# North Spring Street Viaduct Widening and Rehabilitation Project

Los Angeles County, California
State Clearinghouse No. 2006091076
California Department of Transportation District 7 – Bridge No. 53C-0859
EA 931701
BHLS 5006(219)
STPL 5006(563)

# Revised Final Environmental Impact Report/ Finding of No Significant Impact with Environmental Assessment and Programmatic Section 4(f) Evaluation

**Prepared by**

**City of Los Angeles**

**and**

**State of California Department of Transportation**

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327.

June 2011

SCH#2006091076

EA 931701

BHLS 5006(219)

STPL 5006(563)

# NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

## REVISED FINAL ENVIRONMENTAL IMPACT REPORT

Prepared Pursuant to:

Division 13 of the California Public Resources Code

Prepared by

City of Los Angeles (Local Lead Agency)
and
STATE OF CALIFORNIA
Department of Transportation (Federal Lead Agency)

CALIFORNIA DEPARTMENT OF TRANSPORTATION

FINDING OF NO SIGNIFICANT IMPACT

for the

NORTH SPRING STREET WIDENINING AND REHABILITATION PROJECT

The California Department of Transportation (Caltrans), in cooperation with the City of Los Angeles, has determined that the North Spring Street Widening and Rehabilitation project will have no significant impact on the human environment.

This Finding of No Significant Impact (FONSI) is based on the attached Environmental Assessment (EA) and supporting technical documents which have been independently evaluated by Caltrans and determined to adequately and accurately discuss the purpose and need for the project, environmental issues involved, impacts resulting from the proposed project, and appropriate mitigation measures. The document provides sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required.

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327. Caltrans takes full responsibility for the accuracy, scope, and content of the attached EA and supporting technical documents.

Date

Ronald Kosinski, Deputy District Director
Division of Environmental Planning
California Department of Transportation

SCH#2006091076

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# NORTH SPRING STREET VIADUCT WIDENING & REHABILITATION PROJECT

## FINAL ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL ASSESSMENT and Section 4(f) Evaluation

Prepared Pursuant to: Division 13, California Public Resources Code,
42 USC 4332(2)(C,) 49 U.S.C. 303, AND 23 U.S.C. 327

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried cut by Caltrans under its assumption of responsibility pursuant to 23 U.S.C. 327

City of Los Angeles (Local Lead Agency)
and
STATE OF CALIFORNIA
Department of Transportation (Federal Lead Agency)

May 13, 2010
Date

James E. Doty
James E. Doty, Acting Manager
Environmental Management Group
Bureau of Engineering
Department of Public Works
City of Los Angeles

May 17, 2010
Date

Ronald Kosinski
Ronald Kosinski, Deputy District Director
Division of Environmental Planning
California Department of Transportation

# SUMMARY

## Identification of Lead Agencies

The City of Los Angeles (City), in cooperation with the California Department of Transportation (Caltrans), proposes improvements and rehabilitation to the existing North Spring Street Viaduct and its adjoining roadways.

The City is the project proponent and the lead agency under the California Environmental Quality Act (CEQA). The Federal Highway Administration's (FHWA) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to Section 6005 of the federal *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU) codified at 23 U.S.C. 327(a)(2)(A). Effective July 1, 2007, FHWA has assigned, and Caltrans has assumed, all the U.S. Department of Transportation (U.S. DOT) Secretary's responsibilities under the National Environmental Policy Act (NEPA).

The assignment applies to all projects on the State Highway System (SHS) and all Local Assistance projects off the SHS in California, with the exception of the responsibilities concerning certain categorical exclusions, which were assigned to Caltrans under the June 7, 2007 Memorandum of Understanding (MOU), projects excluded by definition and specific project exclusions.

## Overview of the Project Area

The proposed project area is situated northeast of downtown Los Angeles in an area that includes residential, commercial, industrial, and open space (park) land uses. The proposed project area straddles portions of the Central City North and Northeast Los Angeles Community Planning areas. Regional transportation facilities in the area include Interstate 110 (I-110), Interstate 5 (I-5), and State Route 101 (SR-101).

Other projects in close proximity to the proposed project area include the Los Angeles State Historic Park (LASHP)[1], proposed by the California Department of Parks and Recreation (DPR); Cornfield Arroyo Seco Specific Plan (CASP)[2], Albion Park Project[3], and the Los Angeles River Revitalization Master Plan (LARRMP)[5], proposed by the

[1] Information available at: http://www.parks.ca.gov/default.asp?page_id=22272
[2] Information available at: http://sites.google.com/site/cornfieldsla/index
[3] Information available at: http://www.albionparkproject.com/Albionpark/Update.html
[5] Information available at: http://www.lariver.org/#

City; and the California High Speed Rail Project[6], proposed by the California High Speed Rail Authority.

## Purpose and Need

The purpose (objective) of the project is to correct existing geometrical and design deficiencies, and to address seismic vulnerability issues in order to increase the viaduct's SR to a minimum of 80. An additional purpose of the project is to improve bicycle and pedestrian circulation and safety across the river and railroad tracks.

The project is intended to achieve the following objectives:

- Eliminate existing geometrical and design deficiencies associated with the viaduct and its approach roadways;
- Correct existing seismic vulnerability issues specific to the viaduct; and
- Improve pedestrian and bicycle travel through the proposed project area and connections with regional bicycle routes and mass-transit facilities.

Currently, bicyclists compete with vehicular traffic using the existing, narrow exterior lanes on each side of the viaduct and there is only one narrow sidewalk on the north side of the viaduct to accommodate pedestrians. In July 2000, the City, in partnership with Caltrans, performed an inspection of the viaduct using the criteria developed by the FHWA. As a result, the viaduct was given an SR of 73.5 due to:

- Inadequate lane widths;
- Lack of shoulders to accommodate the average daily traffic (ADT) volume; and
- Loose cable restrainers.

