or near any very high fire hazard severity zones, no impacts would occur.

#### **Operation**

The project site is not within or adjacent to forest areas or wildfire hazard zones, nor does it have features that exacerbate fire risks or make the site or adjacent areas more susceptible to wildfire. Because the project site is not located within or near any very high fire hazard severity zones, no impacts would occur.

### **3.2.18.4 Cumulative Impacts**

#### **Affected Environment**

**Resource Study Area:** The project site is the Pier Bridge, which is located in the southwestern portion of Los Angeles County, in the City of Santa Monica. The project site is in a highly urbanized area, and is surrounded by a variety of residential, commercial, institutional and recreational uses.

**Existing Conditions within RSA:** The project site is not located in a fire-related hazard zone, as designated by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE 2007) (Figure 2.16-1, Fire Hazard Severity Zones in proposed project area).

#### **Environmental Consequences**

**Potential Direct and/or Indirect Impacts within RSA:** The proposed project would not impact emergency access and evacuation, nor would it introduce new development or population into an area that would create a significant wildfire risk. The Project site is not located within or adjacent to forest areas or wildfire hazard zones, nor does it have features that would exacerbate fire risks or make the site or adjacent areas more susceptible to wildfire.

**Current and Reasonably Foreseeable Projects within RSA:** As the nearest Very High Fire Hazard Zone is located over 1.5 miles north of the project site, related projects would not result in significant wildfire risks.

**Cumulative Impact Potential:** The project and related projects would not contribute to a cumulatively considerable impact.

### **3.2.18.5 CEQA Significance Determinations for Wildfire**

#### **a) Less than Significant**

Emergency access to the project site could be affected by construction. Temporary lane closures on Moomat Ahiko Way and Appian Way, as well as construction-related traffic, could delay or obstruct the movement of emergency vehicles, thereby resulting in a potentially significant impact. To minimize the potential for this impact, the City would implement Mitigation Measure UES-2, as described in Section 2.12, *Hazardous Waste and Materials*, to ensure adequate emergency access, maintain traffic flow, and maintain adequate response times for the SMPD and SMFD. As such, construction activities associated with the proposed project are not expected to significantly affect emergency medical services, police protection, or fire protection provided by the SMPD and SMFD in the project area or implementation of the City of Santa Monica Multi-Hazard Functional Emergency Plan.

#### **b, c, and d) No Impact**

Wildland fires are not a concern because Santa Monica Pier is in a highly developed area of Santa Monica. No wildland areas are in its vicinity. Therefore, no impact would occur, and no mitigation is required.

### 3.2.19 Mandatory Findings of Significance

	Significant and Unavoidable Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

#### 3.2.19.1 CEQA Significance Determinations for Mandatory Findings of Significance

##### a, b) No Impact

As stated in Chapter 2, there is potential for listed species to occur within the Biological Study Area (BSA) for the project. Additionally, the Project would not affect riparian habitat or other sensitive natural communities. Therefore, no impact would occur, and no mitigation is required. Additionally, the project will not result in impacts to any known archaeological resources representative of California history or prehistory.

##### c) Significant and Unavoidable

As detailed in Section 2.7, *Cultural Resources*, under Build Alternatives 1 and 2 (LPA), demolition of the existing Pier Bridge has the potential result in a significant and unavoidable impact to the eligible Pier District due to the permanent removal of this contributing resource. However with mitigation measures CR-3, CR-4, CR-5 and CR-8 incorporated, the impact is reduced to less than significant.

### 3.3 Mitigation Measures for Significant Impacts under CEQA

This section lists the proposed avoidance, minimization, and/or mitigation measures for each potentially significant or significant impact listed in the sections above. For a complete list of avoidance, minimization, and/or mitigation measures for all areas, including those without a potentially significant impact, please see Appendix F, *Minimization and/or Mitigation Summary*, to this EIR/EA.

#### 3.1.1 Air Quality

The proposed project would be subject to SCAQMD Rule 403, the purpose of which is to reduce the amount of particulate matter entrained in the ambient air. In addition, implementation of Mitigation Measure AQ-1 would reduce emissions of criteria pollutants and localized effects during the construction period.

**AQ-1** Most construction-related impacts on air quality are short term and, therefore, do not result in long-term adverse conditions. Implementation of the following avoidance and minimization measures, some of which may also be required for other purposes, such as stormwater pollution control, would reduce any air quality impacts resulting from construction activities:

- The construction contractor must comply with Caltrans Standard Specifications in Section 14-9 (2018).
  - Section 14-9-02 specifically requires the contractor to comply with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
- Water or dust palliative will be applied to the site and equipment as often as necessary to control fugitive dust emissions. Fugitive emissions generally must meet a “no visible dust” criterion, either at the point of emission or at the right-of-way line, depending on local regulations.
- Soil binder will be spread on any unpaved roads used for construction purposes and on all project construction parking areas.
- Construction equipment and vehicles will be properly tuned and maintained. All construction equipment will use low-sulfur fuel, as required by California Code of Regulations Title 17, Section 93114.
- A dust control plan will be developed, documenting sprinkling, temporary paving, speed limits, and timely revegetation of disturbed slopes, as needed, to minimize construction impacts on existing communities.
- Equipment and material storage sites will be located as far away from residential and park uses as practicable. Construction areas will be kept clean and orderly.

- Environmentally sensitive areas, or their equivalent, will be established near sensitive air receptors. Within these areas, construction activities involving extended idling of diesel equipment or vehicles will be prohibited, to the extent feasible.
- Track-out reduction measures, such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic, will be used.
- All transported loads of soils and wet materials will be covered before transport or adequate freeboard (i.e., the space from the top of the material to the top of the truck) will be provided to minimize emissions of dust (particulate matter) during transportation.
- Dust and mud deposited on paved public roads due to construction activity and traffic will be promptly and regularly removed to decrease particulate matter.
- To the extent feasible, construction traffic will be scheduled and routed so as to reduce congestion and related air quality impacts caused by idling vehicles along local roads during peak travel times.
- Mulch will be installed, or vegetation planted as soon as practical after grading to reduce windblown particulate in the area. Be aware that certain methods of mulch placement, such as straw blowing, may themselves cause dust and visible emissions; therefore, it may be necessary to use controls, such as dampened straw.

### 3.3.1 Biological Resources

No impacts under CEQA on natural communities of special concern would occur under Build Alternatives 1 and 2 (LPA) because none of these communities are present. Therefore, mitigation measures for natural communities of concern are not required. All improvements would occur within areas that are already developed. However, Avoidance and Minimization Measure BIO-1 would be implemented to limit the extent of the construction impact on sandy beach habitat adjacent to the project site.

**BIO-1** All construction-related work, including staging, storage, and access, shall be limited to the greatest extent feasible, shall occur within the project limits, and shall not encroach upon the sandy beach habitat adjacent to the project site.

Non-listed special-status plant species have very low potential to occur within the BSA. Avoidance and Minimization Measure BIO-1 (detailed above) would fully avoid any potential for impacts on these species.

The following measures apply to Build Alternatives 1 and 2 (LPA) to avoid and minimize impacts on animal species:

**BIO-2.** To avoid impacts on bats that may be roosting in palm trees within the project area, direct impacts on unmanicured palms with dead fronds shall be avoided during construction, and activities that cause high levels of vibration and/or noise,

within 500 feet, shall also be avoided. If it is not possible to avoid direct impacts (e.g., tree removal, tree disturbance, tree trimming), as well as indirect impacts (e.g., noise, vibration), a qualified bat biologist shall survey the trees in the project area (i.e., conduct acoustic nighttime surveys) prior to disturbance to determine whether bats are roosting. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning.

**BIO-3.** A qualified bat biologist who is also familiar with crevice-dwelling bird species shall survey the project disturbance limits and the Pier Bridge in early summer, prior to construction, to assess the potential for the bridge's use for bat roosting, bat maternity roosting, and bird roosting/nesting (maternity roosts and nests generally form in spring). The qualified bat biologist shall also perform preconstruction surveys within 2 weeks of construction because bat and bird roosts can change seasonally. These surveys will include a combination of structure inspections, exit counts, and acoustic surveys. A copy of all survey results shall be forwarded to Caltrans' Division of Environmental Planning and the City.

**BIO-4.** If recommended by the qualified bat biologist, to avoid indirect disturbance of bats and birds while roosting in areas that would be subject to or adjacent to impacts from construction activities, any portion of a structure that is deemed by a qualified bat biologist to have potential bat or bird roosting habitat, in areas where the young have the ability to fly and may be affected by the proposed project, shall have temporary bat/bird eviction and exclusion devices installed under the supervision of the qualified bat biologist prior to the initiation of construction activities. Eviction and subsequent exclusion will be conducted during the fall (September or October) to avoid trapping flightless young inside during the summer months or hibernating/overwintering individuals during the winter. Such exclusion efforts are dependent on weather conditions, take a minimum of 2 weeks, and must be continued to keep the structures free of bats and birds until the completion of construction. All eviction and/or exclusion techniques shall be coordinated between the qualified bat biologist and the appropriate resource agencies (e.g., California Department of Fish and Wildlife). Work shall cease around any active bat maternity colony until such time that the young have the ability to fly, as determined by a qualified bat biologist.

**BIO-5.** Within 7 days of the commencement of construction activities (if between January 15 and September 1), a qualified biologist shall perform a nesting bird survey to determine whether there are active migratory bird nests within 200 feet of the project footprint and raptor nests within 500 feet of the project footprint. If present, this survey shall identify the species and, to the degree feasible, nesting stage (e.g., incubation of young, feeding of young, near fledging). Nests shall be mapped to the nearest location feasible without causing disturbance (close encroachment may cause nest abandonment). If active nests of non-listed migratory birds are found, construction shall not occur within a buffer until the nesting attempt has been completed and/or abandoned because of non-project-related reasons. The buffer distance for non-listed migratory birds shall be determined by the project biologist, depending on the species' requirements, sensitivity to disturbance, and project activities. Construction shall not occur within 500 feet of a raptor's nest until the nesting attempt has been completed and/or abandoned because of

non-project-related reasons. If a nest of a special-status migratory bird (either a federal or state listed or non-listed species) is found, an appropriate buffer distance shall be determined, based on the species' nesting requirements and sensitivity to disturbance, in consultation with the appropriate wildlife agencies (i.e., California Department of Fish and Wildlife and/or U.S. Fish and Wildlife Service), depending on the species' status. A copy of all survey results and any agency coordination shall be forwarded to Caltrans' Division of Environmental Planning and the City.

In compliance with Executive Order (EO) 13112, weed control would be performed to minimize the importation of nonnative plant material during and after construction. Eradication strategies would be employed should an invasion occur. Measures to address issues related to the abatement and eradication of invasive species would be included in the project design and contract specifications. These measures include measures BIO-6 and BIO-7:

**BIO-6.** Construction equipment shall be inspected and cleaned to minimize the importation of nonnative plant material. Eradication strategies (e.g., weed control) shall be implemented should an invasion of nonnative plant species occur.

**BIO-7.** After construction, species with a high or moderate rating on the California Invasive Species Plant Council's (Cal-IPC's) California Invasive Plant Inventory, including any Cal-IPC-listed species of ice plant, shall not be planted in any revegetated areas.

### 3.3.2 Cultural Resources

**CR-1.** If human remains are discovered during construction, California Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in any area or nearby area suspected to overlie remains and the county coroner shall be contacted. Pursuant to Public Resources Code Section 5097.98, if the remains are thought to be Native American, the coroner will notify the Native American Heritage Commission, which will then notify the most likely descendent. At that time, the person who discovered the remains will contact the District 7 Division of Environmental Planning to work with the most likely descendent on the respectful treatment and disposition of the remains. Further provisions of Public Resources Code Section 5097.98 are to be followed, as applicable.

**CR-2.** If buried cultural resources, such as flaked or ground stone, historic debris, building foundations, or non-human bone, are inadvertently discovered during ground-disturbing activities, work shall stop in that area and within 100 feet of the find until a qualified archaeologist can assess the significance of the find and, if necessary, develop appropriate treatment measures. Treatment measures typically include developing avoidance strategies, capping with fill material, or mitigating impacts through data recovery programs such as excavation or detailed documentation.

**CR-3.** Prior to any construction starting, a treatment plan shall be prepared to ensure the protection of the Pier Sign throughout the construction phase.

**CR-4.** All of the modifications to the Pier deck that are visible will be reconstructed and replaced in kind so as to maintain the historic character of the Pier, with new materials matching the original/old design, color, texture, and other visual qualities. All such work shall be accurately reproduced, based on historical, pictorial, and physical documentation and evidence. A Certificate of Appropriateness, approved by the City of Santa Monica Landmarks Commission, is also required.

**CR-5.** To ensure a compatible replacement bridge avoids significant adverse effects to adjacent historic resources and their historic setting, the new bridge design shall follow guidance and direction provided in the Pier District Design Guidelines. In consideration of the proportions, window placement, and alignment with elements of Looff's Hippodrome and surrounding historic resources, the following features shall be studied: landings and horizontal structure lines; building openings; visible joint lines and glazing mullions.

### 3.3.3 Geology and Soils

In general, with respect to construction activities for the project Build Alternatives 1 and 2 (LPA), the geologic and seismic hazards can be effectively mitigated by employing sound engineering practice in the design and construction of the replacement Pier Bridge and associated structures. However, because of the potential for strong seismic ground shaking, soil liquefaction, and unsuitable soil conditions, which would be applicable to both build alternatives, the measure stated below would be implemented.

**GEO-1.** The following actions shall be incorporated into the project:

- Removal of unsuitable subgrade soils and replacement with engineered fill,
- Use of coated or nonmetallic (i.e., concrete or PVC) pipes that are not susceptible to corrosion,
- Construction of foundations using sulfate-resistant concrete,
- Support of structures on deep-pile foundations systems,
- Densification of compactable subgrade soils with in-situ techniques, and
- Placement of moisture barriers above and around expansive subgrade soils to help prevent variations in soil moisture content.

**PAL-1.** Because of the paleontological potential of the older Quaternary alluvium, a qualified vertebrate paleontologist shall be retained by the City or construction contractor to oversee monitoring during earthmoving activities with the potential to affect this formation. Excavations can be monitored by a qualified paleontological monitor under the supervision of the qualified paleontologist. Monitoring shall be conducted during construction activities that can be feasibly monitored. Deep-drilled, poured-in-place concrete shafts will be monitored only if possible (e.g., during initial clearing and grading of the shaft sites). Monitoring of earthwork in the older Quaternary alluvium will reduce potential impacts to a less-than-significant level.



Monitoring may be reduced if the potentially fossiliferous unit described herein is, upon exposure and examination by qualified paleontologic personnel, determined to have low potential for containing fossil resources.

The paleontologic monitor shall be equipped to salvage fossils as they are unearthed to avoid construction delays and remove samples of sediments that are likely to contain the remains of small fossil invertebrates and vertebrates. The monitor shall have authority to temporarily divert grading away from exposed fossils to recover the fossil specimens professionally and efficiently and collect associated data. All efforts to avoid delays in project schedules shall be made. To prevent construction delays, paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment shall include handheld global positioning system receivers, digital cameras, and cell phones as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (e.g., awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis.

Fossils collected, if any, shall be transported to a paleontological laboratory for processing where they shall be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and then deposited in a designated paleontological curation facility such as the Natural History Museum of Los Angeles County.

Following analysis, a report of findings with an appended itemized inventory of specimens shall be prepared. The report and inventory, when submitted to the appropriate lead agency, along with confirmation of the curation of recovered specimens into an established, accredited museum repository, shall signify completion of the program to mitigate impacts on paleontological resources.

### 3.3.4 Hazards and Hazardous Materials

As described in Section 2.12.2, *Affected Environment*, the project footprint was not listed in any of the environmental databases searched in the ISA. In addition, detailed analysis of nearby hazardous materials sites did not identify any with a high likelihood to affect the proposed project. Therefore, it is unlikely that construction activities associated with either of the build alternatives would expose contaminated soil or groundwater from historic land uses either within the project footprint or adjacent to other properties. However, the mitigation measures below are included to minimize the potential effects of exposure to lead-based paint, aerially deposited lead, asbestos-containing material, or (undocumented) contaminated soils or groundwater on construction personnel, the public, or the environment and maintain adequate emergency response times during construction.

**HAZ-1.** If discovered on-site, asbestos and lead-based paint hazards shall be abated in accordance with SCAQMD Rule 1403 prior to any demolition or bridge rehabilitation activities.

**HAZ-2.** In accordance with hazardous waste concerns relative to the final project design plans, the following shall be provided to the Caltrans Office of Environmental Engineering for informational purposes:

- A schedule for completion of the detailed final construction documents and plans for the preferred alternative,
- A hazardous waste Sampling and Analysis Plan, and
- A Site Investigation Report for aerially deposited lead, which shall be performed to determine the extent of possible contamination within the state right-of-way.

The detailed construction document/plans shall include design features and information showing proposed structure/foundation work (i.e., footing/pile types, pile lengths, maximum excavation depths) and the new right-of-way. Based on the detailed construction document/plans, the following shall be submitted to the Caltrans Office of Environmental Engineering for review and approval:

- Sampling and Analysis Plan (including a Health and Safety Plan) for soil and groundwater (including aerially deposited lead);
- Asbestos-Containing Material and Lead-Based Paint Survey Work Plan for bridge demolition work; and
- Draft and Final Site Investigation Report, Asbestos-Containing Material Report, and Lead-Based Paint Survey Report.

Based on the final/approved Site Investigation Report and investigative results, the City of Santa Monica will be required to prepare the necessary construction plans and specifications for remediation of hazardous materials (including soil and groundwater). The specifications shall comply with current Caltrans Standard Special Provisions (SSPs) and Standard Plans. In addition, the City shall review and incorporate Caltrans SSPs for work related to:

- Disturbance of material containing hazardous waste with concentrations of aerially deposited lead,
- Removal of material containing hazardous waste with concentrations of aerially deposited lead,
- Removal of yellow traffic stripes and pavement marking with hazardous waste residue,
- Disturbance of existing paint on bridges,
- Removal of treated wood waste, and
- Removal of traffic stripes and pavement markings containing lead.

**HAZ-3.** Although contaminated soil is unlikely to be present on the project site, the contractor shall observe exposed soil for visual evidence of contamination during excavation activities. If visual contamination indicators are observed during excavation or grading activities, all work shall stop, and an investigation shall be designed and

performed to verify the presence and extent of contamination at the site. A qualified and approved environmental consultant shall perform the review and investigation. Results shall be reviewed and approved by the applicable local and state agencies prior to construction. The investigation shall include collecting samples for laboratory analysis and quantifying contaminant levels within the proposed excavation and surface disturbance areas. Subsurface investigation shall determine appropriate procedures for worker protection and hazardous material handling and disposal procedures for the project site.

**HAZ-4.** Areas with contaminated soil determined to be hazardous waste shall be excavated by personnel who have been trained through the Occupational Safety and Health Administration–recommended 40-hour safety program (29 Code of Federal Regulations 1910.120), with an approved plan for excavation, control of contaminant releases to the air, and off-site transport or on-site treatment. Health and safety plans prepared by a qualified and approved industrial hygienist shall be developed to protect the public and all workers in the construction area. Health and safety plans shall be reviewed and approved by the appropriate local and state agencies.

**HAZ-5.** Should construction activities result in the removal of yellow or white paint or thermoplastic traffic stripes, the age of the traffic striping shall be determined. If lead or chromium is present in the materials at or above specified hazardous waste levels, it shall be appropriately captured and transported, then disposed of at a permitted Class I disposal facility in California. In addition, a project-specific Lead Compliance Plan shall be required to prevent or minimize worker exposure while handling materials containing lead. Attention shall be directed to Title 8, California Code of Regulations, Section 1532.1, Lead.

Although there is no evidence that groundwater in the immediate vicinity of the Pier Bridge contains high levels of contaminants or hazardous materials, the following minimization measure shall be implemented:

**HAZ-6.** Excavations below the elevations of groundwater could experience strong seepage and require dewatering. The contractor shall observe the groundwater for visual evidence of contamination or unusual odors. The contractor shall comply with all applicable regulations and permit requirements for construction dewatering. This may include laboratory testing, treatment of contaminated groundwater, or other disposal options.

The following mitigation measure shall be implemented during project construction to ensure adequate access and minimal impacts on emergency response times for fire and police services in the vicinity of the proposed project:

**UES-2.** Both before construction begins and thereafter, the City of Santa Monica project manager and construction contractor shall regularly notify and coordinate with the SMPD and SMFD during project construction design and scheduling, particularly in regard to any street or lane closures related to the proposed project.

### 3.3.5 Hydrology and Water Quality

Minimization Measures WQ-1 and WQ-2, discussed below, would be implemented to avoid or minimize potential hydrology and water quality impacts of the proposed project.

**WQ-1.** The proposed project will comply with the provisions of the National Pollutant Discharge Elimination System (NPDES) Permit and Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4 (Order No. R4-2012-0175, NPDES No. CAS004001) and the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) (Order No. 2009-0009-DWQ, NPDES No. CAS000002) and any subsequent permits in effect at the time of construction.

**WQ-2.** The proposed project will comply with the Construction General Permit by preparing and implementing a SWPPP to address all construction-related activities, equipment, and materials that have the potential to affect water quality for the appropriate risk level. The SWPPP will identify the sources of pollutants that may affect the quality of stormwater and include BMPs to control the pollutants, such as sediment control, catch basin inlet protection, construction materials management, and non-stormwater BMPs. All work must conform to the construction site BMP requirements specified in the latest edition of the *Construction Site Best Management Practices Manual* to control and minimize the impacts of construction and construction-related activities, materials, and pollutants on the watershed. These include, but are not limited to, temporary sediment control, temporary soil stabilization, scheduling waste management, materials handling, and other non-stormwater BMPs.

### 3.3.6 Land Use

The proposed project would have no adverse effects under NEPA and less-than-significant impacts under CEQA on park and recreational facilities or Section 4(f) resources with incorporation of the mitigation measure below.

**LU-1.** The historic pier sign itself shall be maintained and preserved in kind. Repairs shall be performed, as needed, to preserve the sign's longevity and historic aesthetic. New support structures, to accommodate widening of the bridge, shall be constructed and designed to match the existing historic context and aesthetic of the bridge. All designs for the support structures shall be approved by a certified architectural historian.

### 3.3.7 Public Services

The following measures are proposed to mitigate impacts on utility services and police and fire protection services:

**UES-1.** Prior to construction activities that could affect utility services on the pier, the City of Santa Monica project manager and construction contractor shall coordinate with utility owners to develop a plan to maintain continuous essential services to the pier during construction.

**UES-2.** Both before construction begins and thereafter, the City of Santa Monica project manager and construction contractor shall regularly notify and coordinate with the SMPD and SMFD during project design and scheduling, particularly in regard to any street or lane closures related to the proposed project.

### **3.3.8 Traffic and Transportation/Pedestrian and Bicycle Facilities**

**TRA-1.** A Construction Traffic Impact Mitigation Plan shall be prepared and implemented to provide for traffic and parking capacity management during construction. This plan shall be subject to approval by the City Planning Department prior to construction. The approved mitigation plan shall be posted on the site for the duration of the Project construction and shall be produced upon request. The plan shall include, but not be limited to, the following:

- A public information program to advise motorists of impending and ongoing construction activities (e.g., media listing/notification, City website and related agency websites, portable message signs, and information signs at the construction site, telephone hotline to record comments/complaints during construction);
- Approval from the City, or Caltrans if required, for any construction vehicular traffic detours or construction work requiring encroachment into public rights-of-way, or any other street use activity (e.g., haul routes for earth, concrete, construction materials or equipment);
- Provide safety precautions for pedestrians and bicyclists through such measures as protection barriers and signage indicating pedestrian and bicycle detour routes where existing facilities would be affected;
- Timely notification of construction schedules to all affected agencies (e.g., Police Department, Fire Department, Department of Public Works, Department of Planning and Community Development and affected transit agencies (Big Blue Bus and Metro) and to all owners and residential and commercial tenants of property within a radius of 500 feet;
- Schedule of pre-construction meetings with affected agencies to properly plan methods of controlling traffic through work areas;
- Schedule and expedite work to cause the least amount of disruption and interference to the adjacent vehicular and pedestrian traffic flow, including, to the extent feasible, avoiding full closures of Moomat Ahiko Way, Appian Way, and Ocean Front Walk during months of peak activity at the pier;

- Any requests for work before or after normal construction hours within the public right-of-way shall be subject to review and approval through the After Hours Permit process administered by the Public Works Department;
- Prepare detailed traffic control plan for work zones which include, at a minimum, parking and travel lane configurations; warning, regulatory, guide, and directional signage; and area sidewalks, bicycle lanes, and parking lanes. The plan shall include specific information regarding the Project's construction activities that may disrupt normal pedestrian and traffic flow and the measures to address these disruptions. Such plans shall be reviewed and approved by the Transportation Management Division prior to commencement of construction and implemented in accordance with its approval;
- Monitor traffic conditions during construction and, if needed, assign traffic control officers to direct vehicular traffic and pedestrians;
- Consider creating a pedestrian detour route beside the Beach Bike Path with temporary paving or another hard surface to minimize the potential for conflicts between cyclists and pedestrians;
- Minimize dirt and demolition material hauling and construction material delivery during the morning and afternoon peak traffic periods and clean streets and equipment, as necessary;
- Limit the queuing of trucks to on-site locations and limit truck queuing on City streets; of construction material and equipment to designated work areas;
- Provide a construction-period parking plan that minimizes the use of public streets for parking and which may include the use of a remote location with shuttle transport to the site;
- If feasible and safe, as determined by the City of Santa Monica and Caltrans, Moomat Ahiko Way shall remain open during major events and activities at the Santa Monica Pier; and
- Unless required by the City and Caltrans, the California Incline shall remain open during the construction period for the proposed Project.

### 3.4 Climate Change

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels.

While climate change has been a concern for several decades, the establishment of the Intergovernmental Panel on Climate Change (IPCC) by the United Nations and World Meteorological Organization in 1988 led to increased efforts devoted to GHG emissions reduction and climate change research and policy. These efforts are primarily concerned with the

emissions of GHGs generated by human activity, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF<sub>6</sub>), and various hydrofluorocarbons (HFCs). CO<sub>2</sub> is the most abundant GHG; while it is a naturally occurring component of Earth's atmosphere, fossil-fuel combustion is the main source of additional, human-generated CO<sub>2</sub>.

Two terms are typically used when discussing how we address the impacts of climate change: “greenhouse gas mitigation” and “adaptation.” Greenhouse gas mitigation covers the activities and policies aimed at reducing GHG emissions to limit or “mitigate” the impacts of climate change. Adaptation, on the other hand, is concerned with planning for and responding to impacts resulting from climate change (such as adjusting transportation design standards to withstand more intense storms and higher sea levels). This analysis will include a discussion of both.

### **3.1.1 Regulatory Setting**

This section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

#### **3.4.1.1 Federal Regulatory Environment**

To date, no national standards have been established for nationwide mobile-source GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level.

The National Environmental Policy Act (NEPA) (42 United States Code [USC] Part 4332) requires federal agencies to assess the environmental effects of their proposed actions prior to making a decision on the action or project.

The Federal Highway Administration (FHWA) recognizes the threats that extreme weather, sea-level change, and other changes in environmental conditions pose to valuable transportation infrastructure and those who depend on it. FHWA therefore supports a sustainability approach that assesses vulnerability to climate risks and incorporates resilience into planning, asset management, project development and design, and operations and maintenance practices (FHWA 2019). This approach encourages planning for sustainable highways by addressing climate risks while balancing environmental, economic, and social values—“the triple bottom line of sustainability” (FHWA n.d.). Program and project elements that foster sustainability and resilience also support economic vitality and global efficiency, increase safety and mobility, enhance the environment, promote energy conservation, and improve the quality of life.

Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects. The most important of these was the Energy Policy and Conservation Act of 1975 (42 USC Section 6201) and Corporate Average Fuel Economy (CAFE) Standards. This act establishes fuel economy standards for on-road motor vehicles sold in the United States. Compliance with federal fuel economy standards is

determined through the CAFE program based on each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Energy Policy Act of 2005, 109th Congress H.R.6 (2005–2006): This act sets forth an energy research and development program covering: (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) the establishment of the Office of Indian Energy Policy and Programs within the Department of Energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology.

The U.S. EPA in conjunction with the National Highway Traffic Safety Administration (NHTSA) is responsible for setting GHG emission standards for new cars and light-duty vehicles to significantly increase the fuel economy of all new passenger cars and light trucks sold in the United States. Fuel efficiency standards directly influence GHG emissions.

### 3.4.1.2 State Regulatory Environment

California has been innovative and proactive in addressing GHG emissions and climate change by passing multiple Senate and Assembly bills and executive orders (EOs) including, but not limited to, the following:

- **EO S-3-05 (June 1, 2005):** The goal of this EO is to reduce California's GHG emissions to: (1) year 2000 levels by 2010, (2) year 1990 levels by 2020, and (3) 80 percent below year 1990 levels by 2050. This goal was further reinforced with the passage of Assembly Bill (AB) 32 in 2006 and Senate Bill (SB) 32 in 2016.
- **Assembly Bill (AB) 32, Chapter 488, 2006, Núñez and Pavley, The Global Warming Solutions Act of 2006:** AB 32 codified the 2020 GHG emissions reduction goals outlined in EO S-3-05, while further mandating that the California Air Resources Board (ARB) create a scoping plan and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." The Legislature also intended that the statewide GHG emissions limit continue in existence and be used to maintain and continue reductions in emissions of GHGs beyond 2020 (Health and Safety Code [H&SC] Section 38551(b)). The law requires ARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.
- **EO S-01-07 (January 18, 2007):** This order sets forth the low carbon fuel standard (LCFS) for California. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by the year 2020. ARB re-adopted the LCFS regulation in September 2015, and the changes went into effect on January 1, 2016. The program establishes a strong framework to promote the low-carbon fuel adoption necessary to achieve the governor's 2030 and 2050 GHG reduction goals.
- **Senate Bill (SB) 375, Chapter 728, 2008, Sustainable Communities and Climate Protection:** This bill requires ARB to set regional emissions reduction targets for passenger vehicles. The Metropolitan Planning Organization (MPO) for each region must then develop a "Sustainable Communities Strategy" (SCS) that integrates transportation, land-use, and housing policies to plan how it will achieve the emissions target for its region.



- **SB 391, Chapter 585, 2009, California Transportation Plan:** This bill requires the State's long-range transportation plan to identify strategies to address California's climate change goals under AB 32.
- **EO B-16-12 (March 2012)** orders State entities under the direction of the Governor, including ARB, the California Energy Commission, and the Public Utilities Commission, to support the rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.
- **EO B-30-15 (April 2015)** establishes an interim statewide GHG emission reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050. It further orders all state agencies with jurisdiction over sources of GHG emissions to implement measures, pursuant to statutory authority, to achieve reductions of GHG emissions to meet the 2030 and 2050 GHG emissions reductions targets. It also directs ARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent (MMT $\text{CO}_2\text{e}$ ).<sup>1</sup> Finally, it requires the Natural Resources Agency to update the state's climate adaptation strategy, *Safeguarding California*, every 3 years, and to ensure that its provisions are fully implemented.
- **SB 32, Chapter 249, 2016**, codifies the GHG reduction targets established in EO B-30-15 to achieve a mid-range goal of 40 percent below 1990 levels by 2030.
- **SB 1386, Chapter 545, 2016**, declared "it to be the policy of the state that the protection and management of natural and working lands ... is an important strategy in meeting the state's greenhouse gas reduction goals, and would require all state agencies, departments, boards, and commissions to consider this policy when revising, adopting, or establishing policies, regulations, expenditures, or grant criteria relating to the protection and management of natural and working lands."
- **AB 134, Chapter 254, 2017**, allocates Greenhouse Gas Reduction Funds and other sources to various clean vehicle programs, demonstration/pilot projects, clean vehicle rebates and projects, and other emissions-reduction programs statewide.
- **SB 743, Chapter 386 (September 2013):** This bill changes the metric of consideration for transportation impacts pursuant to CEQA from a focus on automobile delay to alternative methods focused on vehicle miles travelled, to promote the state's goals of reducing greenhouse gas emissions and traffic related air pollution and promoting multimodal transportation while balancing the needs of congestion management and safety.
- **SB 150, Chapter 150, 2017, Regional Transportation Plans:** This bill requires ARB to prepare a report that assesses progress made by each metropolitan planning organization in meeting their established regional greenhouse gas emission reduction targets.

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<sup>1</sup> GHGs differ in how much heat each trap in the atmosphere (global warming potential, or GWP).  $\text{CO}_2$  is the most important GHG, so amounts of other gases are expressed relative to  $\text{CO}_2$ , using a metric called "carbon dioxide equivalent" ( $\text{CO}_2\text{e}$ ). The global warming potential of  $\text{CO}_2$  is assigned a value of 1, and the GWP of other gases is assessed as multiples of  $\text{CO}_2$ .

- **EO B-55-18 (September 2018)** sets a new statewide goal to achieve and maintain carbon neutrality no later than 2045. This goal is in addition to existing statewide targets of reducing GHG emissions.
- **EO N-19-19 (September 2019)** advances California's climate goals in part by directing the California State Transportation Agency to leverage annual transportation spending to reverse the trend of increased fuel consumption and reduce GHG emissions from the transportation sector. It orders a focus on transportation investments near housing, managing congestion, and encouraging alternatives to driving. This EO also directs ARB to encourage automakers to produce more clean vehicles, formulate ways to help Californians purchase them, and propose strategies to increase demand for zero-emission vehicles.

### 3.4.1.3 Local Regulatory Environment

Santa Monica's Climate Action and Adaptation Plan (Plan), adopted in May 2019, establishes an interim goal of reducing carbon emissions to 80% below 1990 levels by 2030. The Plan provides a roadmap to advance goals across programmatic and departmental lines, with the goal of achieving carbon neutrality by 2050 or sooner. Vehicle transportation contributes more than 60% of Santa Monica's total carbon emissions. The Plan includes the local policies, infrastructure, and incentives needed to encourage safety, convenience, and affordable options to all members of the community by encouraging a wide variety of mobility options that do not rely solely on vehicles.