Additionally, Caltrans inspections in 2000 and 2007 indicated that the viaduct is vulnerable to potential structural collapse under a designated seismic event and that the viaduct and its approach roadways are comprised of deteriorating pavement and sidewalks  These components are in need of repair in order to improve the movement of motorists, pedestrians, and bicyclists through the project area.

## Proposed Action and Proposed Project

The proposed federal action is for Caltrans, in cooperation with the City, to undertake a construction project designed to correct the deficiencies outlined above. The proposed project for the City is to support this action, which would include seismically upgrading and widening the existing viaduct, improving pedestrian and bicycle facilities, reconfiguring the intersection of Baker Street and North Spring Street, creating a

[6] Information available at: http://www.cahighspeedrail.ca.gov/

northwesterly extension of Wilhardt Street to connect Wilhardt Street to Baker Street, and the creating a cul-de-sac by closing Aurora Street and its existing intersection with North Spring Street.

## Project Alternatives

The proposed project includes improvements for both the viaduct structure and its connecting roadways. The general public and interested regulatory and permitting agencies were afforded opportunities to provide input on the development and selection of alternatives through the scoping process. In addition to the No Build Alternative, three build alternatives were brought forth for environmental assessment. The build alternatives are:

- Build Alternative 1: Seismic Retrofit Only
- Build Alternative 2: Widened Viaduct- Skewed Wilhardt Street Extension (Offset T-Intersection)
- Build Alternative 3: Widened Viaduct- Tangential Wilhardt Street Extension

Build Alternative 2 also includes a new design option (widening only the south side of the viaduct).

### Build Alternative 1

Build Alternative 1 consists of seismic retrofit construction only. This would not change the outside shape of the existing structure or dramatically reconfigure the viaduct's existing pier in the Los Angeles River. The seismic retrofit work would eliminate potential structural collapse that could occur under a designated seismic event. The designated seismic event is based on recorded maximum credible earthquakes at controlling faults adjacent to the project area. This alternative would involve both the superstructure (i.e., structure elements above top of the piers) and substructure (i.e., structure elements below top of the piers, such as pier walls and foundations) zones of the viaduct. Construction of Build Alternative 1 is expected to last approximately 12 months.

### Build Alternatives 2 and 3

Build Alternatives 2 and 3 would be constructed in two phases. Phase 1 would include all of the seismic, viaduct, and roadway improvements from the east end of the project limits to just east of Wilhardt Street. Phase 2 would include construction of the Wilhardt Street Extension. Construction of the two phases is expected to last a total of 4.5 years. Close coordination with utility owners would be established as part of the design process and maintained through its construction.

### *Phase 1*

Seismic Retrofit

For the single side widening, the seismic improvements for Build Alternatives 2 and 3 would be the same as the Alternative 1 as the existing structure would not gain additional lateral support from single side widening. For the dual side widening, the seismic retrofit would be essentially the same as the Alternative 1 except that the amount of steel pipe seat extenders encased in concrete diaphragm bolsters at arch spans would be reduced because the existing structure would gain structural lateral supports from dual side widening.

Viaduct Improvements

Viaduct improvements common to Build Alternatives 2 and 3 include construction of 10-foot sidewalks, railing system, and electroliers along both sides of the structure; widening of the viaduct deck; installation of 5-foot shoulders; reconstruction of the staircase from the north side of the widened viaduct to the Downey Recreation Center; and reconstruction of portions of the terraced slopes on the north and south side of North Spring Street east of the viaduct adjacent to the Downey Recreation Center. Design Option A for Build Alternative 2 would widen the viaduct along only the south (downstream) side by approximately 23 feet (to outside rail). The widened viaduct would maintain two 11-foot traffic lanes in each direction and a 4-foot median. This design option would also include a 5-foot bike lane and a 5-foot sidewalk on each side of the viaduct between the outer railings.

Roadway Improvements

Roadway improvements common to Build Alternatives 2 and 3 include closing Aurora Street at the existing intersection with North Spring Street; closing both North Spring Street frontage roads adjacent to the viaduct northeast of Aurora Street; extending the existing left turn pocket on North Spring Street westerly for a total of 250 feet; repairing approach roadways to address pavement cracking and differential settlement issues at both ends of the viaduct; constructing new bike lanes on both sides of North Spring Street; and constructing a pedestrian walkway that would connect the northern portion of the Downey Recreation Center with its southern portion.

### *Phase 2*

Build Alternative 2

Phase 2 of Build Alternative 2 would include constructing a 4-way intersection at North Spring Street and Wilhardt Street after extending Wilhardt Street north to Baker Street. In

addition, Build Alternative 2 would include widening northeast-bound North Spring Street at the Wilhardt Street intersection; widening southwest-bound North Spring Street; widening southwest-bound North Spring Street; installing new sidewalks and bike lanes on both sides of the extended Wilhardt Street; constructing a bicycle lane on the north and south sides of North Spring Street from the widened viaduct to the new signalized 4-way intersection at Wilhardt Street; and reconfiguring the Baker Street/North Spring Street intersection.

Build Alternative 3

Phase 2 of Build Alternative 3 would include constructing a 4-way intersection at North Spring Street and extending Wilhardt Street north to Baker Street. In addition, Build Alternative 3 would include remove the Baker Street roadway west of the Wilhardt extension including the Baker Street/North Spring Street intersection; widening northeast-bound North Spring Street at the Wilhardt Street intersection; widening southwest-bound North Spring Street; widening southwest-bound North Spring Street; installing new sidewalks to follow the return of the extended Wilhardt Street intersection with the realigned Baker Street; maintaining the existing sidewalk; and installing new bike lanes along both sides of North Spring Street from the widened viaduct to the new signalize 4-way intersection at Wilhardt Street.

## Joint CEQA/NEPA Document

The proposed project is subject to federal, as well as state, environmental review requirements because the City proposes the use of federal funds and the project requires FHWA approval. Therefore, this joint revised Final Environmental Impact Report/ Environmental Assessment (FEIR/EA) has been prepared to comply with both CEQA and NEPA.

Environmental effects expected from the project are summarized in Table S-1. The significance of these impacts under CEQA is discussed in Chapter 3 California Environmental Quality Act Evaluation. Impacts determined to be significant under CEQA may not lead to a determination of significance under NEPA since different criteria apply to these two acts. Measures proposed to mitigate these impacts are listed in Table S-2.

Following receipt of public and agency comments on the Draft EIR/EA (DEIR/EA) and circulation of the revised FEIR/EA, which provides responses to those comments, the lead agencies will take actions regarding the environmental document and the proposed project. The City will determine whether to certify the adequacy and accuracy of the EIR

and whether to approve the proposed project, and Caltrans will decide whether to prepare a FONSI or require an Environmental Impact Statement (EIS).

## Coordination with Public and Other Agencies

Public and agency coordination has been carried out throughout the project development process by means of a formal scoping meeting, community meetings, potentially affected property owner meetings, political representative meetings, and other meetings. In addition, notification letters have been sent to stakeholders at various points in the process, public notices have been published in various newspapers, and project information has been posted on the City's Department of Public Work Bureau of Engineering Web Site (BOE) website for the general public to view. Ongoing coordination meetings with affected government agencies, utility companies, and other stakeholders have been conducted to update the project status, obtain input, secure agreements, and resolve issues.

## Permits Required

The following are permits and approvals required for the project:

- Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB);
- Section 404 Permit from the U.S. Army Corps of Engineers (ACOE);
- Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG); and
- Approval for North Spring Street Viaduct highway-rail crossings alteration from the Public Utilities Commission (PUC).

## Areas of Known Controversy

Build Alternatives 2 and 3 would have an adverse effect on the historic integrity of North Spring Street Viaduct. Other areas of controversy that have been brought forward by members of the community include the potential displacement and relocation of industrial buildings and businesses; potential demolition of the Los Angeles Historic-Cultural Monument (HCM) No. 872 Raphael Junction Block Building (Build Alternative 3; and partial acquisition of the LASHP (Build Alternative 4).

Issues related to impacts to the viaduct have been resolved through additional outreach following circulation of the DEIR/EA and the development of Design Option A. Issues relating to HCM No. 872 would be resolved by implementation of the preferred alternative, Build Alternative 2. Issues relating to the LASHP have been resolved by discontinuing consideration of Build Alternative 4.

## Issues to be Resolved

There are various issues regarding the proposed project that need to be resolved by the decision-making body. These include:

- Potential displacement and relocation of nonresidential businesses;
- Potential temporary displacement of community service organizations (i.e., the Metabolic Studio, Farmlab, and Under Spring);

Measures have been proposed to minimize the effects of these activities.

## Project Impacts and Mitigation

*Tables S-1* and *S-2* summarize the project impacts and recommended mitigation measures for the project by alternative. Discussion of significance under CEQA is discussed in Chapter 3.

| Table S-1 Summary of Environmental Effects | | | | | |
|---|---|---|---|---|---|
| **Environmental Factor** | **Potential Impact** | **Build Alternative 1** | **Build Alternative 2** | **Build Alternative 3** | **No Build Alternative** |
| **Land Use** | **Consistency with Applicable Plans and Policies** | No impact. | | | |
| | **Right-of-Way Reclamation and Acquisition** | No impact. | Full acquisition of one parcel, small right-of-way takes from additional parcel for Aurora cul-de-sac, temporary construction easements. | Full acquisition of two parcels, small right-of-way takes from additional parcel for Aurora cul-de-sac, temporary construction easements. | No impact. |
| | **Parks and Recreation** | No impact. | Temporary noise and air quality impacts to Downey Recreation Center during construction. Slight noise increase at one receptor; under Design Option A this impact would not occur. Minimal loss of open space for construction of pathway at Downey Recreation Center. | | No impact. |
| **Community Impacts** | **Community Character and Cohesion** | Access to Under Spring and Farmlab would be impacted temporarily during construction. | Access to Under Spring and Farmlab would be temporarily impacted temporarily during construction. Improved path under the viaduct to connect the northern and southern portions of the Downey Recreation Center, would result in beneficial impacts. Bicycle and pedestrian linkages to adjoining communities would be enhanced. | | No impact. |
| | **Relocations** | No impact. | Displacement/ relocation of one business. | Displacement/ relocation of two businesses. | No impact. |
| | **Environmental Justice** | No impact. | | | |
| **Utility and Emergency Services** | **Utilities** | Several utilities would be either relocated or protected in place. | | | No impact. |
| | **Emergency Services** | No impact. | Law enforcement and fire protection emergency response services would benefit from improved operational paths through the study area provided by widened curb lanes, a median lane, and extension of Wilhardt Street through North Spring Street to Baker Street | | No impact. |