### 3.4.2 Environmental Setting

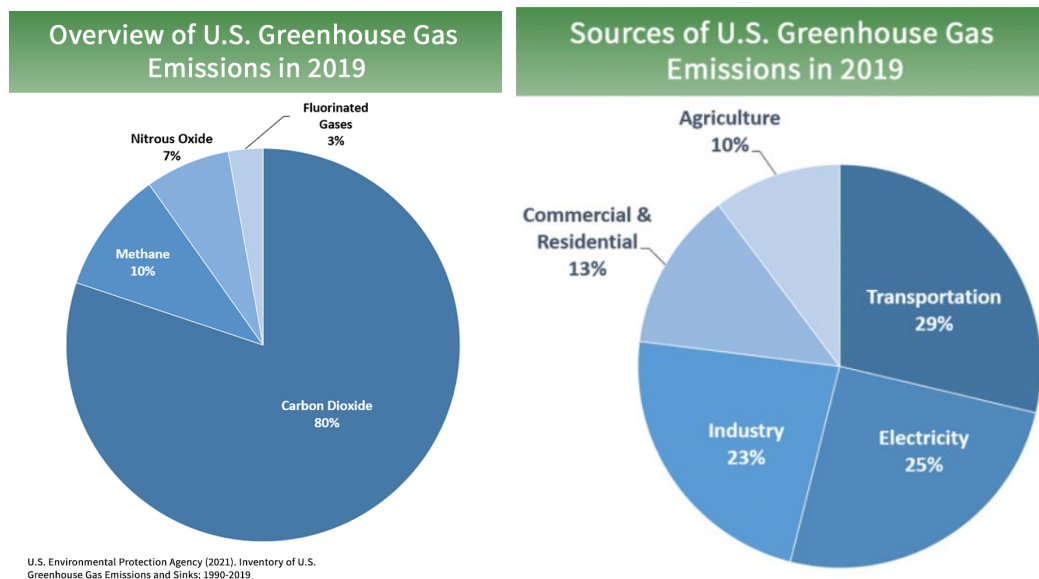
The proposed project is within a well-known area of the City of Santa Monica with an existing road and street network. The project area is a local tourist attraction consisting mainly of commercial buildings as well as the Santa Monica Pier. Traffic congestion during peak hours is not uncommon in the project area. An RTP/SCS by Southern California Association of Governments (SCAG) guides transportation and housing development in the project area. The Conservation Element of the City of Santa Monica General Plan addresses the conservation of energies and air pollution in the project area.

A GHG emissions inventory estimates the amount of GHGs discharged into the atmosphere by specific sources over a period of time, such as a calendar year. Tracking annual GHG emissions allows countries, states, and smaller jurisdictions to understand how emissions are changing and what actions may be needed to attain emission reduction goals. U.S. EPA is responsible for documenting GHG emissions nationwide, and the ARB does so for the state, as required by H&SC Section 39607.4.

#### 3.4.2.1 National GHG Inventory

The U.S. EPA prepares a national GHG inventory every year and submits it to the United Nations in accordance with the Framework Convention on Climate Change. The inventory provides a comprehensive accounting of all human-produced sources of GHGs in the United States, reporting emissions of CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, perfluorocarbons, SF<sub>6</sub>, and nitrogen trifluoride. It also accounts for emissions of CO<sub>2</sub> that are removed from the atmosphere by

“sinks” such as forests, vegetation, and soils that uptake and store CO<sub>2</sub> (carbon sequestration). The 1990–2019 inventory found that of 6,558 MMTCO<sub>2</sub>e GHG emissions in 2019, 80% consist of CO<sub>2</sub>, 10% are CH<sub>4</sub>, and 7% are N<sub>2</sub>O; the balance consists of fluorinated gases (EPA 2020). In 2019, GHG emissions from the transportation sector accounted for 29% of U.S. GHG emissions.



**Figure 3.4-1. U.S. 2019 Greenhouse Gas Emissions**

### 3.4.2.2 State GHG Inventory

ARB collects GHG emissions data for transportation, electricity, commercial/residential, industrial, agricultural, and waste management sectors each year. It then summarizes and highlights major annual changes and trends to demonstrate the state’s progress in meeting its GHG reduction goals. The 2020 edition of the GHG emissions inventory found total California emissions of 425.3 MMTCO<sub>2</sub>e for 2018, with the transportation sector responsible for 41% of total GHGs. It also found that overall statewide GHG emissions declined from 2000 to 2018 despite growth in population and state economic output (ARB 2020a).

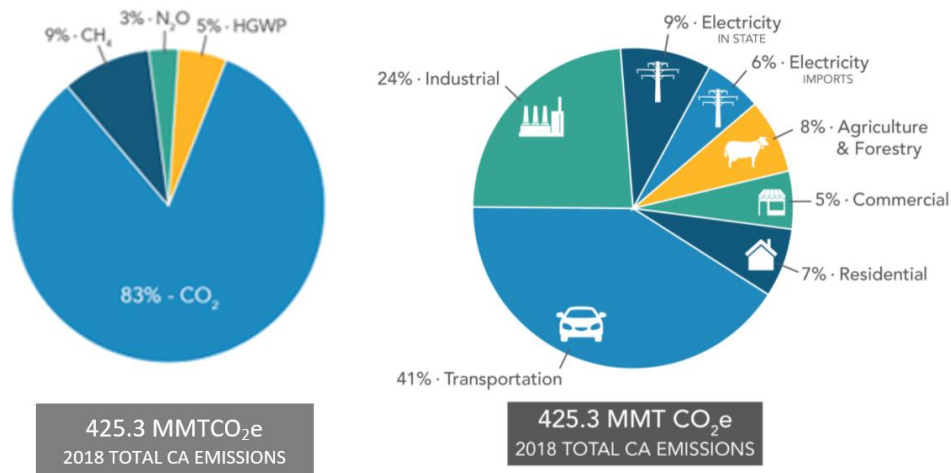
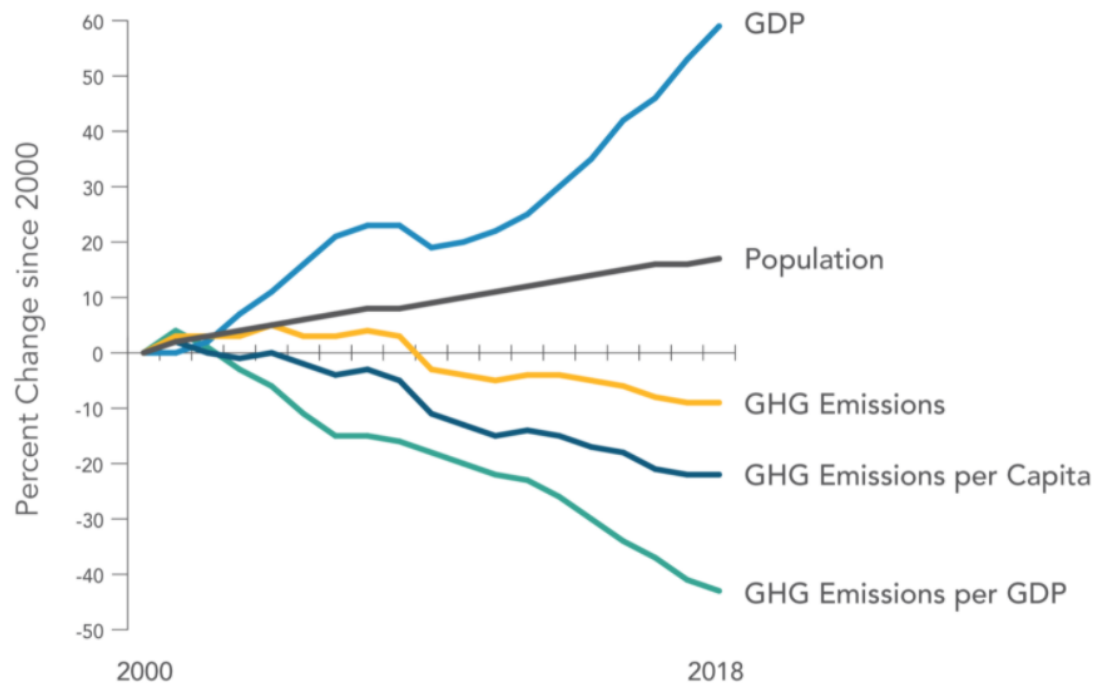


Figure 3.4-2. California 2018 Greenhouse Gas Emissions



Source: ARB 2020b

Figure 3.4-3. Change in California GDP, Population, and GHG Emissions since 2000

AB 32 required ARB to develop a Scoping Plan that describes the approach California will take to achieve the goal of reducing GHG emissions to 1990 levels by 2020, and to update it every 5 years. ARB adopted the first scoping plan in 2008. The second updated plan, *California's 2017 Climate Change Scoping Plan*, adopted on December 14, 2017, reflects the 2030 target established in EO B-30-15 and SB 32. The AB 32 Scoping Plan and the subsequent updates contain the main strategies California will use to reduce GHG emissions.

### 3.4.2.3 Regional Plans

ARB sets regional targets for California's 18 MPOs to use in their Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to plan future projects that will cumulatively achieve GHG reduction goals. Targets are set at a percent reduction of passenger vehicle GHG emissions per person from 2005 levels. The proposed project is included in the RTP/SCS for Southern California Association of Governments (SCAG). The regional reduction target for SCAG is -8% for 2020 -19% for 2035 (ARB 2019).

### 3.4.3 Project Analysis

GHG emissions from transportation projects can be divided into those produced during operation of the project and those produced during construction. The primary GHGs produced by the transportation sector are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs. CO<sub>2</sub> emissions are a product of the combustion of petroleum-based products, like gasoline, in internal combustion engines. Relatively small amounts of CH<sub>4</sub> and N<sub>2</sub>O are emitted during fuel combustion. In addition, a small amount of HFC emissions are included in the transportation sector.

The CEQA Guidelines generally address greenhouse gas emissions as a cumulative impact due to the global nature of climate change (Pub. Resources Code, § 21083(b)(2)). As the California Supreme Court explained, "because of the global scale of climate change, any one project's contribution is unlikely to be significant by itself." (Cleveland National Forest Foundation v. San Diego Assn. of Governments (2017) 3 Cal.5th 497, 512.) In assessing cumulative impacts, it must be determined if a project's incremental effect is "cumulatively considerable" (CEQA Guidelines Sections 15064(h)(1) and 15130).

To make this determination, the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. Although climate change is ultimately a cumulative impact, not every individual project that emits greenhouse gases must necessarily be found to contribute to a significant cumulative impact on the environment.

#### 3.4.3.1 Operational Emissions

The proposed project is designed to create a structurally sound bridge, connecting pedestrians, bicyclists, and motorists to Santa Monica Pier. This type of project generally causes minimal or no increase in operational GHG emissions. Because the project would not increase the number of travel lanes, ramp metering or new signalization, no increase in VMT would occur as result of project implementation. The anticipated 24-month construction period would result in emissions generated from grubbing/land clearing, grading/excavation, drainage/subgrade and bridge construction, paving, and the commuting patterns of construction workers. Project operations under Build Alternatives 1 and 2 (LPA) would be indistinguishable from the No-Build Alternative and would not appreciably change VMT or GHG emissions in the study area. While some GHG emissions during the construction period would be unavoidable, no increase in operational GHG emissions is expected.

### 3.4.3.2 Construction Emissions

Construction GHG emissions would result from material processing, on-site construction equipment, and traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases. Discussed further in Section 2.5, *Traffic and Transportation* of this EIR/EA.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be offset to some degree by longer intervals between maintenance and rehabilitation activities.

Construction is anticipated to begin in early 2025 and last approximately 24 months. Temporary construction emissions would result from on-site activities such as grubbing/land clearing, grading/excavating, drainage/subgrade construction, bridge construction, and paving as well as off-site activities, including trips associated with haul trucks and commuting construction workers. Pollutant emissions would vary daily, depending on the level of activity, specific operations, and prevailing weather conditions.

Construction emissions were estimated using the latest Sacramento Metropolitan Air Quality Management District's Road Construction Emissions Model (RCEM), Version 9.0.0. The emissions presented are based on the worst-case maximum daily construction emissions. Overall project construction emissions of GHGs would be 2,539 metric tons CO<sub>2</sub>e (comprising CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) over the approximately 24-month construction period.

All construction contracts include Caltrans Standard Specifications Section 7-1.02A and 7-1.02C, Emissions Reduction, which require contractors to comply with all laws applicable to the project and to certify they are aware of and will comply with all ARB emission reduction regulations; and Section 14-9.02, Air Pollution Control, which requires contractors to comply with all air pollution control rules, regulations, ordinances, and statutes. Certain common regulations, such as equipment idling restrictions, that reduce construction vehicle emissions also help reduce GHG emissions.

### 3.4.4 CEQA Conclusion

While the proposed project will result in GHG emissions during construction, it is anticipated that the project will not result in any increase in operational GHG emissions. The proposed project does not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. With implementation of construction GHG-reduction measures, the impact would be less than significant.

Caltrans is firmly committed to implementing measures to help reduce GHG emissions. These measures are outlined in the following section.

### 3.4.4.1 Greenhouse Gas Reduction Strategies

#### Statewide Efforts

Major sectors of the California economy, including transportation, will need to reduce emissions to meet the 2030 and 2050 GHG emissions targets. Former Governor Edmund G. Brown promoted GHG reduction goals that involved (1) reducing today's petroleum use in cars and trucks by up to 50 percent; (2) increasing from one-third to 50 percent our electricity derived from renewable sources; (3) doubling the energy efficiency savings achieved at existing buildings and making heating fuels cleaner; (4) reducing the release of methane, black carbon, and other short-lived climate pollutants; (5) managing farms and rangelands, forests, and wetlands so they can store carbon; and (6) periodically updating the state's climate adaptation strategy, *Safeguarding California*.

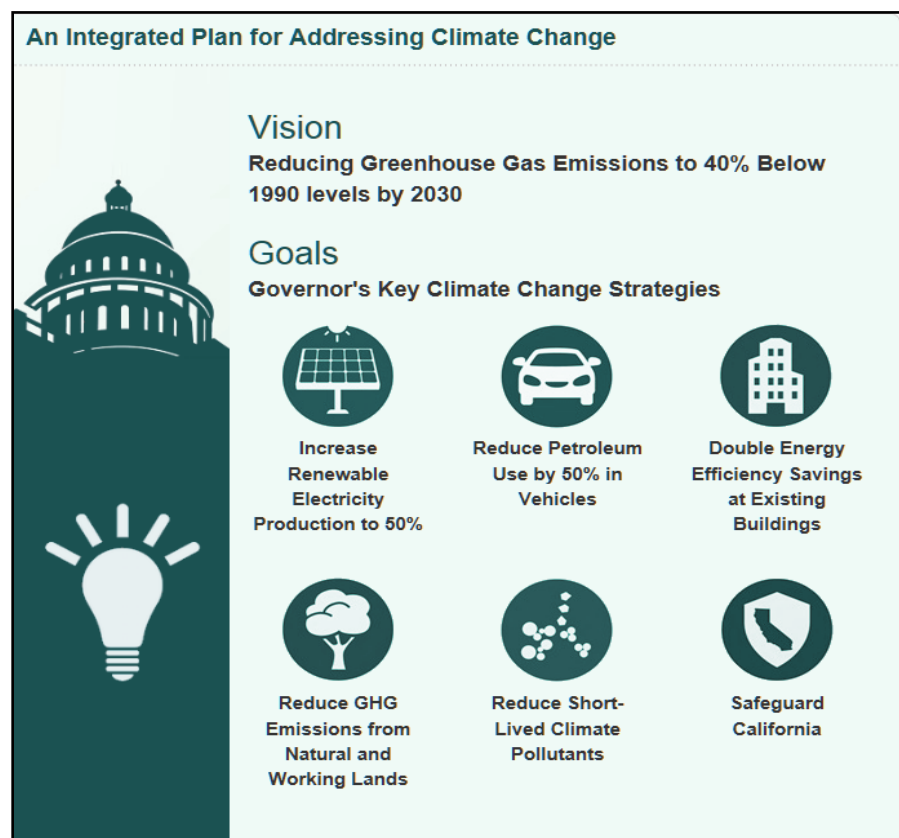


Figure 3.4-4. California Climate Strategy

The transportation sector is integral to the people and economy of California. To achieve GHG emission reduction goals, it is vital that the state build on past successes in reducing criteria and toxic air pollutants from transportation and goods movement. GHG emission reductions will come from cleaner vehicle technologies, lower-carbon fuels, and reduction of VMT. A key state goal for reducing GHG emissions is to reduce today's petroleum use in cars and trucks by up to 50 percent by 2030 (State of California 2019).

In addition, SB 1386 (Wolk 2016) established as state policy the protection and management of natural and working lands and requires state agencies to consider that policy in their own decision making. Trees and vegetation on forests, rangelands, farms, and wetlands remove carbon dioxide from the atmosphere through biological processes and sequester the carbon in above- and below-ground matter.

## **Caltrans Activities**

Caltrans continues to be involved on the Governor's Climate Action Team as the ARB works to implement EOs S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. EO B-30-15, issued in April 2015, and SB 32 (2016), set an interim target to cut GHG emissions to 40 percent below 1990 levels by 2030. The following major initiatives are underway at Caltrans to help meet these targets.

### **California Transportation Plan (CTP 2040)**

The California Transportation Plan (CTP) is a statewide, long-range transportation plan to meet our future mobility needs and reduce GHG emissions. In 2016, Caltrans completed the *California Transportation Plan 2040*, which establishes a new model for developing ground transportation systems, consistent with CO<sub>2</sub> reduction goals. It serves as an umbrella document for all the other statewide transportation planning documents. Over the next 25 years, California will be working to improve transit and reduce long-run repair and maintenance costs of roadways and developing a comprehensive assessment of climate-related transportation demand management and new technologies rather than continuing to expand capacity on existing roadways.