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| **Traffic and Transportation** | **Roadway Traffic Level of Service (LOS)** | No direct impact, but would not meet purpose and need to improve operational deficiencies on the viaduct. | .Minor to moderate temporary traffic delays during construction. Following construction, beneficial impacts due to overall improvement in the LOS and flow of traffic and traffic safety at the viaduct and the surrounding roadways. | | No direct impact, but would not meet purpose and need to improve operational deficiencies on the viaduct. |
| | **Parking** | No Impact. | Permanent loss of approximately 10 on-street public parking spaces. | | No impact. |
| | **Bicycle and Pedestrian Facilities** | No direct impact, but would not meet purpose and need to enhance bicycle and pedestrian movement across the viaduct. | Temporary disruption to pedestrian access to the viaduct could occur during construction. Following construction, beneficial impacts would result due to enhanced access and safety for bicyclist and pedestrians | | No direct impact, but would not meet purpose and need to enhance bicycle and pedestrian movement across the viaduct. |
| **Visual/Aesthetics** | **Aesthetics and Views** | No impact. | Existing trees and landscaping would be temporarily impacted for construction. Views of the viaduct would be impacted as a result of bridge widening and replacement of existing railings. Under Design Option A, existing Beaux-Arts features would potentially be replaced with differentiated features. | Existing trees and landscaping would be temporarily impacted for construction. Views of the viaduct would be impacted as a result of bridge widening and replacement of existing railings. | No impact. |
| | **Nighttime illumination** | No impact. | Existing lighting would be replaced in a similar fashion to the existing lighting, but may be in a slightly different location due to bridge widening. | | No impact. |

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| **Cultural Resources** | **Historical Resources** | Some minor impacts to the historic fabric of the viaduct, but no adverse impacts. | Adverse impacts to the historic fabric of the viaduct. Under Design Option A, impacts to the north side of the viaduct would be avoided and would be minimized overall, but would still be adverse. | Adverse impacts to the historic fabric of the viaduct, and to the Raphael Junction Block Building (Los Angeles HCM 872). | No impact. |
| | **Archaeological Resources** | No impact. | | | |
| **Hydrology, Floodplain, and Water Quality** | **Drainage** | No impact. | Slight increase in impervious area resulting from viaduct widening. | | No impact. |
| | **Pollutant Control** | No impact. | Work within and near the Los Angeles River could increase the potential for transport of pollutants to the river. | | No impact. |
| | **Trash Increase** | No impact. | Additional pedestrian and cyclist traffic on the Viaduct could result in a minor increase in trash released into the Los Angeles River. Trash receptacles along the pedestrian walkway would reduce littering. | | No impact. |
| | **100-year Flood Area Hazard** | No impact. | Viaduct piers are located in the 100-year floodplain, and would be extended for viaduct widening. | | No impact. |
| **Geology/Soils/Seismic** | | The viaduct could be impacted by ground motion, liquefaction, and differential seismic settlement, but the project is design to reduce seismic hazards on the viaduct. | | | No direct impact, but this alternative would not meet the purpose and need of the project to seismically retrofit the viaduct. |
| **Hazardous Waste/Materials** | | Accidental spills during on-site fueling of construction equipment or upset conditions could result in a release of fuels or oils. | Lead-based paint and asbestos-containing materials may be encountered in structures demolition or street/municipal markings. Recognized Environmental Conditions associated with the project area may be present in several locations. Accidental spills during on-site fueling of construction equipment or upset conditions could result in a release of fuels or oils. | | No impact. |

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| **Air Quality** | Construction activities could result in emissions of asbestos containing material, lead based paint, fugitive dust, particulates ($PM_{10}$ and $PM_{2.5}$), and other pollutants. However, these impacts would be short-tern due to the temporary nature of the construction activities. | | No impact. |
| **Noise and Vibration** | No impact. | Temporary noise impacts would result from construction activities, but would be short-term due to the linear nature of the project. Exceedance of Caltrans/Federal Highway Administration Noise Abatement Criteria for existing land use increase at one location where outdoor activity is frequent. Under Design Option A this impact would not occur. Minimal loss of open space for construction of pathway at Downey Recreation Center. | No impact. |
| **Biological Resources** | No impact. | Temporary impact to street trees on both sides of North Spring Street for construction. | No impact. |
| **Section 4(f) Resources** | No use. | No use of Los Angeles State Historic Park, de minimis use of Downey Recreation Center, and direct use of North Spring Street Viaduct. | No use. |

| Table S-2 Summary of Mitigation Measures | | | | |
|---|---|---|---|---|
| **Environmental Factor** | **Build Alternative 1** | **Build Alternative 2** | **Build Alternative 3** | **No Build Alternative** |
| **Land Use** | No mitigation required. | | | |
| **Community Impacts** | No mitigation required. | | | |
| **Utility and Emergency Services** | No mitigation required. | | | |
| **Traffic and Transportation** | **MM TRA-1:** Prior to construction, the contractor shall prepare a construction staging plan that shall ensure that a walkway on either the north or south side of the viaduct shall be open to pedestrians at all times. | | | |
| **Visual/Aesthetics** | No mitigation required. | **MM AES-2**: Existing trees and/or landscaping that are to be removed shall be replaced with similar plantings and/or landscaping, as agreed upon by the City's Street Services Bureau, Street Tree Division, in conjunction with Recreation and Park Architecture. | | No mitigation required. |
| **Historical Resources** | **For Alternatives 1, 2, and 3:**<br>**MM HIS-1**: Prior to any viaduct construction activities, the City should contact the National Park Service (NPS) Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) program to determine if additional recordation is required for the North Spring Street Viaduct beyond that provided in 1996. Unless otherwise agreed to by the NPS HABS/HAER, the City should ensure that all documentation is completed and accepted by HABS/HAER before the viaduct is altered. All documentation should be prepared to the satisfaction of SHPO to reduce potential effects of the proposed project. All documentation should be prepared by professionals meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A.<br>**MM HIS-2**: Caltrans should review the proposed seismic strategy plans to ensure that the plan complies with the Secretary of the Interior's Standards for Rehabilitation prior to commencement of any seismic related construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the Standards. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A.<br>**MM HIS-3**: The City should retain, clean and restore the existing bronze dedication plaques that are located on the viaduct. These plaques should remain on the viaduct; however if the viaduct is widened, then the dedication plaques should be relocated to an appropriate location on the widened section of the viaduct. | | | No mitigation required. |

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| | **For Build Alternatives 2 and 3 and Design Option A (in addition to MM HIS1 through M HIS3):**<br>**MM HIS-4:** The City should prepare a website, or adapt its current website, to make the information from the HABS/HAER report available to the public for at least five years. The information should also be made available to the Caltrans Transportation Library in Sacramento for inclusion on their website.<br>**MM HIS-5:** The City should install informative permanent metal plaques at both ends of the viaduct at public locations that provide a brief history of the viaduct, its engineering features and characteristics, the reasons for its alteration, and a statement of the characteristics of the replacement features. The SHPO would have 30 days to review proposed plaque information before they are produced and installed.<br>**MM HIS-6**: To the extent feasible, the City should make a reasonable effort to retain and reuse architectural features that are removed from the viaduct as part of the widening project. This includes concrete railings, electroliers, and concrete brackets, as appropriate. To the extent feasible, concrete railings and electroliers should be reused on the widened structure or incorporated into a new design for the widened portion of the viaduct. If the architectural features cannot be reasonably re-used on the viaduct, then those features should be replicated in kind and the original features should be utilized in other design elements of the overall project as landscaping and hardscaping features such as along the pedestrian undercrossing on the east side of the viaduct and along the viaduct embankments near the Downey Recreational Center. Sections of salvaged brackets, if removed for the widening, should be considered as a potential element for on-site or off-site interpretive displays on the viaduct.<br>**MM HIS-7**: The City should make a reasonable effort to coordinate with the local park facilities adjacent to the viaduct and identify an appropriate location for an interpretive display or kiosk within the immediate vicinity of the viaduct. The interpretive display should include information on the Los Angeles River Monument Bridges' history and significance, as well as information on the design process of the widened viaduct, including information on the design and construction process and the public outreach efforts. The interpretive display or kiosk could include salvaged architectural elements not re-utilized on the viaduct widening project or special lighting to highlight the historic viaduct. All interpretive material should be prepared in consultation with the Los Angeles Conservancy and the CHC and should be made available for review and approval by Caltrans and the SHPO prior to fabrication and installation.<br>**For Design Option A (in addition to MM HIS 1 through MM HIS 7):**<br>**MM HIS-8**: The City should install Los Angeles HCM plaques on both sides of the viaduct.<br>**MM HIS-9**: The City should work with a qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards in Architectural History or Historic Architect to design the reduced single sided widened structure to the south of the existing viaduct in a manner that is compatible with the historic viaduct but distinguishable from the existing design or materials in conformance with the Secretary of the Interior's Standards for Rehabilitation. The final proposed designs should be submitted to Caltrans and the SHPO for comment prior to commencement of construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the Standards for Rehabilitation. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A. | |

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| | **For Build Alternative 3 (in addition to MM HIS 1 through MM HIS 9):**<br>**MM HIS-10:** The City should consult with Caltrans to undertake documentation of the HCM No. 872, Raphael Junction Block Building in accordance with HABS/HAER standards prior to demolition of the structure. The level of documentation, format, and number of views would be the discretion of Caltrans and the SHPO. | | |
| **Archaeological Resources** | No mitigation required. | | |
| **Hydrology, Floodplain, and Water Quality** | No mitigation required. | | |
| **Geology/Soils/Seismic** | No mitigation required. | | |
| **Hazardous Waste/Materials** | No mitigation required. | | |
| **Air Quality** | No mitigation required. | | |
| **Noise and Vibration** | No mitigation required. | | |
| **Biological Resources** | No mitigation required. | | |
| **Section 4(f) Resources** | No mitigation required | **MM HIS1** through **MM HIS 10**, as discussed under Historical Resources above. | No mitigation required |

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Appendix P Scoping Summary
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# Chapter 1. Proposed Project

## 1.1 Introduction

This document is the revised Final Environmental Impact Report/Environmental Assessment (FEIR/EA) and Programmatic Section 4(f) Evaluation for the project. Comments have been received and addressed from the public and reviewing agencies. The revised FEIR/EA includes responses to comments received on the Draft EIR/EA (DEIR/EA), and a preferred alternative has been identified.

Following distribution of the revised FEIR/EA, if the decision is made to approve the project, a Notice of Determination (NOD) would be completed to comply with California Environmental Quality Act (CEQA) and Notice of Availability of a Finding of No Significant Impact (FONSI) would be completed to comply with National Environmental Quality Act (NEPA). A vertical line in the margin indicates changes were made to the text after public circulation.

The North Spring Street Viaduct (Bridge #53C-0859) is elevated over the Los Angeles River and multiple railroad tracks in the City of Los Angeles, Los Angeles County, California (See *Figures 1-1* and *1-2*). The viaduct consists of four vehicular travel lanes; two in the eastbound direction and two in the westbound direction. The segment of roadway within the project area connects Lincoln Heights to Chinatown in the Los Angeles (see *Figure 1-3*). The project area is situated northeast of downtown Los Angeles in an area that includes residential, commercial, industrial, and open-space (park) land uses. The project area straddles portions of the Central City North and Northeast Los Angeles community planning areas.

The City of Los Angeles (City), in cooperation with the State of California Department of Transportation (Caltrans), proposes to improve the viaduct and a portion of North Spring Street between Baker Street to the southwest and Avenue 18 to the northeast. The project includes seismically upgrading the existing viaduct and improving pedestrian and bicycle facilities, and also includes reconfiguration of the intersection of Baker Street and North Spring Street, creation of a northwesterly extension of Wilhardt Street to connect Wilhardt Street to Baker Street, and the creation of a cul-de-sac by closing Aurora Street and its existing intersection with North Spring Street.