SB 391 (Liu 2009) requires the CTP to meet California's climate change goals under AB 32. Accordingly, the CTP 2040 identifies the statewide transportation system needed to achieve maximum feasible GHG emission reductions while meeting the state's transportation needs. While MPOs have primary responsibility for identifying land use patterns to help reduce GHG emissions, CTP 2040 identifies additional strategies in Pricing, Transportation Alternatives, Mode Shift, and Operational Efficiency.

### **Caltrans Strategic Management Plan**

The Strategic Management Plan, released in 2015, creates a performance-based framework to preserve the environment and reduce GHG emissions, among other goals. Specific performance targets in the plan that will help to reduce GHG emissions include:

- Increasing percentage of non-auto mode share
- Reducing VMT
- Reducing Caltrans' internal operational (buildings, facilities, and fuel) GHG emissions



## Funding and Technical Assistance Programs

In addition to developing plans and performance targets to reduce GHG emissions, Caltrans also administers several sustainable transportation planning grants. These grants encourage local and regional multimodal transportation, housing, and land use planning that furthers the region's RTP/SCS; contribute to the State's GHG reduction targets and advance transportation-related GHG emission reduction project types/strategies; and support other climate adaptation goals (e.g., *Safeguarding California*).

## Caltrans Policy Directives and Other Initiatives

Caltrans Director's Policy 30 (DP-30) Climate Change (June 22, 2012) is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. *Caltrans Activities to Address Climate Change* (April 2013) provides a comprehensive overview of Caltrans' statewide activities to reduce GHG emissions resulting from agency operations.

### 3.4.4.2 Adaptation

Reducing GHG emissions is only one part of an approach to addressing climate change. Caltrans must plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and their intensity, and in the frequency and intensity of wildfires. Flooding and erosion can damage or wash out roads; longer periods of intense heat can buckle pavement and railroad tracks; storm surges combined with a rising sea level can inundate highways. Wildfire can directly burn facilities and indirectly cause damage when rain falls on denuded slopes that landslide after a fire. Effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned. Accordingly, Caltrans must consider these types of climate stressors in how highways are planned, designed, built, operated, and maintained.

## Federal Efforts

Under NEPA assignment, Caltrans is obligated to comply with all applicable federal environmental laws and FHWA NEPA regulations, policies, and guidance.

The U.S. Global Change Research Program (USGCRP) delivers a report to Congress and the president every 4 years, in accordance with the Global Change Research Act of 1990 (15 U.S.C. ch. 56A § 2921 et seq). The *Fourth National Climate Assessment*, published in 2018, presents the foundational science and the "human welfare, societal, and environmental elements of climate change and variability for 10 regions and 18 national topics, with particular attention paid to observed and projected risks, impacts, consideration of risk reduction, and implications under different mitigation pathways." Chapter 12, "Transportation," presents a key discussion of vulnerability assessments. It notes that "asset owners and operators have increasingly conducted more focused studies of particular assets that consider multiple climate hazards and scenarios in the context of asset-specific information, such as design lifetime" (USGCRP 2018).

The U.S. DOT Policy Statement on Climate Adaptation in June 2011 committed the federal Department of Transportation to “integrate consideration of climate change impacts and adaptation into the planning, operations, policies, and programs of DOT in order to ensure that taxpayer resources are invested wisely, and that transportation infrastructure, services and operations remain effective in current and future climate conditions” (U.S. DOT 2011).

FHWA order 5520 (*Transportation System Preparedness and Resilience to Climate Change and Extreme Weather Events*, December 15, 2014) established FHWA policy to strive to identify the risks of climate change and extreme weather events to current and planned transportation systems. FHWA has developed guidance and tools for transportation planning that foster resilience to climate effects and sustainability at the federal, state, and local levels (FHWA 2019).

## State Efforts

Climate change adaptation for transportation infrastructure involves long-term planning and risk management to address vulnerabilities in the transportation system. *California’s Fourth Climate Change Assessment* (2018) is the state’s effort to “translate the state of climate science into useful information for action” in a variety of sectors at both statewide and local scales. It adopts the following key terms used widely in climate change analysis and policy documents:

*Adaptation* to climate change refers to adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.

*Adaptive capacity* is the “combination of the strengths, attributes, and resources available to an individual, community, society, or organization that can be used to prepare for and undertake actions to reduce adverse impacts, moderate harm, or exploit beneficial opportunities.”

*Exposure* is the presence of people, infrastructure, natural systems, and economic, cultural, and social resources in areas that are subject to harm.

*Resilience* is the “capacity of any entity – an individual, a community, an organization, or a natural system – to prepare for disruptions, to recover from shocks and stresses, and to adapt and grow from a disruptive experience”. Adaptation actions contribute to increasing resilience, which is a desired outcome or state of being.

*Sensitivity* is the level to which a species, natural system, or community, government, etc., would be affected by changing climate conditions.

*Vulnerability* is the “susceptibility to harm from exposure to stresses associated with environmental and social change and from the absence of capacity to adapt.” Vulnerability can increase because of physical (built and environmental), social, political, and/or economic factor(s). These factors include, but are not limited to: ethnicity, class, sexual orientation and identification, national origin, and income inequality. Vulnerability is often defined as the combination of sensitivity and adaptive capacity as affected by the level of exposure to changing climate.

Several key state policies have guided climate change adaptation efforts to date. Recent state publications produced in response to these policies draw on these definitions.

EO S-13-08, issued by then-governor Arnold Schwarzenegger in November 2008, focused on sea-level rise and resulted in the *California Climate Adaptation Strategy* (2009), updated in 2014 as *Safeguarding California: Reducing Climate Risk* (Safeguarding California Plan). The Safeguarding California Plan offers policy principles and recommendations and continues to be revised and augmented with sector-specific adaptation strategies, ongoing actions, and next steps for agencies.

EO S-13-08 also led to the publication of a series of sea-level rise assessment reports and associated guidance and policies. These reports formed the foundation of an interim *State of California Sea-Level Rise Interim Guidance Document* (SLR Guidance) in 2010, with instructions for how state agencies could incorporate “sea-level rise (SLR) projections into planning and decision making for projects in California” in a consistent way across agencies. The guidance was revised and augmented in 2013. *Rising Seas in California – An Update on Sea-Level Rise Science* was published in 2017 and its updated projections of sea-level rise and new understanding of processes and potential impacts in California were incorporated into the *State of California Sea-Level Rise Guidance Update* in 2018.

EO B-30-15, signed in April 2015, requires state agencies to factor climate change into all planning and investment decisions. This EO recognizes that effects of climate change other than sea-level rise also threaten California’s infrastructure. At the direction of EO B-30-15, the Office of Planning and Research published *Planning and Investing for a Resilient California: A Guidebook for State Agencies* in 2017, to encourage a uniform and systematic approach. Representatives of Caltrans participated in the multi-agency, multidisciplinary technical advisory group that developed this guidance on how to integrate climate change into planning and investment.

AB 2800 (Quirk 2016) created the multidisciplinary Climate-Safe Infrastructure Working Group, which in 2018 released its report, *Paying it Forward: The Path Toward Climate-Safe Infrastructure in California*. The report provides guidance to agencies on how to address the challenges of assessing risk in the face of inherent uncertainties still posed by the best available science on climate change. It also examines how state agencies can use infrastructure planning, design, and implementation processes to address the observed and anticipated climate change impacts.

## **Caltrans Adaptation Efforts**

### **Caltrans Vulnerability Assessments**

Caltrans is conducting climate change vulnerability assessments to identify segments of the State Highway System vulnerable to climate change effects including precipitation, temperature, wildfire, storm surge, and sea-level rise. The approach to the vulnerability assessments was tailored to the practices of a transportation agency, and involves the following concepts and actions:

- *Exposure* – Identify Caltrans assets exposed to damage or reduced service life from expected future conditions.
- *Consequence* – Determine what might occur to system assets in terms of loss of use or costs of repair.
- *Prioritization* – Develop a method for making capital programming decisions to address identified risks, including considerations of system use and/or timing of expected exposure.

The climate change data in the assessments were developed in coordination with climate change scientists and experts at federal, state, and regional organizations at the forefront of climate science. The findings of the vulnerability assessments will guide analysis of at-risk assets and development of adaptation plans to reduce the likelihood of damage to the State Highway System, allowing Caltrans to both reduce the costs of storm damage and to provide and maintain transportation that meets the needs of all Californians.

In 2019 Caltrans District 7 completed two documents developed to describe the work completed for the District 7 vulnerability assessment, the District 7 Summary Report and District 7 Technical Report. The Summary Report provides a high-level overview on methodology, the potential implications of climate change to Caltrans assets and how climate data can be applied in decision-making. It is intended to orient nontechnical readers on how climate change may affect the State Highway System in District 7. The District 7 Technical Report was developed to describe the work completed for the District 7 vulnerability assessment.

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## **Chapter 4**   Comments and Coordination

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Early and continuing coordination with the general public and appropriate public agencies is an essential part of the environmental process. It helps the sponsoring and reviewing agencies to determine the necessary scope of environmental documentation and the level of analysis required. It also helps them identify potential impacts and mitigation measures and related environmental requirements. Agency consultation and public participation for this Project have been accomplished through a variety of formal and informal methods, including Project Development Team meetings, interagency coordination meetings, stakeholder meetings, and public scoping meetings and workshops.

This chapter summarizes the results of California Department of Transportation (Caltrans) and the City of Santa Monica (City) efforts to identify, address, and resolve Project-related issues through early and continuing coordination.

### **4.1   Notice of Preparation and Scoping Meeting**

In accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a notice of preparation (NOP) was distributed October 22, 2019, to responsible and trustee agencies as well as private organizations and individuals who may have an interest in the proposed Project. The purpose of the NOP was to provide notification that the Caltrans and the City intended to prepare a Recirculated Environmental Impact Report/Environmental Assessment (Recirculated EIR/EA) for the proposed Project and solicit guidance on the scope and content of the document. Approximately 29 copies of the NOP (see Figure 4-1 for a copy of the NOP) were distributed to various agencies, organizations, and individuals. The NOP was also posted on the City of Santa Monica and State Clearinghouse websites.

A Project scoping meeting for the proposed Project was held on October 30, 2019, from 5:30 p.m. to 8 p.m. in the Ken Edwards Center (1527 Fourth Street, Santa Monica, CA 90401). The meeting was offered to provide information regarding the Project, announce the start of the environmental process, and discuss and record comments from community members about proposed improvements to the Santa Monica Pier Bridge. The following four handouts were made available to the public:

- Meeting agenda
- Notice of preparation
- Public comments options
- Comment card

The meeting began at 5:30 p.m.; an open house followed with an informal presentation. Attendees were able to walk around the room and look at displays with maps of the Project area, alternative improvements, and an overview of the environmental process. Members of the Project team were available to clarify details regarding the proposed improvements and answer questions.

**Figure 4-1. Notice of Preparation**

CITY OF SANTA MONICA  
PUBLIC WORKS DEPARTMENT  
ENGINEERING & STREET SERVICES DIVISION  
1437 4<sup>TH</sup> STREET, SUITE 300  
SANTA MONICA, CA 90401

**NOTICE OF PREPARATION/NOTICE OF PUBLIC MEETING FOR A  
RECIRCULATED ENVIRONMENTAL IMPACT REPORT / ENVIRONMENTAL ASSESSMENT FOR THE PROPOSED  
SANTA MONICA PIER BRIDGE REPLACEMENT PROJECT**

**DATE:** October 22, 2019

**TO:** State Clearinghouse, Responsible Agencies, Trustee Agencies, Organizations, and Interested Parties

**LEAD AGENCY:** City of Santa Monica, Civil Engineering Division  
1437 4<sup>th</sup> Street, Suite 300, Santa Monica, CA 90401  
Contact: Omeed Pour  
Phone: (310) 458-2201 ext. 2481  
E-mail: [omeed.pour@smgov.net](mailto:omeed.pour@smgov.net)

The City of Santa Monica intends to prepare a Recirculated Environmental Impact Report/Environmental Assessment (Recirculated EIR/EA) for the Santa Monica Pier Bridge Replacement Project. In accordance with Section 15082 of the State CEQA Guidelines, the City of Santa Monica has prepared this Notice of Preparation to provide Responsible Agencies and other interested parties with information describing the proposal and its potential environmental effects. Potential environmental effects to be analyzed include but not limited to: Aesthetics, Air Quality, Construction Effects, Cultural Resources, Economic/Social Impacts, Geology/Soils, Greenhouse Gas Emissions, Hazards/Hazardous Materials, Hydrology/Water Quality, Land Use/Planning, Noise, Public Services, Recreation, Transportation/Circulation, Utilities/Service Systems, Tribal Resources, and Mandatory Findings of Significance.

**PROJECT APPLICANT:** City of Santa Monica

**PROJECT LOCATION:** The project site is located in the western portion of Los Angeles County, in the City of Santa Monica, beginning at the intersection of Ocean Avenue and Colorado Avenue and extending west to the Santa Monica Pier, Santa Monica, California (see attached **Exhibit A** and **Exhibit B**).

**PROJECT DESCRIPTION:** The project would entail demolition of the existing Pier Bridge structure and replacement with a new Pier Bridge structure. Eight build alternatives are collectively under consideration and are presented in pairs (Alternatives 1 & 2; 3 & 4, etc.). The project description, summary of alternatives, and preliminary plans are described in further detail in attached **Exhibit C**. In addition, please visit the following website for more information about the project: [www.smgov.net/smpierbridge](http://www.smgov.net/smpierbridge)

**REVIEW PERIOD:** As specified by the State CEQA Guidelines, the Notice of Preparation will be circulated for a minimum 30-day public review period through November 26, 2019. The City of Santa Monica welcomes agency and public input during this period regarding the scope and content of environmental information that must be included in the Recirculated EIR/EA. **Comments may be submitted, in writing, by 5:30 p.m. on November 26, 2019** and addressed to:

Omeed Pour, P.E., Civil Engineer  
City of Santa Monica - Civil Engineering Division  
1437 4th Street, Suite 300, Santa Monica, CA 90401  
Phone: (310) 458-2201 ext. 2481, e-mail: [omeed.pour@smgov.net](mailto:omeed.pour@smgov.net)

**SCOPING MEETING:** A public scoping meeting will be held to describe the environmental review process and to receive public comments on the scope and content of the Recirculated EIR/EA. The meeting will be held at the following date, time and location:

**Wednesday October 30, 2019  
5:30 pm – 8:00 pm  
Ken Edwards Center  
1527 4<sup>th</sup> Street, Santa Monica, CA 90401**

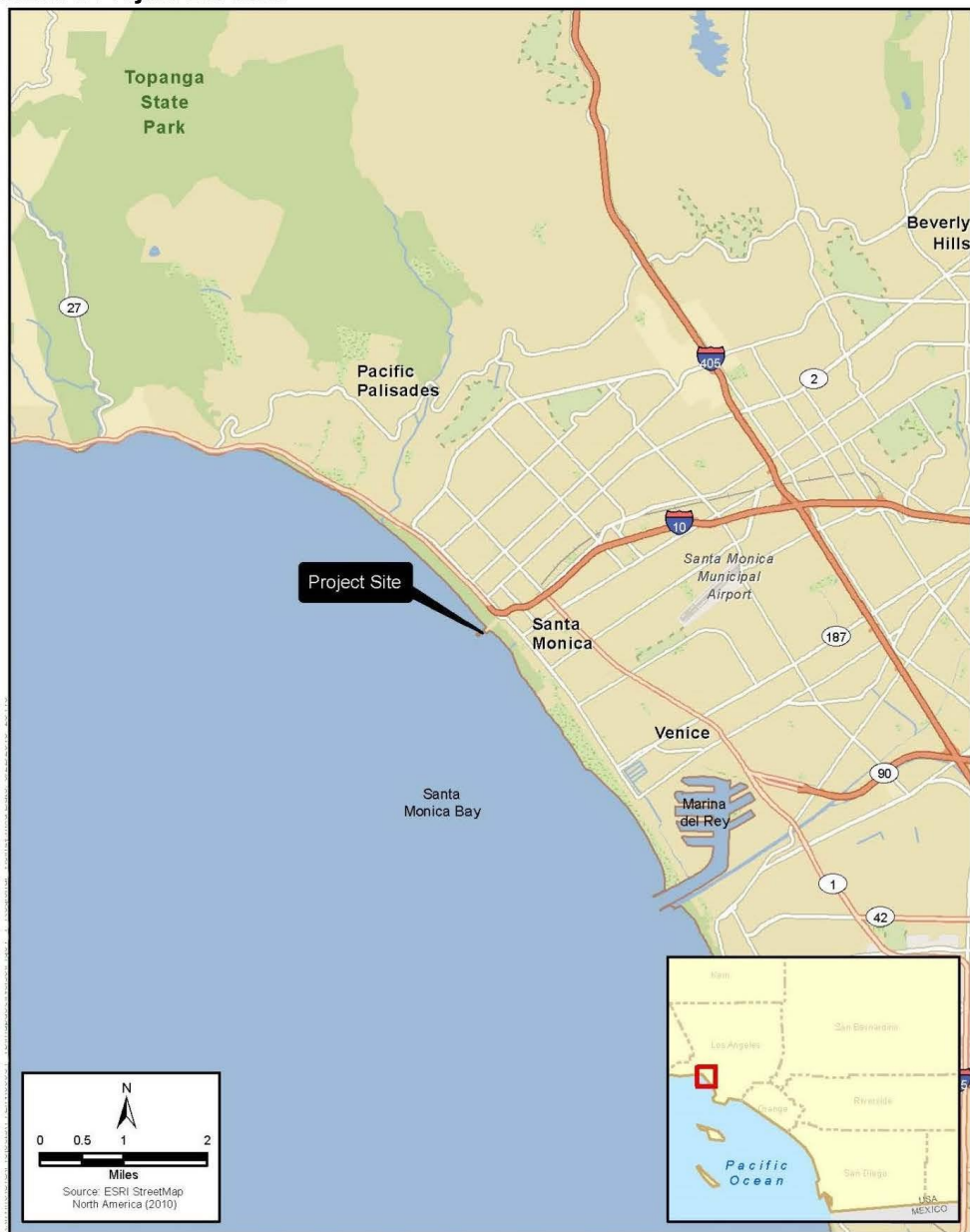
**ESPAÑOL:** Esto es una noticia de la preparación de un reporte sobre el remplazo del puente del muelle de Santa Monica, lo cual puede ser de interés a usted. Para más información, llame a Margaret Talamantes, al número (310) 458-8721.