The City is the project proponent and the lead agency under CEQA. The Federal Highway Administration's (FHWA) responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been,

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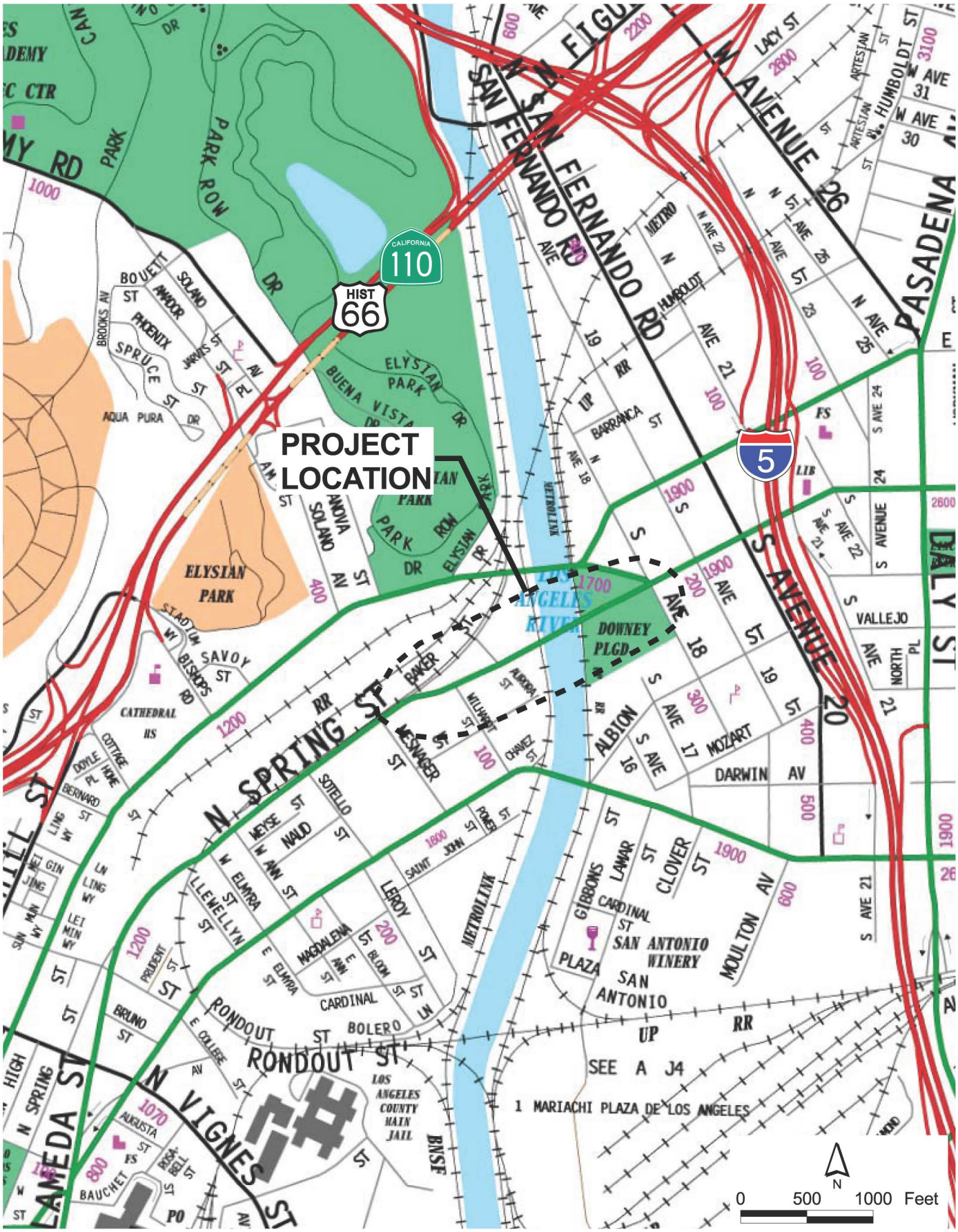
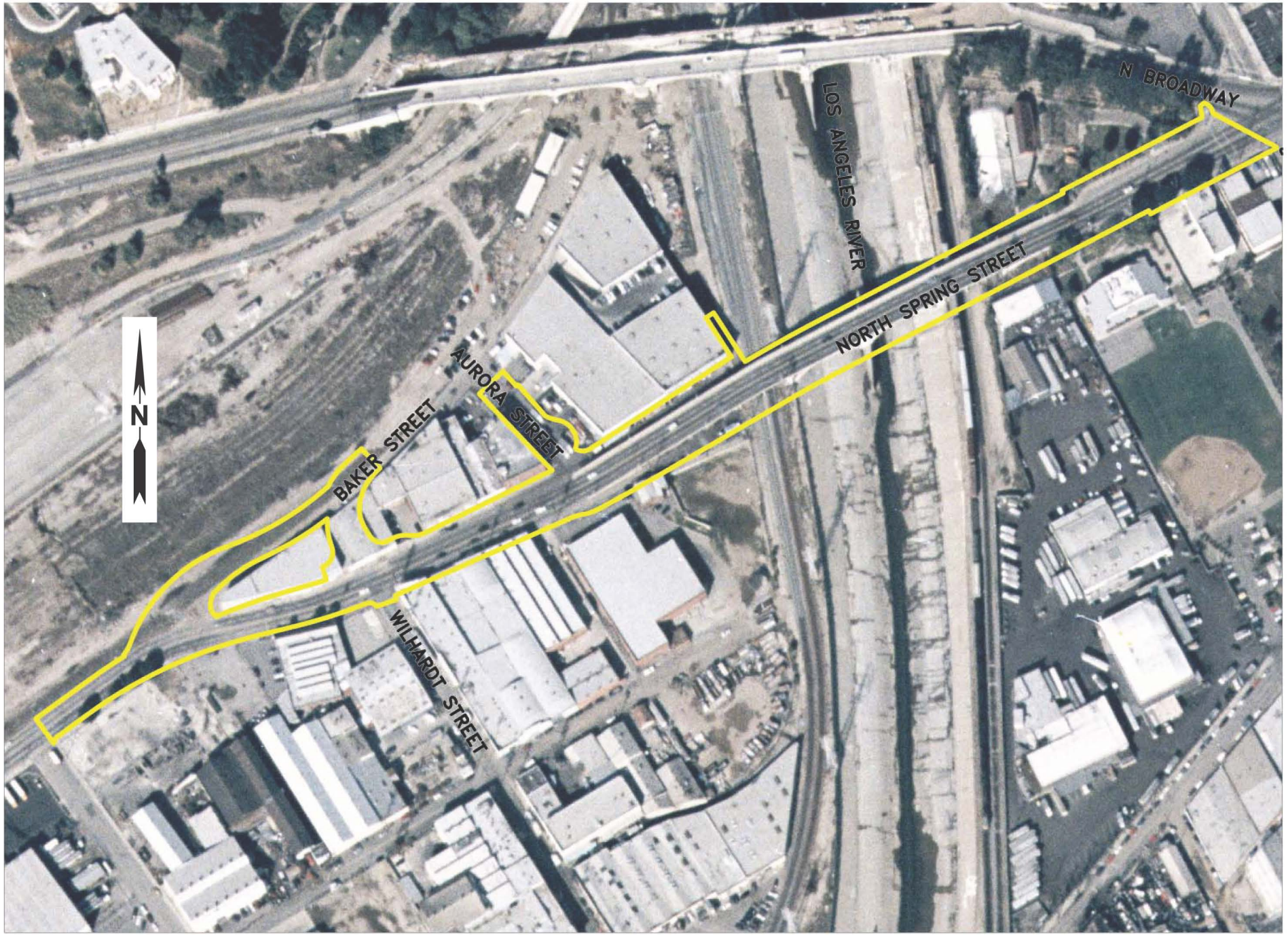
| | | |
|---|---|---|
| LA DPW ENGINEERING | REGIONAL LOCATION MAP | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 1-1 |




| | |
|---|---|
| ENGINEERING | VICINITY MAP |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 1-2 |




LA DPW ENGINEERING

PROJECT AREA

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 1-3

carried out by Caltrans under its assumption of responsibility pursuant to Section 6005 of the federal *Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users* (SAFETEA-LU), codified at 23 U.S.C. 327(a)(2)(A). Effective July 1, 2007, FHWA has assigned, and Caltrans has assumed, all the FHWA responsibilities under NEPA.

The project is included in the third amendment to the 2011 Federal Statewide Transportation Improvement Program (FSTIP), and proposed for funding in part (88.5 percent) under the federal Highway Bridge Program (HBP) and 11.5 percent by state and local funds. The HBP funding is authorized by SAFETEA-LU.

The purpose of the HBP program is to provide funding assistance for the repair, replacement, or rehabilitation of public highway bridges over waterways, other topographical barriers, other highways, or railroads when Caltrans (acting on behalf of FHWA) determines that a structure is important, but has structural deficiencies, physical deterioration, or functional obsolescence. State and local funding would be derived from a combination of Proposition 1B Highway-Railroad Crossing Safety Account (State) and Proposition C and Proposition G (City) sources.

### 1.1.1 Background

The Highway Bridge Rehabilitation and Replacement (HBRR) program was first authorized by Congress as part of the Federal Transportation Equity Act for the 21st Century (TEA-21) in 1999, and extended as the HBP by the SAFETEA-LU by Public Law 104-59 in 2005. The purpose of this program is to provide assistance for local agencies to repair and upgrade their bridges to meet current design standards that are consistent with their intended use and function.

Local bridges are evaluated in accordance with the Recording and Coding Guide for Structure Inventory and Appraisal of the Nation's Bridges using a set of inspection criteria developed by the FHWA, which includes factors such as structural adequacy and safety (roadway deck geometry, clearances, lane and shoulder widths), serviceability and functional obsolescence (average daily traffic volume) and essentiality for public use (pedestrian and bicyclist access). Once an evaluation is complete, a sufficiency rating (SR) between zero and 100 is assigned. Those with a SR of 80 or below are eligible for federal bridge rehabilitation funding.

In July 2000, the City, in partnership with Caltrans, performed an inspection of the viaduct using the set of criteria developed by the FHWA. As a result, it was determined the viaduct had structural and roadway deficiencies, and it was placed on the HBP Eligible (for federal funding) Bridge List (EBL) because it received a SR of 73.5.

The viaduct was determined to be eligible for the National Register of Historic Places (NRHP) as part of the state-wide Historic Bridge Inventory conducted by Caltrans during the 1980s (re-confirmed eligible in 2006) and was declared a City of Los Angeles Historic-Cultural Monument (HCM) (HCM # 900) in 2007.

After reviewing the alternatives presented in the environmental document on June 9, 2010, the Los Angeles City Council Transportation Committee recommended that the City perform additional outreach to formulate additional options for consideration. In response, the City's Bridge Improvement Program (BIP) explored several design options that would improve the viaduct's structural and roadway deficiencies, while taking into account its historic features. The City also held working group meetings on June 17 and June 29, 2010 and March 10, 2011 comprised of interest groups, stakeholders, and elected officials. This coordination resulted in a new design option for to Alternative 2 that has been added to this revised FEIR/EA.

### 1.1.2 Existing Facility

The North Spring Street Viaduct was constructed in 1928 and is one of several monumental viaducts funded by the 1923 Viaduct Bond Act. The roadway was widened in 1939 by removing the south-side sidewalk. The viaduct was seismically retrofitted in 1992, and extensively repaired (i.e., concrete spall patching, baluster removal, electrolier removal, and railing crack repair) in 1993. The viaduct is currently designated as a Class II Major Highway, although it does not meet the standard dimensions of such designation (which requires a roadway width of 80 feet with 12-foot sidewalks on either side of traffic for a total width of 104 feet).