Omeed Pour, P.E., Civil Engineer, Project Manager

10/18/2019

Date

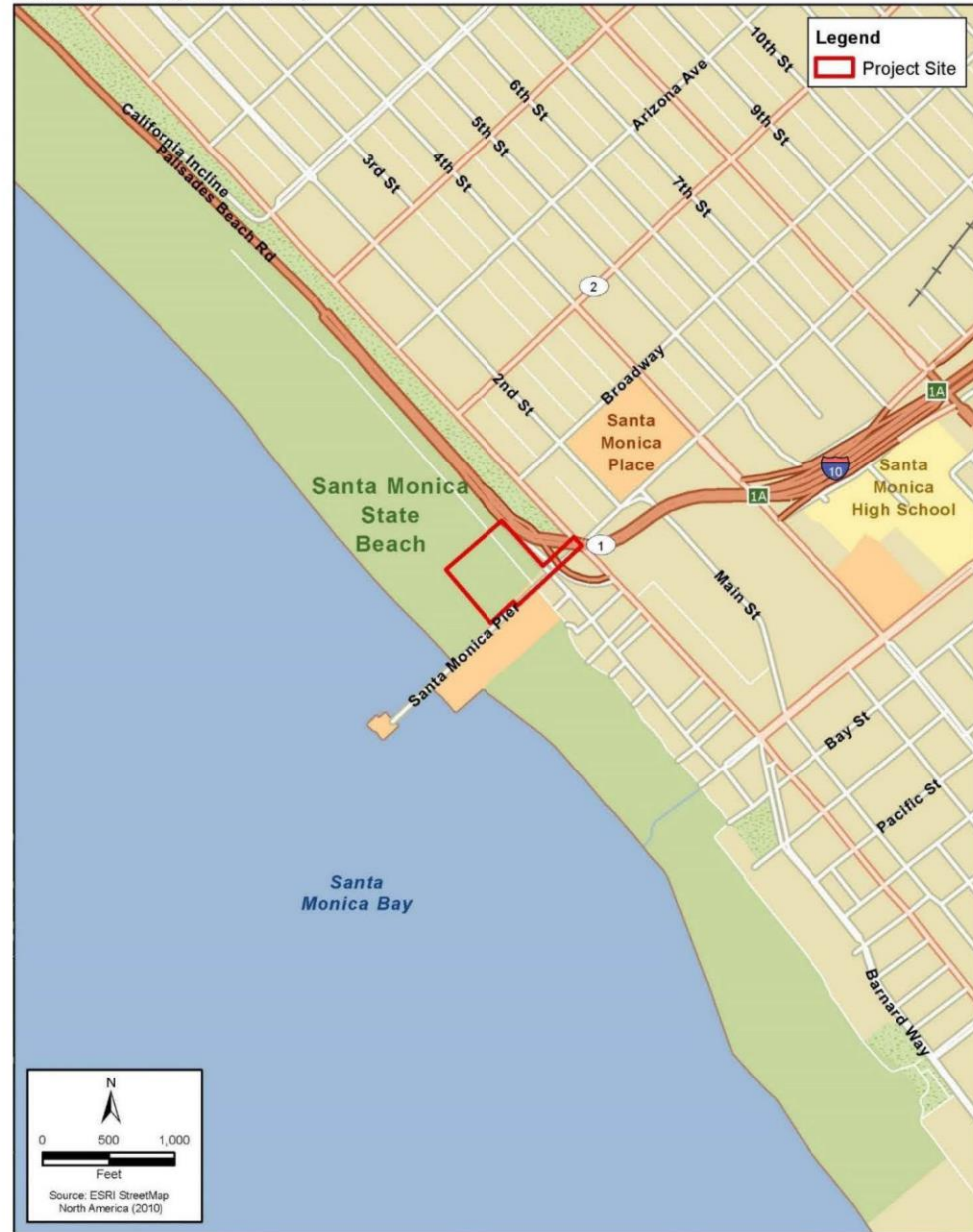
**Exhibit A: Project Location**



Source: ICF 2019



Exhibit B: Project Vicinity



Source: ICF 2019

## EXHIBIT C - PROJECT DESCRIPTION AND ALTERNATIVES

### Project Description

The existing Pier Bridge structure extends west along the alignment of Colorado Avenue, from the intersection of Ocean Avenue and Colorado Avenue, and connects to the Santa Monica Municipal Pier. The Pier Bridge was constructed in 1939 and is near the end of its useful life, with a sufficiency rating of 17 out of a possible 100.

The proposed project would replace the existing Pier Bridge with a new structure designed and constructed to current standards, enhancing vehicular and pedestrian movement. Traffic and pedestrian congestion occurs on the Pier Bridge throughout the year. The pedestrian volumes often exceed the sidewalk capacity on the bridge, forcing pedestrians onto the vehicular lanes, bringing vehicular traffic to a standstill. In the original Draft EIR/EA that was circulated in 2017, three build alternatives were proposed. Substantial commentary was received regarding those alternatives and their associated impacts, which prompted a reevaluation of design options leading to a revised project description and expanded range of alternatives to be evaluated in the Recirculated EIR/EA. These alternatives are summarized below.

In addition to the No Build Alternative (which is required to be considered under CEQA), a total of eight build alternatives will be considered and analyzed in the Recirculated EIR/EA. The alternatives are briefly described below, followed by figures illustrating plan and profile views, as well as cross sections for each alternative.

### Build Alternatives and Locally Preferred Alternative ("The Project")

Eight build alternatives are collectively under consideration, including the Project (Alternative 4). These alternatives are briefly described below and illustrated in the figures that follow. The alternatives are presented in pairs (Alternatives 1 & 2; 3 & 4, etc.), because their basic design parameters are the same, with the differences being primarily related to the north-south placement of the various paths for access by vehicles, bicycles, pedestrians and those with limited mobility.

Among the eight alternatives under consideration, Alternative 4 has been identified as the "locally preferred alternative" and is therefore, for purposes of the Recirculated EIR/EA (REIR/EA), designated as "the Project." The Project (Alternative 4) is believed to best achieve the project objectives, taking into consideration the accommodation of vehicular, bicycle, pedestrian, and Americans with Disabilities Act (ADA) compliant access to/from the Pier Bridge. Upon completion of the review process for the REIR/EA, and in consideration of the comments received during the public circulation of the REIR/EA, a final determination to either adopt the Project (Alternative 4) or select another among the remaining alternatives, will be made.

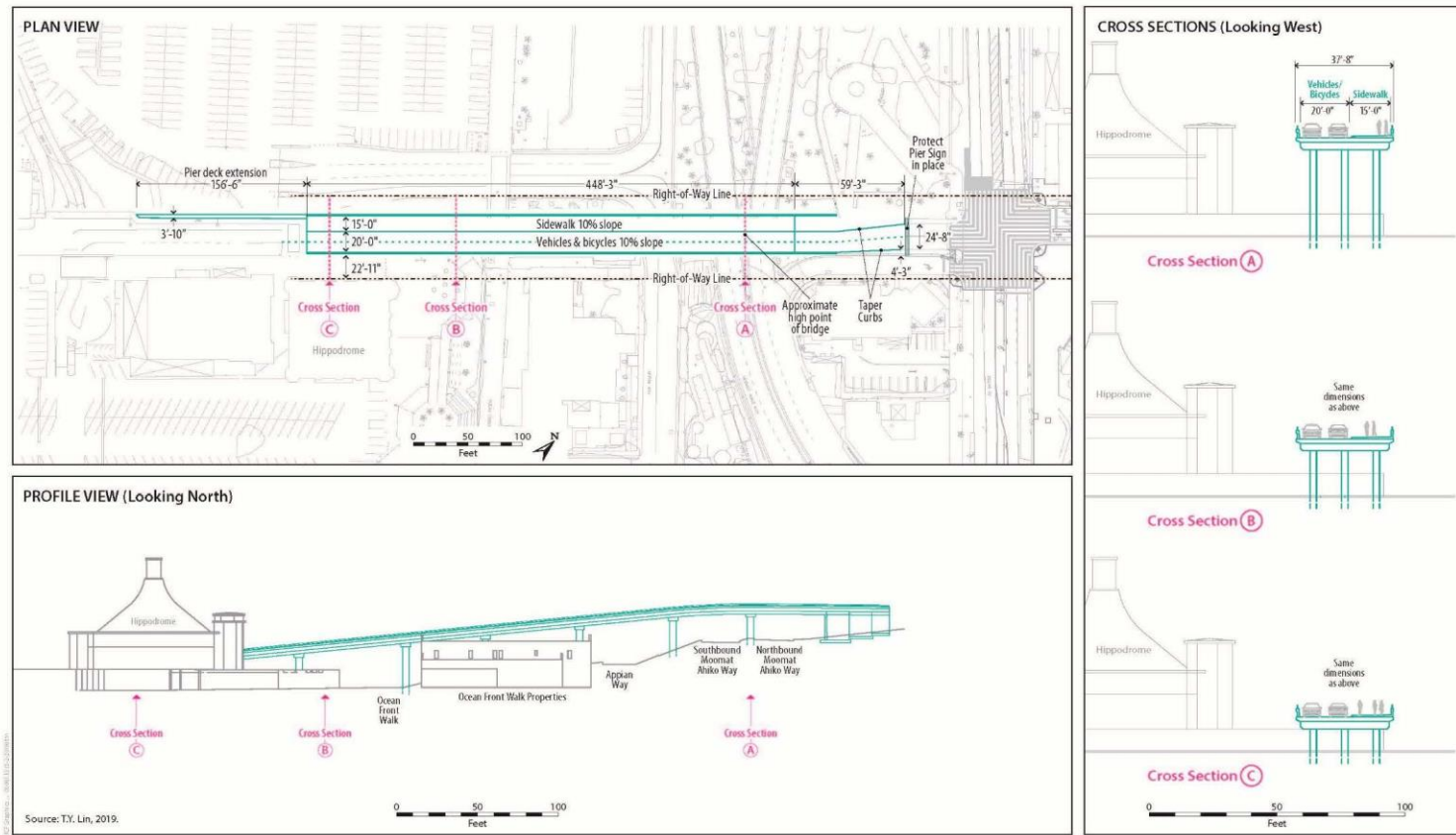
**Alternatives 1 and 2** would provide an in-kind replacement bridge, which would maintain the current paths of access from Ocean Avenue to the Pier, namely, one path for vehicles and bicycles (20'0" wide) and a second path consisting of a sidewalk (15'0" wide). The bridge would continue to descend at a slope of 10% for both paths. Alternative 1 would locate the vehicle/bicycle path on the south side of the bridge, whereas Alternative 2 would locate it on the north side. ADA compliant access to the Pier would remain available through existing routes.

**Alternatives 3 and 4** (The Project) would also provide an in-kind bridge replacement, but these two options would provide a vehicle/bicycle (20'0" wide) and sidewalk (15'0" wide) bridge with a separate path for pedestrians and those with limited mobility (10'0" wide). As in Alternatives 1 and 2, both the vehicle/bicycle and sidewalk bridge would descend at a slope of 10%, but the additional pedestrian/ADA path would descend at a slope of 5%. The shallower slope would require installation of elevators and stairs, located adjacent to Ocean Front Walk, to provide access to the pier deck and beach levels. Alternative 3 would locate the pedestrian/ADA path on the north side of the bridge, whereas Alternative 4 would locate it on the south side.

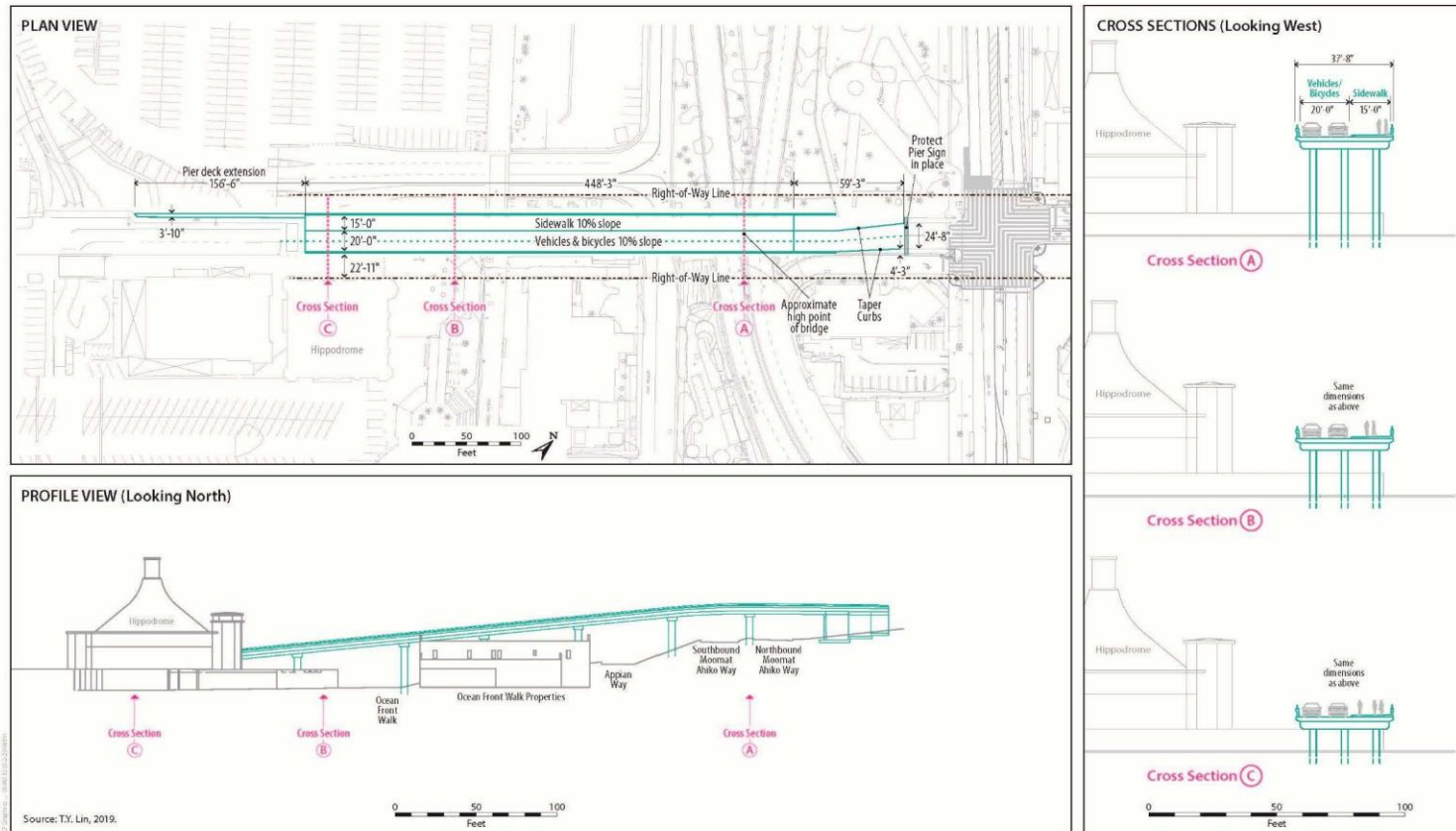
**Alternatives 5 and 6** would expand the means of access for pedestrians and those with limited mobility. These two options would provide one bridge for vehicles and bicycles (20'0" wide) at a slope of 10%, and a separate path (15'0" wide) for pedestrians and those with limited mobility at a slope of 5%. Elevators and stairs, located adjacent to Ocean Front Walk, would provide access to the pier deck and beach levels. Alternative 5 would locate the pedestrian/ADA path on the south side of the bridge, whereas Alternative 6 would locate it on the north side.

**Alternatives 7 and 8** would constitute the widest of the potential bridge replacement options. One path (34'0" wide) would be provided for vehicles and bicycles, and a sidewalk (12'1" wide) would be provided. Both the vehicle/bicycle and sidewalk paths would descend at a slope of 10%. A third path (10'0" wide) would be provided for pedestrians and those with limited mobility, descending at a slope of 5%. The elevators and stairs for this path would again be located adjacent to Ocean Front Walk. Alternative 7 would locate the pedestrian/ADA path on the south side and the vehicle/bicycle path in the middle of the bridge, whereas Alternative 8 would locate the pedestrian/ADA path on the north side and the vehicle/bicycle path on the south side.

**No Build Alternative** This alternative would leave the Pier Bridge as it currently exists.

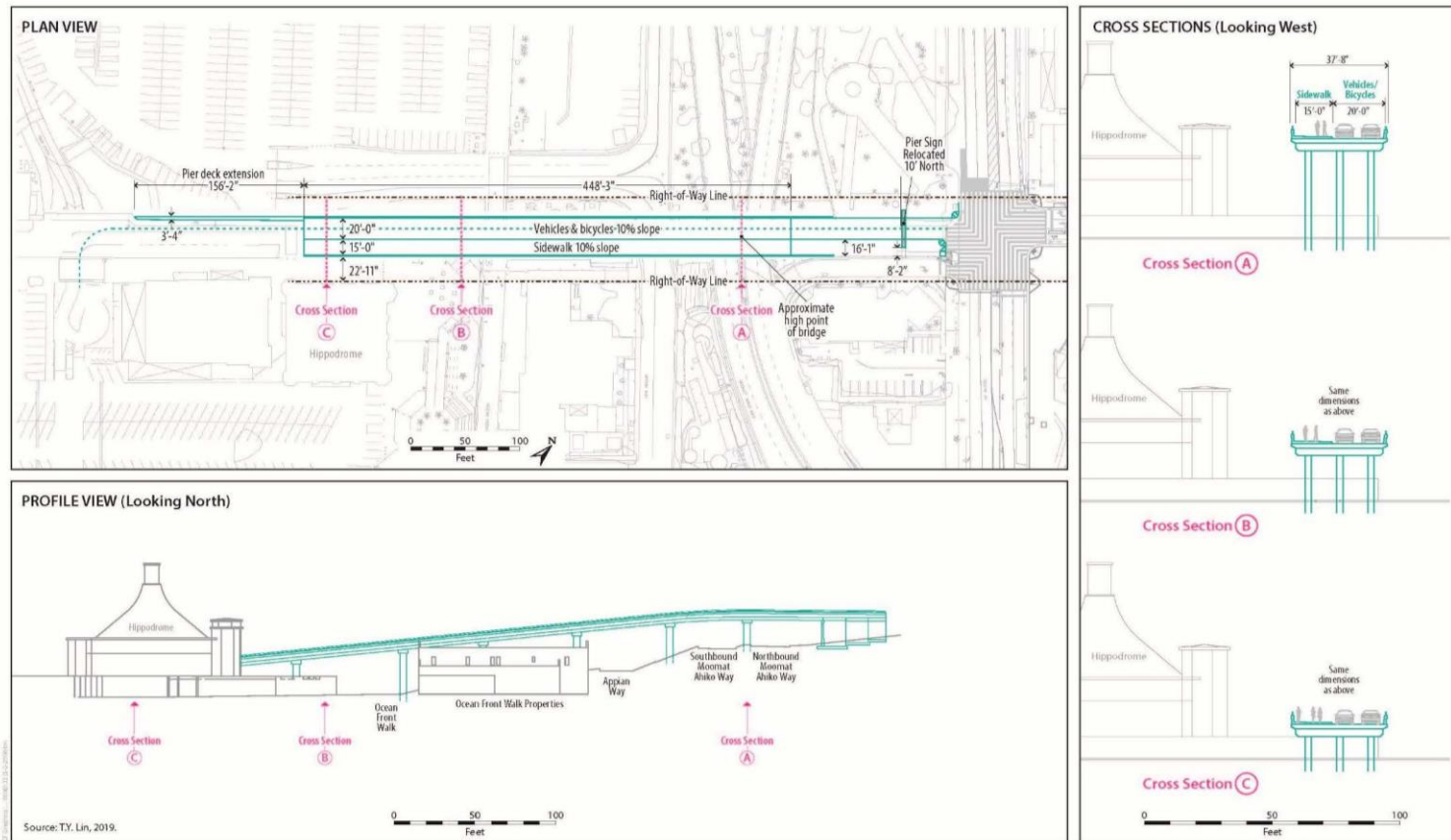
**Alternative 1: In-Kind Pier Bridge Replacement with Northside Sidewalk**

## Alternative 1: In-Kind Pier Bridge Replacement with Northside Sidewalk

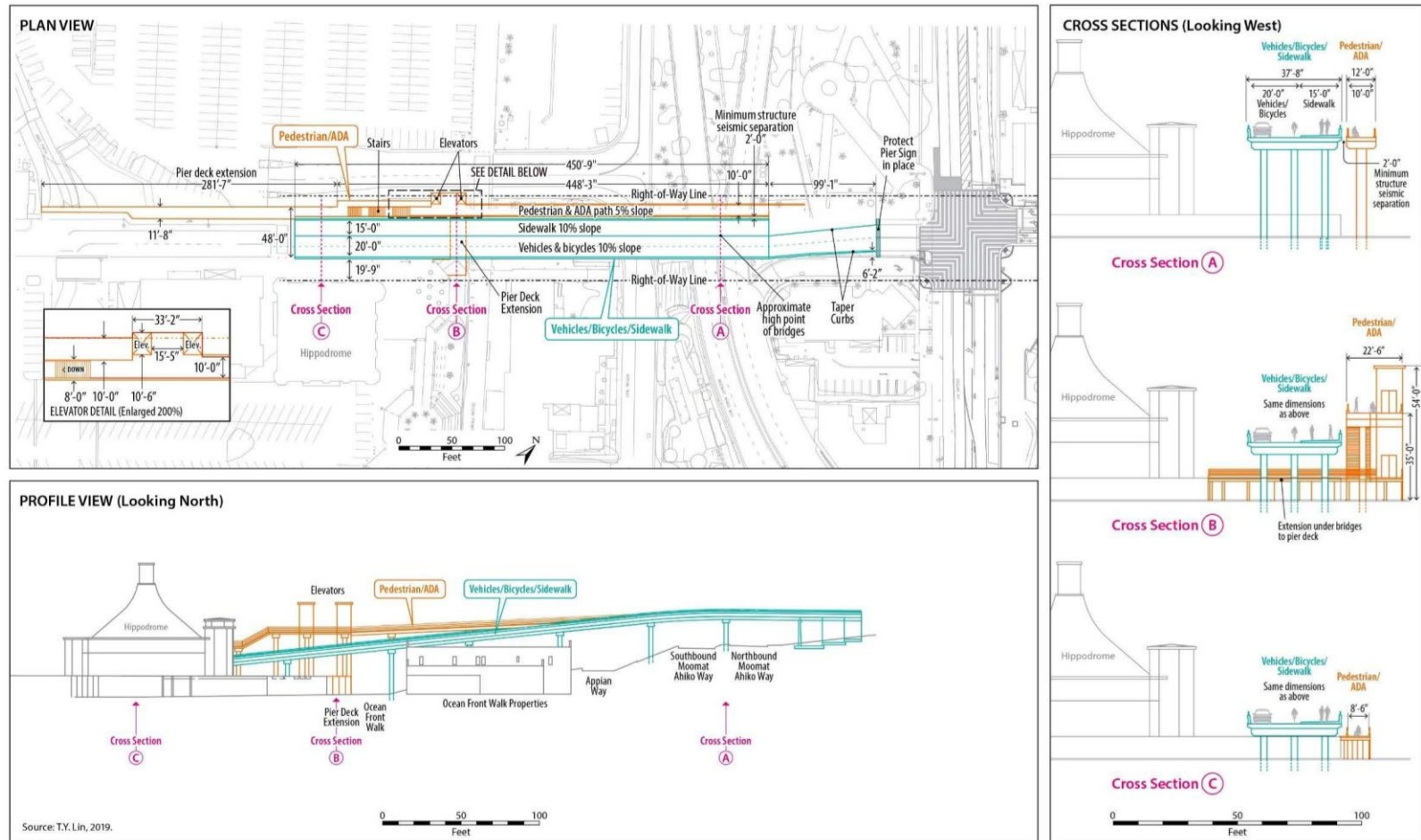




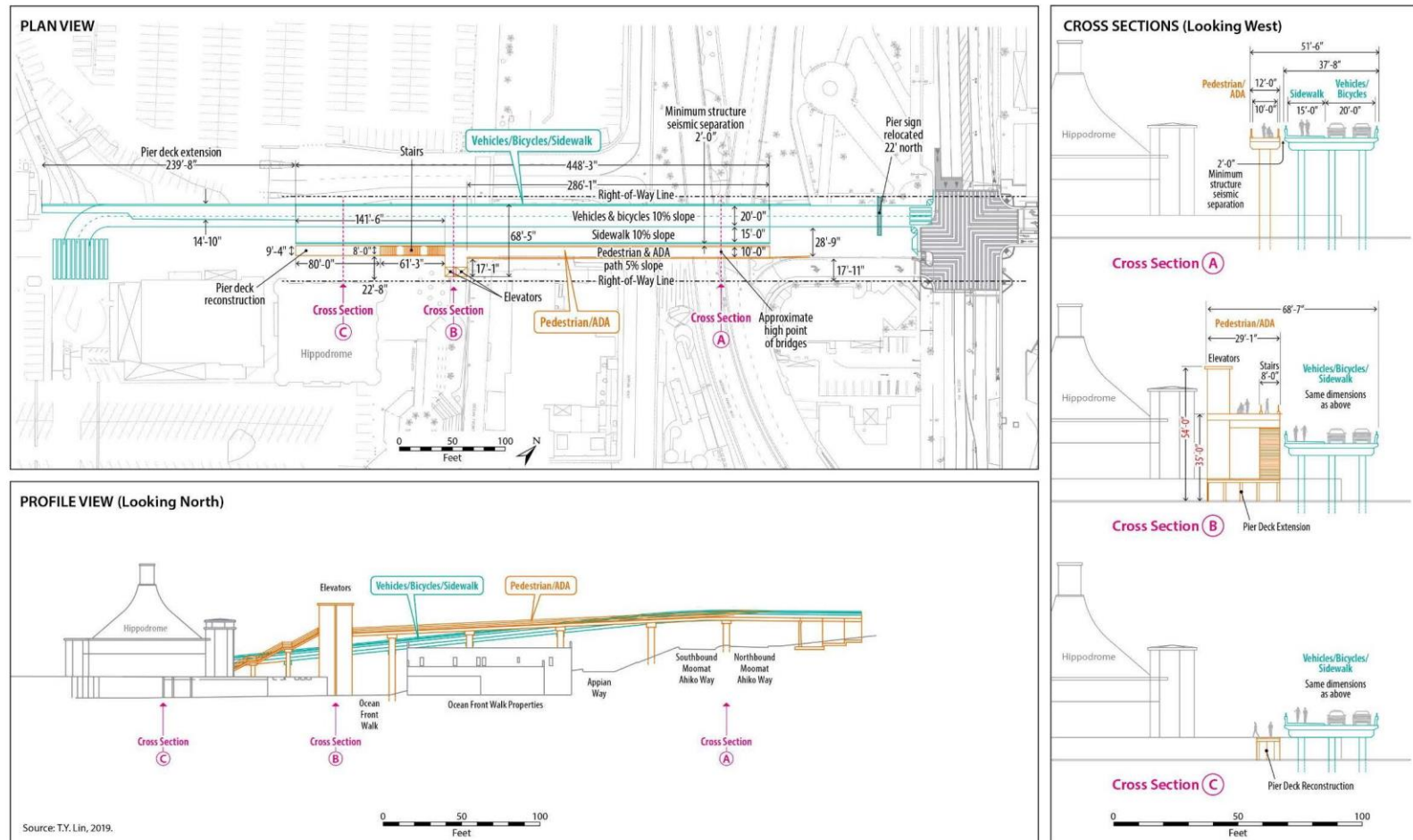
## Alternative 2: In-Kind Pier Bridge Replacement with Southside Sidewalk



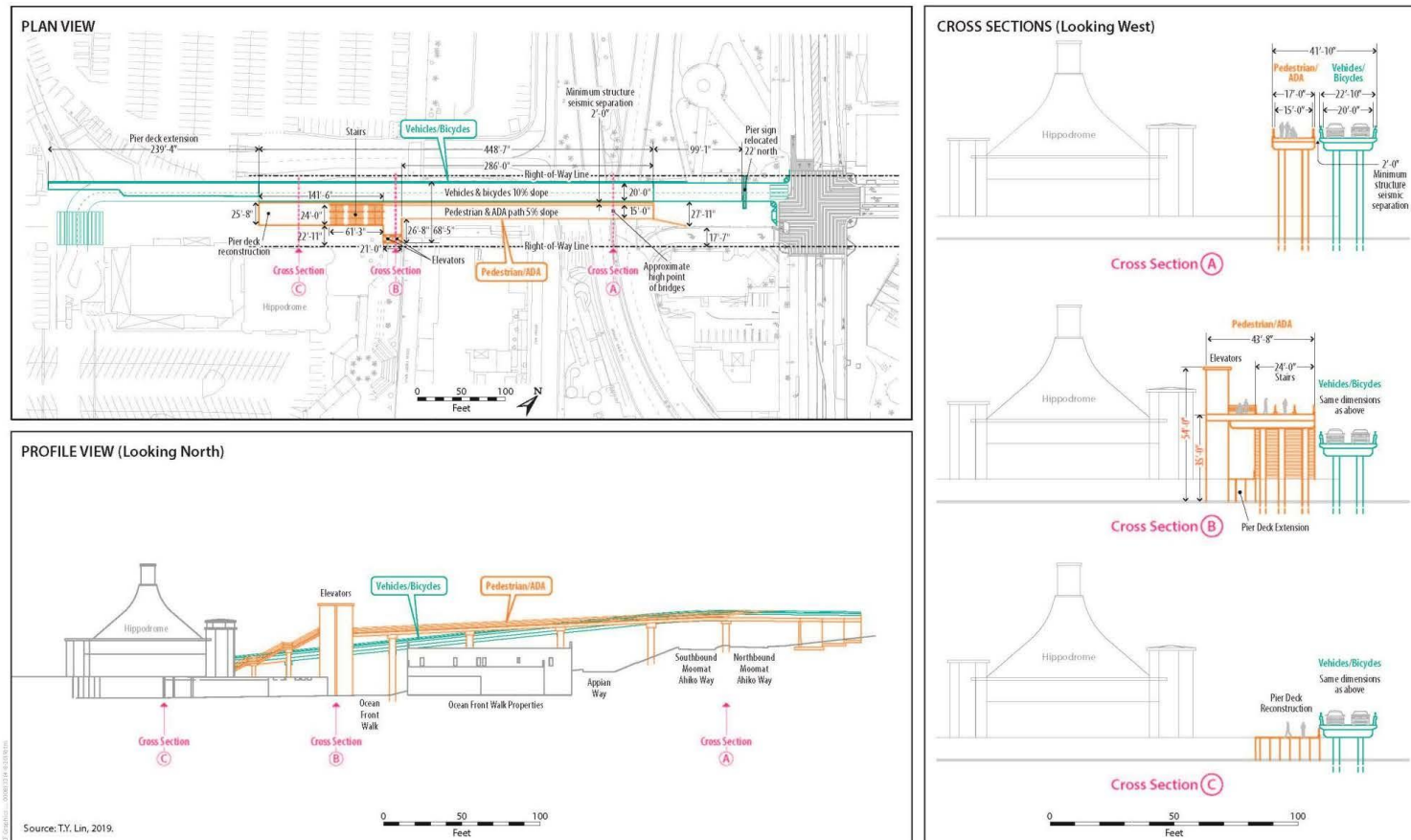
### Alternative 3: In-Kind Pier Bridge Replacement with Northside Pedestrian/ADA Path



### Alternative 4 (The Project): In-Kind Pier Bridge Replacement with Southside Pedestrian/ADA Path

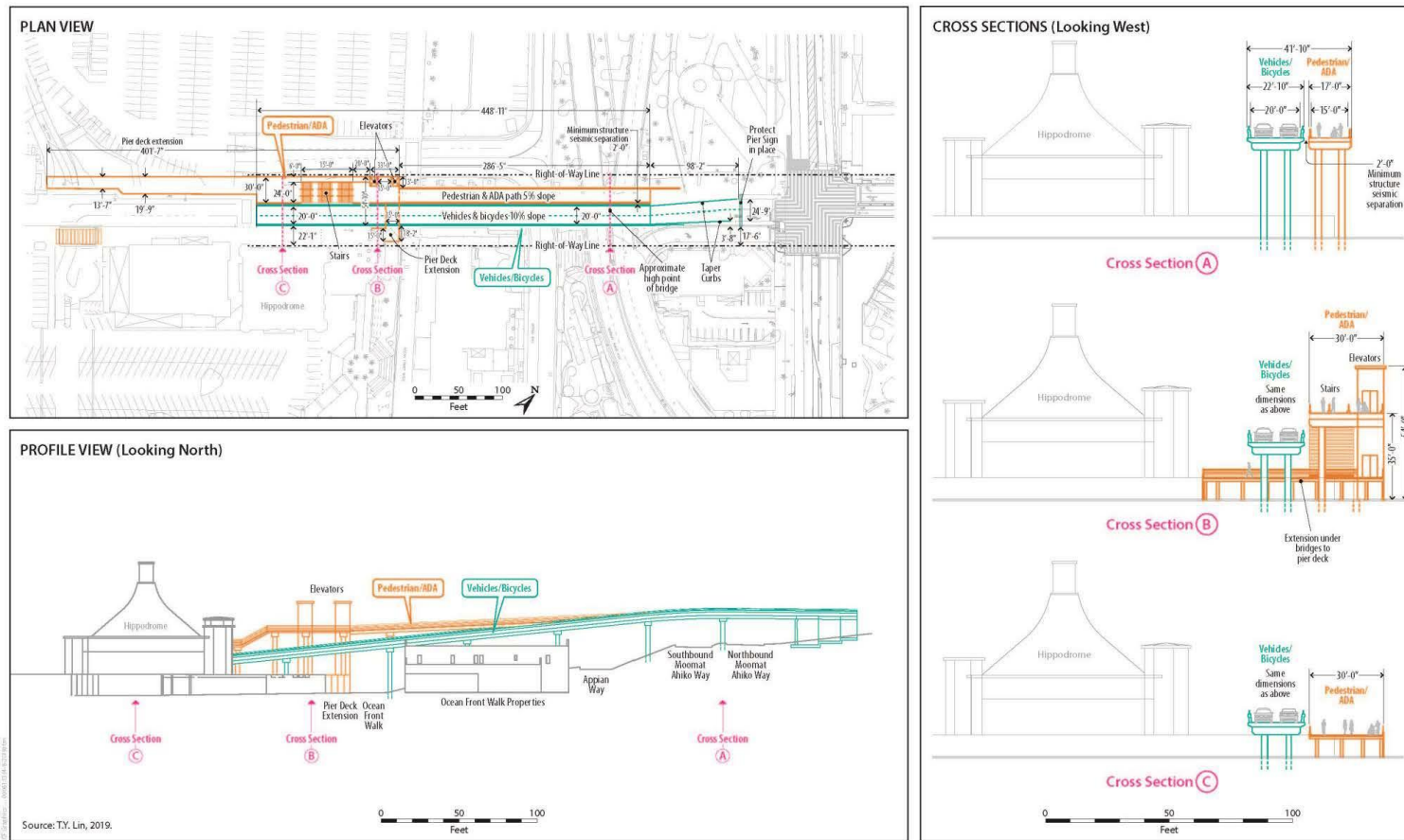


### Alternative 5: Narrow Pier Bridge Replacement with Southside Pedestrian/ADA Path

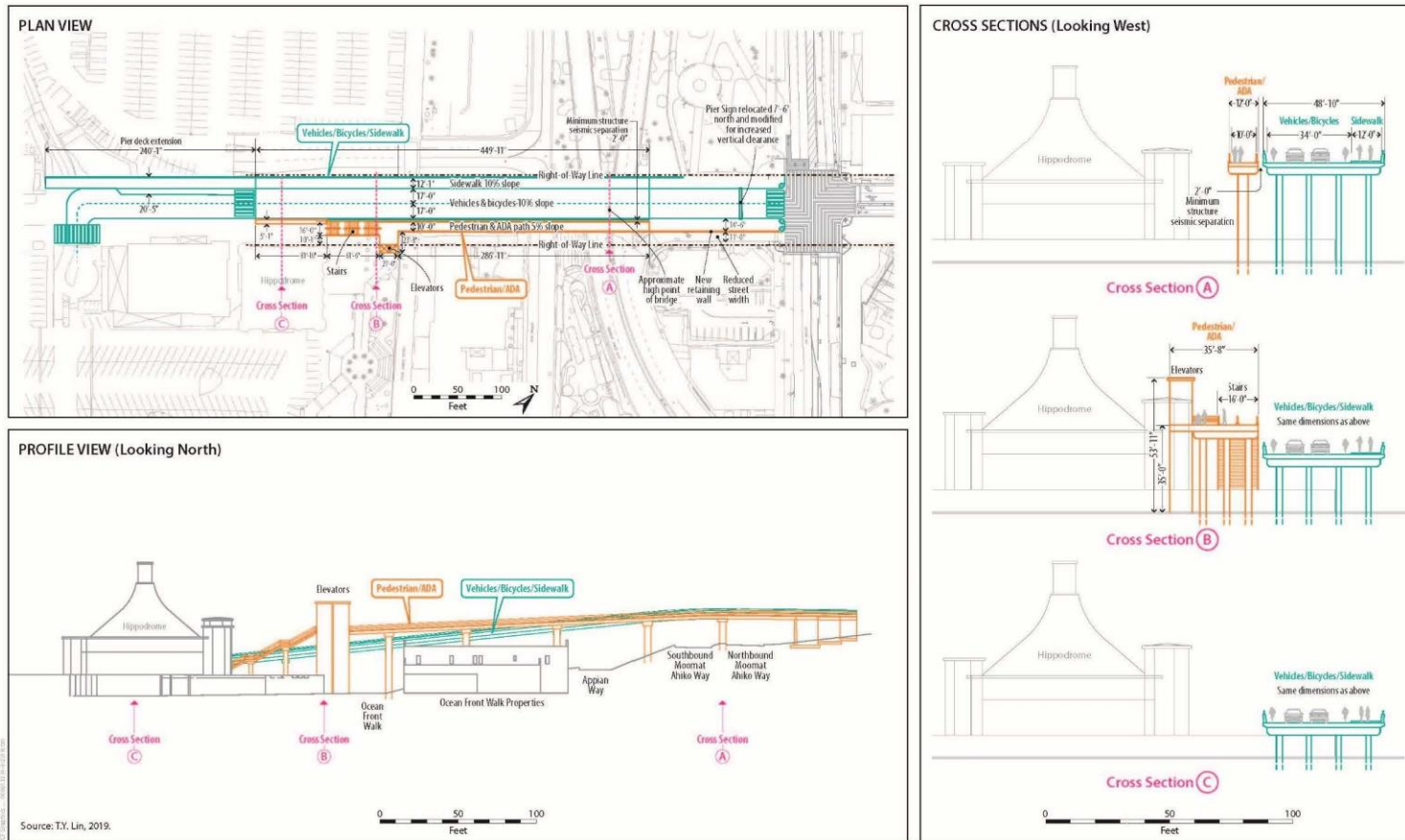




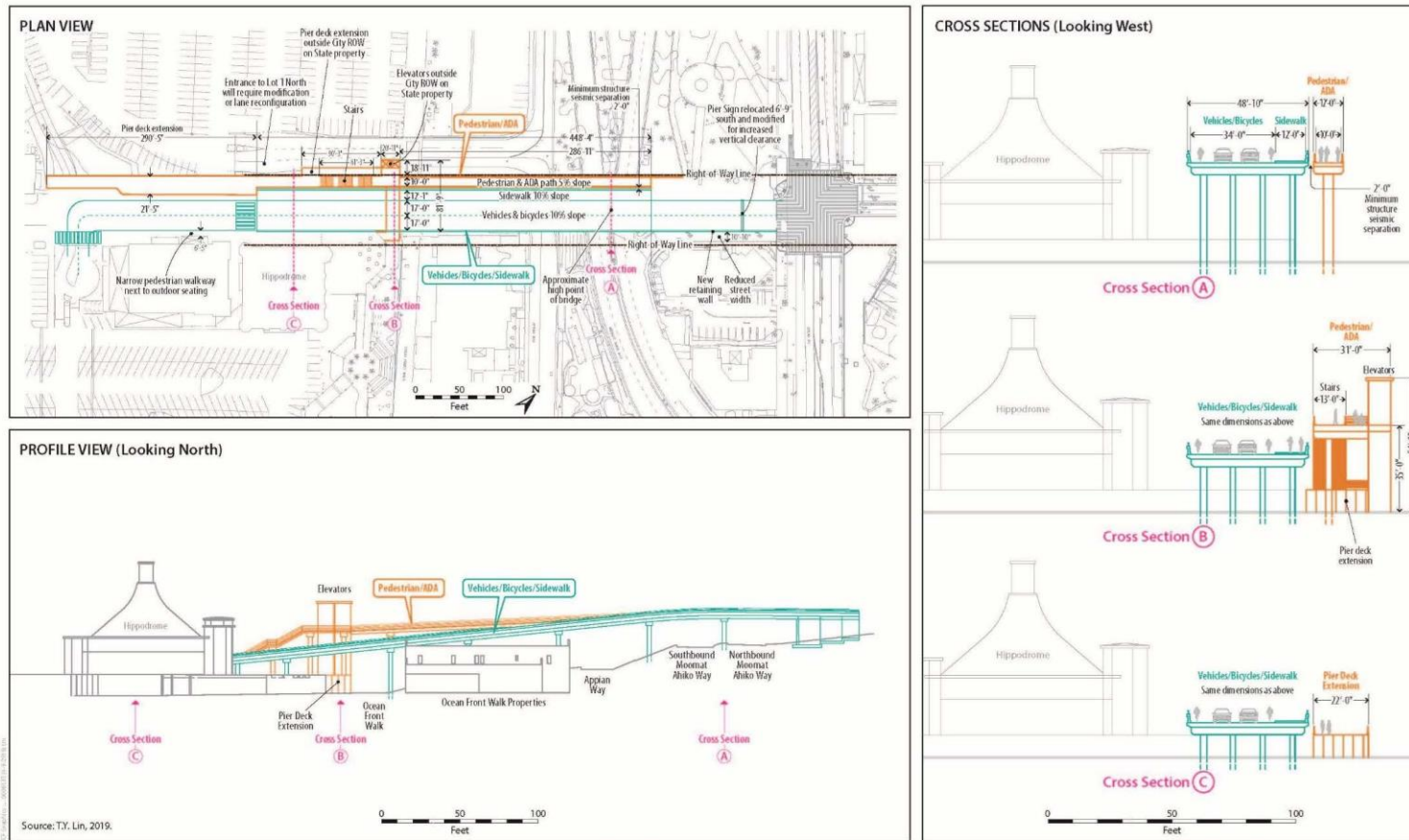
### Alternative 6: Narrow Pier Bridge Replacement with Northside Pedestrian/ADA Path



### Alternative 7: Wide Pier Bridge Replacement with Vehicle and Bike Lanes and Southside Pedestrian/ADA Path



### Alternative 8: Wide Pier Bridge Replacement with Vehicle and Bike Lanes and Northside Pedestrian/ADA Path



Seven members of the public attended the meeting (see Figure 4-2 Sign-In Sheet). Many had questions and concerns about visual impacts, conservation of historic properties and maximum use of the new bridge for all users. At the conclusion of the public meeting, two comment cards had been formally submitted to Caltrans. All questions asked during the scoping meeting and all comments received during the scoping period are summarized in the following table (Table 4-1). The public comments that follow were either made at the meeting or received during the 30-day public scoping period.

**Table 4-1. NOP Comments and Responses to Those Comments**

<b>Date</b>	<b>Agency, Organization, Individual</b>	<b>Topic (air quality, noise, traffic, etc.)</b>	<b>Comment</b>
10/29/2019	Josh Jones	Build Alternatives	Provided conceptual proposal to build a privately funded aerial gondola, consisting of a gondola from the Downtown Santa Monica Expo Line Station to the Pier and a funicular from Ocean Avenue/Colorado Avenue to the Pier on a structure immediately adjoining the rebuilt Pier Bridge.
10/30/2019	Josh Jones	Build Alternatives	Provided comment card at Scoping Meeting in support of studying a funicular.
10/30/2019	Carter Rubin	General, Build Alternatives	Provided comment card at Scoping Meeting that supported Alternative 4 and an alternative that would provide for flexible use and preclude most passenger cars.
11/1/2019	Native American Heritage Commission	Historical Archaeological Resources	Provides a list of actions that should be taken in order to comply with CEQA regulations relating to historical archeological resources.
11/19/2019	South Coast Air Quality Management District	Air Quality	Provides recommendations regarding the analysis of potential air quality impacts from the proposed Project.
11/22/2019	Santa Monica Conservancy	Historic Resources	Provided guidance on the assessment of historic resource for the Recirculated DEIR/EA. Specifically, addressing physical and contextual characteristics, including both direct and indirect impacts. Impacts upon views of designated historic resources was stated as another important component of the analysis of historic resources.
11/26/2019	Santa Monica Pier Lessee's Association	Build Alternatives	Provided support for the selection of Alternative 4.

**Figure 4-2: Sign-In Sheet**

City of Santa Monica  
**PIER BRIDGE REPLACEMENT PROJECT EIR/EA SCOPING MEETING**  
 Ken Edwards Center  
 October 30, 2019 5:30PM – 8:00 PM



**Thank you for attending today's meeting. To receive updates on this project, please provide us with your information below.**

This document may be considered a public record and as such any information provided on it may be made available to any member of the public.

Name (please print)	Mailing Address	Organization (optional)	E-mail
CAROL LEMLEIN	P.O. Box 653, SM 90406	SM Conservancy	lemlein@aol.com
C.J. Laffer	HLKK 1250 6th St. SM 90401		laffer@hlkk.com
Josh Jones	238 19th St 90402		joshster@gmail.com
Heather Smithson	380 SM Pier 90401	Pacific Park	hsmithson@pacpark.com
Dolores Sloan	1813 9th St #1 90404	Landmarks Commission	Dolores.Sloan@smgov.net
Carter Rubin		Pier Corp Board	carter.rubin@gmail.com
Shahnam Sherkhan		CT	shahnam.sherkhan@det.ca.gov

## 4.2 Consultation and Coordination with Public Agencies

Consultation with several agencies occurred in conjunction with preparation of the technical studies and the Recirculated EIR/EA for the proposed Project. The agencies are identified in the various technical reports and include those listed below.

### 4.2.1 Native American Heritage Commission

According to the NAHC response dated December 12, 2014, for the previously circulated Draft EIR/EA, no known sacred lands are located within the Project area. The NAHC also provided a list of eight local Native American groups and individuals, representing six different Native American groups in Southern California, to be contacted for information. This information was forwarded to Caltrans District 7. A letter describing the proposed Project and requesting information regarding resources important to Native Americans was sent to each representative on January 22, 2015 and followed up with phone calls in March 2015.

A letter dated November 1, 2019, was sent by the Native American Heritage Commission (NAHC) in response to their receipt of the NOP for the Recirculated EIR/EA. The NAHC recommended consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed Project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources, as well as recommendations for any cultural resource assessment.



Per Caltrans direction, it was recommended that a Supplemental Archeological Survey Report (ASR) was not needed for the Project since the original was completed and approved less than five years ago, during the preparation of the previous Draft EIR/EA. In addition, Caltrans did not recommend that the Records Search or Native American Consultation needed to be updated for the Project. However, consultation will continue with interested Native American representatives as they respond.

#### **4.2.2 U.S. Fish and Wildlife Service and National Marine Fisheries Service**

As part of the consultation process conducted for the previously circulated Draft EIR/EA, on February 12, 2016, the U.S. Fish and Wildlife Service (USFWS) provided a list of threatened and endangered species that might occur in the proposed Project location, and/or may be affected by the proposed Project. The letter also noted that, if the Project is a major construction Project, the federal agency (i.e., Caltrans, as designee for the Federal Highway Administration) has responsibility for preparing a Biological Assessment (BA), if it is required. A BA was determined to not be needed, based on the lack of potential for the Project to impact sensitive species and/or critical habitat. On January 13, 2016, the National Marine Fisheries Service (NMFS) responded to a request for a list of threatened or endangered species that are under NMFS jurisdiction and present in the Project area. The response letter from NMFS stated that the Project area is within the federally endangered Southern California Coast Distinct Population Segment of the federally endangered steelhead (*Oncorhynchus mykiss*), but the species was not expected to be present in the vicinity of the Project. The NMFS letter also noted that the Project location is not within designated critical habitat for endangered steelhead.

The consultation described above was done as part of the preparation of a Natural Environment Study – Minimal Impacts (NES (MI)) to determine impacts to biological resources as a result of the proposed alternatives. A review of the 2016 NES (MI) was conducted as part of the preparation of this Recirculated EIR/EA, and it was found that the 2016 document and its findings are still valid. Part of the review process included obtaining a current species list from USFWS, which was obtained on March 16, 2020. As described in the 2016 NES (MI) and the current Project description, all proposed work for all alternatives would be limited to developed and paved areas. No natural habitat areas would be affected by the Project. In addition, the avoidance and minimization measures described in the 2016 NES (MI) would be implemented to avoid and minimize impacts on species that could occur within adjacent sandy beach habitat or nest/roost in ornamental vegetation and bridge structures within developed portions of the Project area. Therefore, it is anticipated that the Project would have no impact on special-status species or habitats with implementation of the avoidance and minimization measures, and no BA would be required.

### **4.3 Consultation and Coordination with the Public and Agencies After Circulation of Draft EIR/EA**

A Draft EIR/EA for the proposed Project was originally circulated for public review from December 2017 to March 2018, and a public meeting was held in January 2018. Substantial comments were received criticizing both the range of alternatives under consideration and the perceived impacts associated with those alternatives. This resulted in a reexamination of the alternatives and the proposal of eight new ones, which are analyzed in this Recirculated EIR/EA.

As part of the development of the Recirculated EIR/EA, the City met with many agencies and local entities, to develop a robust set of alternatives that better reflected the interest and concerns of the public, and to better respond to comments received on the Draft EIR/EA. Between October 2018 and June 2020, the City held 14 meetings with stakeholder groups and the general public to present new alternatives and gather feedback. Participating groups reflect a broad range of interests including historic preservation, accessibility and mobility, economic development and tourism, recreation, and land use. In its presentations to these stakeholders, Public Works staff summarized the Project, proposed Project timeline and developments to date; how and why the City came to abandon the original 3 alternatives considered in the first DEIR/EA; and introduced 10 possible new alternatives.

Public Works staff also made presentations on the revised alternatives to the Landmarks Commission and Disabilities Commission and consulted with other internal City departments.

During this process, a handful of specific priorities and concerns were repeatedly expressed:

- The historic nature of areas at either end of the bridge and how the Project would impact these.
- Concerns about views to and from the Pier due to design and visibility of elevator towers, possible alternatives to address this.
- Desire of Pier and Ocean Front Walk tenants to improve pedestrian access and circulation from its current condition.
- The need to alleviate congestion and points of conflict on the Pier between cars and pedestrians.

Through these discussions and from the feedback received, Public Works staff narrowed the alternatives under consideration from 10 to 8, which were represented within the NOP (See Figure 4-1). In one charette in September 2019, the Pier Corporation Board of Directors formally supported an alternative with a southside pedestrian path as it better serves the interest of Pier stakeholders. Throughout the Draft EIR/EA review and subsequent presentation of new alternatives, the Santa Monica Conservancy has continued to express concerns about negative impacts on nearby historic properties.

For the Draft EIR/EA, a letter and map set were sent in November 2014 to the City of Santa Monica Landmarks Commission and the City of Santa Monica Environmental Review Section requesting information regarding any historic buildings, districts, sites, objects, or archeological sites of significance within the proposed Project area. As of January 2017, no responses had been received.

With the decision to recirculate the EIR/EA in 2020, Caltrans requested that new letters and map sets be prepared and sent to the following organizations: City of Santa Monica Landmarks Commission, City of Santa Monica Cultural Affairs, California Historic Route 66 Association, Santa Monica Conservancy (SMC), Los Angeles Conservancy, Santa Monica History Museum, National Historic Route 66 Federation, and the Route 66 Alliance. On May 18, 2020, this correspondence was submitted both electronically and through the mail to those groups, requesting information and input on the proposed Project. The only response received was from the Santa Monica Conservancy seeking to clarify changes to the proposed Project. No other

responses were received. On August 18, 2020, Caltrans recommended that The Cultural Landscape Foundation should be included as an interested party going forward.

On June 25, 2020, the SMC formally responded to the letter sent on May 18, 2020, requesting to be a consulting party. They also confirmed that only the Hippodrome, Santa Monica Pier Sign and Palisades Park are the known historic properties to them. Since the letter sent on May 18, 2020, the City has had ongoing conversations, via email and telephone, and meetings updating the numerous interested parties, including both the SMC and the Landmarks commission. These meetings also included updates to the Landmark's Commission on January 11, 2021, and July 11, 2022.

On May 19, 2022, Caltrans provided the SMC with HPSR, FNAE without Standard Conditions, and supporting documentation including the Pier Sign Preservation Plan pursuant to the April 5, 2021, letter from Caltrans confirming that the SMC is a Section 106 "consulting party" for the Project. Caltrans requested that SMC provide any additional comments or concerns by June 3, 2022. On June 3, 2022, the SMC responded and stated that they were pleased with the Pier Sign Protection Plan and acknowledged that the Landmarks Commission would be involved with the Project at the appropriate time. As the Project progresses to final design the City will consult further with the Landmarks Commission as part of their issuing a Certificate of Appropriateness and review of design plans concerning construction near landmark properties, including, but not limited to, Palisades Park, the historic Looff Hippodrome, the Pier Sign, Carousel Park, Historic Pier District, and Santa Monica Pier.



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# **Chapter 5** List of Preparers

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The following California Department of Transportation and City of Santa Monica personnel and consultants contributed to the preparation of this draft environmental impact report/environmental assessment.

## **5.1 California Department of Transportation**

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Garret Damrath, Principal Transportation Planner

Kelly Ewing-Toledo, Office Chief

Michael Enwedo, Branch Chief, Local Assistance, Senior Project Coordinator and Reviewer

Shabnam Sheikh, Associate Environmental Planner, Project Coordinator and Reviewer

Sameer Momani, Associate Environmental Planner, NEPA QA/QC Reviewer

Andrew Yoon, Senior Transportation Engineer, Senior Air Quality Technical Specialist Reviewer

Liberty San Agustin, Transportation Engineer, Air Quality Technical Specialist Reviewer

Claudia Harbert, Principal Architectural Historian, Senior Cultural/Historical Technical Specialist Reviewer

Caprice “Kip” Harper, Associate Environmental Planner, PQS – Principal Investigator Prehistoric Archaeology and Principal Architectural Historian, Technical Specialist Reviewer

George Olguin, SLA, Landscape Architect

Steve Chan, Senior Transportation Engineer, Senior Hazardous Waste and Materials Technical Specialist Reviewer

Samuel Yang, Transportation Engineer, Hazardous Waste and Materials Technical Specialist Reviewer

Jin Lee, Senior Transportation Engineer, Senior Noise and Vibrations Technical Specialist Reviewer

Paul Caron, District Senior Biologist, Biology Technical Specialist Reviewer

## **5.2 City of Santa Monica**

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Rusty Whisman, Environmental Planner/Air Quality and Climate Change Specialist

Marissa Mathias, Environmental Planner

Meagan Flacy, Environmental Planner

Charlotte Stadelmann, Environmental Planner

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Jessica Feldman, Architectural Historian

Jesse Lattig, Senior Architectural Historian

Shane Sparks, Senior Archeologist

Stephen Bryne, Senior Archeologist

Peter Hardie, Senior Noise Analyst

Eric Moskus, Noise Analyst

Shannon Crossen, Biologist

Sarah Horwath, Biologist

Brittany Buscombe, GIS Specialist

Johnnie Garcia, GIS Specialist

Tim Messick, Senior Graphic Designer

### **5.4 T.Y. Lin International**

Peter Smith, P.E., ENV SP, Lead Bridge Engineer

## **5.5 Fehr & Peers**

Netai Basu, Transportation Planner

## Chapter 6 Distribution List

Copies of the draft EIR/EA and/or the notice of availability (NOA) were sent to the elected officials, individuals, organizations, and agencies identified in Table 6-1, below. In addition, those who previously requested a copy of the environmental document or provided comments were also listed. Those listed within Table 6-1 will also be sent the draft recirculated EIR/EA and/or NOA as well. Addresses and names of those elected have been updated as of September 3, 2020.

**Table 6-1. Draft Environmental Impact Report/Environmental Assessment Distribution List**

Name	Organization	Address
<b>Federal Agencies</b>		
	U.S. Environmental Protection Agency (U.S. EPA)	Electronic submission through U.S. EPA's "e-NEPA system"
	Environmental Protection Agency, Region IX Federal Activities Office, CMD-2	75 Hawthorne Street San Francisco, CA, 94105-3901
	Federal Highway Administration (FHWA)	1200 New Jersey Ave., SE Washington, DC 20590
	Federal Transit Administration, Region IX	San Francisco Federal Building 90 7th Street, Suite 15-300 San Francisco, CA 94103
	Director Office of Environmental Policy and Compliance Department of the Interior	Main Interior Building, MS 5538 1849 "C" Street, NW Washington, DC 20240 ATTN: Bureau of Indian Affairs; Bureau of Land Management; Bureau of Ocean Energy Management; Bureau of Reclamation; National Park Service; Office of Surface Mining; U.S. Fish and Wildlife Service; U.S. Geological Survey; DOI Regional Environmental Officer;
	South West Regional Office: National Marine Fisheries Services	Glenn Anderson Federal Building 501 West Ocean Blvd, Suite 4470 Long Beach, CA 90802-4213
	Director Office of Environmental Management U.S. Department of Energy	1000 Independence Ave., SW Washington, DC 20590
	Centers for Disease Control National Center for Environmental Health	4770 Buford Hwy NE Atlanta, GA 30341-
	U.S. Army Corps of Engineers, Los Angeles District Attention: CESPL-CO-R	915 Wilshire Blvd. Los Angeles, CA 90017
	Environmental Clearance Officer Department of Housing and Urban Development	1 Sansome St., #1200 San Francisco, CA 94104

Name	Organization	Address
	Natural Resources Conservation Service, Area 4	602 S. Tippecanoe Ave San Bernardino, CA 92408
	Regional Director Federal Emergency Management Agency	Presidio of San Francisco, Building 105 San Francisco, CA 94129
	National Park Service	333 Bush Street, Suite 500 San Francisco, CA 94104
<b>State Agencies</b>		
	California Native American Heritage Commission - Exec. Secretary	1550 Harbor Blvd, Suite 100 West Sacramento, CA 95691
	California Department of Parks & Recreation	1416 9th Street Sacramento, CA 95814
	California State Lands Commission	100 Howe Avenue, Suite 100 South Sacramento CA 95825
	California Highway Patrol Central LA Area Office (590)	777 West Washington Boulevard Los Angeles, CA 90014-4113
	Environmental Review Section Office of Historic Preservation	1725 23rd Street, Suite 100 Sacramento, CA 95816
Amber Dobson	California Coastal Commission	301 E. Ocean Blvd, Suite 300, Long Beach, CA, 90802
Ed Pert	California Dept. of Fish & Wildlife South Coast Region #5	3883 Ruffin Road, San Diego, CA 92123
	California Dept. of Transportation District 7, Regional Planning	100 South Main Street Los Angeles, CA 90012-3712
	CAL-EPA, Dept. of Toxic Substances Control (DTSC)	5796 Corporate Avenue Cypress, CA 90630-4700
John Bulinski	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Vin Kumar	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Hamid Aghasharif	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Michael Enwedo	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Steve Novotny	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Mine Struhl	California Dept. of Transportation District 7	100 South Main Street Los Angeles, CA 90012
Hilary Norton	California Transportation Commission Commission Chair	1120 N Street Room 2221 (MS-52) Sacramento, CA 95814
	Headquarters Division of Environmental Analysis (for CTC Submission)	1120 N Street, MS 27 PO Box 942874 Sacramento, CA 94274-0001
Phil Stolarski	Caltrans Division of Environmental Analysis NEPA Assignment Office – MS 27	PO Box 942874 Sacramento, CA 94274-0001

Name	Organization	Address
	California Native Plant Society	2707 K Street, Suite 1 Sacramento, CA 95816-5113
	California Wildlife Federation	P.O. Box 64 Midpines, CA 95345
	California State Clearinghouse	For ALL Delivery: 1400 Tenth Street Sacramento, CA 95814
<b>Local Agencies</b>		
	City of Los Angeles Department of City Planning	ATTN: Environmental Review 200 North Spring Street, RM 750 Los Angeles, CA 9012-3243
	City of Los Angeles Department of Transportation Westside Planning	1828 Sawtelle Blvd. Room 108 Los Angeles, CA 90025
	County of Los Angeles Department of Public Works Land Development Division	900 South Fremont Avenue Alhambra, CA 91803-1331
	Southern California Association of Governments, Environmental Review	900 Wilshire Blvd, Ste 1700 Los Angeles, CA 90017
	Regional Water Quality Control Board Los Angeles Region #4, Environmental Review	320 West 4th Street, Suite 200 Los Angeles, CA 90013-2343
	City of Malibu Planning Department	23815 Stuart Ranch Road Malibu, CA 90265
	Los Angeles County Metropolitan Transportation Authority (METRO) ATTN: Environmental Review	One Gateway Plaza - Mail Stop 99-23-2 Los Angeles, CA 90012-3745
	Planning Director County of LA Dept. of Regional Planning Room 150 Hall of Records	320 West Temple Street Los Angeles, CA 90012-3216
	City of Los Angeles Department of Transportation ATTN: Environmental Review	100 South Main Street, 10th Floor Los Angeles, CA 90012-3712
	City of Los Angeles Department of Public Works Bureau of Engineering	1149 South Broadway, Suite 700 Los Angeles, CA 90015-2213
	Los Angeles County Registrar-Recorder/County Clerk	12400 Imperial Hwy. Norwalk, CA 90650
	Los Angeles County Board of Supervisors	500 W Temple St #383 Los Angeles, CA 90012
	Los Angeles LAFCO	80 S Lake Ave #870 Pasadena, CA 91101
	SCAQMD ATTN: Environmental Review	21805 East Copley Drive Diamond Bar, CA 91765-4182
<b>City of Santa Monica</b>		
	Santa Monica Chamber of Commerce	2425 Olympic Blvd, Suite # 160E Santa Monica, CA 90404
	Big Blue Bus Administrative Office	1444 4th Street Santa Monica, CA 90401

Name	Organization	Address
Sandra Lyon	Superintendent, SM-Malibu Unified School District	1651 16th Street Santa Monica, CA 90404-3801
	Santa Monica Pier Board	
	Santa Monica Convention & Visitors Bureau	2427 Main Street Santa Monica, CA 90405
Margaret Bach	Santa Monica Landmarks Commission	1685 Main Street Room 212 Santa Monica 90401
	Santa Monica City Council	1685 Main Street, Room 209 Santa Monica, CA 90401
<b>Elected/Appointed Officials</b>		
Mayor Sue Himmelrich	Mayor of Santa Monica	1685 Main Street, Room 209, Santa Monica, CA 90401
Councilmember Christine Parra	Santa Monica City Council	1685 Main Street, Room 209, Santa Monica, CA 90401
Councilmember Phil Brock	Santa Monica City Council	1685 Main Street, Room 209 Santa Monica, CA 90401
Councilmember Glean Davis	Santa Monica City Council	1685 Main Street, Room 209, Santa Monica, CA 90401
Councilmember Lana Negrete	Santa Monica City Council	1685 Main Street, Room 209 Santa Monica, CA 90401
Mayor Pro Tempore Kristen McCowen	Santa Monica City Council	1685 Main Street, Room 209 Santa Monica, CA 90401
Councilmember Oscar de la Torre	Santa Monica City Council	1685 Main Street, Room 209 Santa Monica, CA 90401
Senator Diane Feinstein	United States Senate	1111 Santa Monica Blvd, Suite 915 Los Angeles, CA 90025
Senator Kamala Harris	United States Senate	Office of the Attorney General 300 South Spring Street #1700 Los Angeles, CA 90013
Congressman Ted Lieu	33 <sup>rd</sup> Congressional District of California	1645 Corinth Ave, Suite 101 Los Angeles, CA 90025
<b>Organizations, Businesses, and Individuals</b>		
	Northeast Neighbors	902 - 23rd Street Santa Monica, CA 90403
Alin Wall	Wilshire-Montana Neighborhood Coalition	P.O. Box 607 Santa Monica, CA 90406
	Pico Neighborhood Association	1705 Pico Boulevard, Box 125 Santa Monica, CA 90405-1648
	North of Montana Neighborhood Association	1112-C Montana Avenue Santa Monica, CA 90403
	Ocean Park Association	P.O. Box 5006 Santa Monica, CA 90409-5006
	Southern California Edison	1721 22nd Street Santa Monica, CA 90404
	Southern California Edison Local Governmental Affairs Land Use/Environmental Coordinator	2244 Walnut Grove Avenue Rosemead, CA 91770-3714



<b>Name</b>	<b>Organization</b>	<b>Address</b>
	Santa Monica Conservancy	P.O. Box 653 Santa Monica, CA
	Southern California Edison Third Party Environmental Review	2244 Walnut Grove Avenue Rosemead, CA 91770-3714
Jack DeNicola	The Lobster	1602 Ocean Avenue Santa Monica, CA 90401
Christine Rohde		13967 Marquesas Way #30 Marina Del Rey, CA 90292
Heather Doyle	Santa Monica Pier Aquarium	1600 Ocean Front Walk Santa Monica, CA 90401
	Kenneth Linzer Hobart Linzer LLP	777 S. Figueroa Street Suite 4000 Los Angeles, CA 90017
Richard Bloom		2800 28th Street, Suite 150 Santa Monica, CA 90405
Kathleen Rawson	Downtown Santa Monica Inc.	1351 3rd Street Promenade, Suite 201 Santa Monica, CA 90401
	Friends of Sunset Park	P.O. Box 5823 Santa Monica, CA 90409
William Dale Brantley		4712 Admiralty Way #311 Marina Del Rey, CA 90292
Chris Volaski		708 Pacific Street Santa Monica, CA 90405
	Los Angeles County Bicycle Coalition	634 S. Spring Street, Suite 821 Los Angeles, CA 90014
Andrew Hoyer	Mid-City Neighbors	1441 24th Street Santa Monica, CA 90404
Martin Mink		22 Encanto Drive, Rolling Hills Estate, CA 90274
Alix Hobbs	Heal The Bay	1444 9th Street, Santa Monica, CA 90401
Ellen Brennan		1659 Ocean Front Walk #102 Santa Monica, CA 90401
Florette Mink	Russell No 8 Santa Monica Properties LLC	4549 Alla Rd No 5 Marina Del Rey, CA 90292
Ben Allan		3250 Ocean Park Blvd., Suite 370 Santa Monica, CA 90405
	Business Operations University of California	1111 Franklin St. Oakland, CA 94607-5200
	California State University Office of the Chancellor	401 Golden Shore Boulevard Long Beach, CA 90802-4210
	Sierra Club	2101 Webster St Suite 1300 Oakland, CA 94612
	Museum of Vertebrate Zoology	3101 Valley Life Sciences Building Berkeley, CA 94720-3160

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