North Spring Street is striped throughout most of the project's limits for four-lane (two in each direction) vehicular use. Currently, the viaduct is 50 feet wide overall, has a 4-foot wide sidewalk on its north side, and is striped for two undivided 10-foot interior lanes (one in each direction), and two 9.5-foot outer lanes. There are no shoulders or bikeways. The current configuration is constrained by the viaduct's overall width and does not meet current geometrical or design standards as described in the purpose and need below.

East of the viaduct, North Spring Street intersects with Avenue 18 and North Broadway in a five-point intersection. There is current a 93-foot long eastbound left-turn lane on North Spring Street at this intersection. West of the viaduct, Aurora Street intersects with North Spring Street (north side) and Wilhardt Street intersects with North Spring Street (south side) before Baker Street intersects with North Spring Street.

## 1.2 Purpose and Need

### 1.2.1 Purpose

The purpose (objective) of the project is to correct existing geometrical and design deficiencies, and to address seismic vulnerability issues in order to increase the viaduct's SR to a minimum of 80. An additional purpose of the project is to improve bicycle and pedestrian circulation and safety across the river and railroad tracks.

The project is intended to achieve the following objectives:

- Eliminate existing geometrical and design deficiencies associated with the viaduct and its approach roadways;
- Correct existing seismic vulnerability issues specific to the viaduct; and
- Improve pedestrian and bicycle travel through the project area and connections with regional bicycle routes and mass-transit facilities.

### 1.2.2 Need

A bridge must be geometrically adequate in order to function properly. The determination of geometric adequacy includes the consideration of several components, including the number of travel lanes; roadway width; shoulder width; approach roadway width; vertical clearance over the roadway; underclearances; horizontal clearances; sight distances across the bridge and at the approaches; proximity to intersections; and the functional classification of its associated roadways.

Currently, bicyclists compete with vehicular traffic using the existing, narrow exterior lanes on each side of the viaduct and there is only one narrow sidewalk on the north side of the viaduct to accommodate pedestrians. In July 2000, the City, in partnership with Caltrans, performed an inspection of the viaduct using the criteria developed by the FHWA. As a result, the viaduct was given an SR of 73.5 due to:

- Inadequate lane widths;
- Lack of shoulders to accommodate the average daily traffic (ADT) volume; and
- Loose cable restrainers.

Additionally, Caltrans inspections in 2000 and 2007 indicated that the viaduct is vulnerable to potential structural collapse under a designated seismic event and that the viaduct and its approach roadways are comprised of deteriorating pavement and sidewalks (The designated seismic event is based on recorded maximum credible earthquakes (MCE) at controlling faults

adjacent to the project site). These components are in need of repair in order to improve the movement of motorists, pedestrians, and bicyclists through the project area.

### 1.2.3 Independent Utility and Logical Termini

Independent utility means the project must be able to function on its own without further construction of an adjoining segment. Logical termini for project development considerations are generally defined as:

1. Rational end points for a transportation improvement; and

2. Rational end points for a review of the environmental impacts associated with a proposed improvement.

The objective of the project is to repair and upgrade the viaduct to meet current seismic safety and design standards, address geometrical and design deficiencies of the viaduct and its adjoining approach roadways and improve travel for bicycles and pedestrians. This would require seismic retrofitting and widening of the viaduct.

The roadway and viaduct configuration contains line of sight and traffic merging difficulties at Aurora Street for motorists making left or right hand turns onto North Spring Street due to its close proximity to the viaduct and merge with oncoming vehicles and bicycles. The roadway configuration also contains line of sight and traffic merging difficulties at the intersection of North Spring Street and Baker Street due to the semi-blind sight distance issue created by the building at Raphael Junction Block building, located at 1635 North Spring Street (Assessor's Parcel Number (APN) 5409-002-005).

To address these concerns, all of the project alternatives involving viaduct widening (Build Alternatives 2 and 3) would reconfigure the North Spring Street/Baker Street intersection and create a cul-de-sac by closing the Aurora Street/North Spring Street intersection. Once the intersection of Aurora Street/North Spring Street intersection is closed, motorists would be redirected from Aurora Street onto Baker Street and ultimately onto North Spring Street which continues westbound (right turn only) through the existing intersection (left turns/eastbound travel at this intersection is not permitted).

To accommodate motorists, bicycles and pedestrians traveling from Baker Street eastbound/left turns onto North Spring Street, a new signalized 4-way intersection would be constructed that would extend Wilhardt Street north to join Baker Street. The new roadway would include sidewalks and bike lanes that would join the existing sidewalks and the new bike lanes on North

Spring Street from Wilhardt Street to the intersection of Avenue 18, North Broadway, and North Spring Street.

This project has independent utility because it would address the seismic deficiencies associated with the viaduct as well as the design and geometric deficiencies associated with the viaduct and its adjoining approach roadways and improve pedestrian and bicycle travel. Based on the project features to meet the purpose and need, the logical termini would extend from the intersection of North Spring Street with North Broadway and Avenue 18 westward to the existing intersection of North Spring Street with Baker Street.

## 1.3 Project Description

This section describes the proposed project and the design alternatives that were developed by a multidisciplinary team to achieve the project purpose and need while avoiding or minimizing environmental impacts.

### 1.3.1 Alternatives Development Process

The City considered and screened several alternatives throughout the project development process. Through that process, the City evaluated and developed alternatives or eliminated alternatives from further consideration utilizing the following criteria:

- Ability to meet project purpose and need;
- Cost effectiveness;
- Constructability;
- Extent of environmental impact and community disruption;
- Funding eligibility; and
- Historic preservation.

Interested agencies, including the Los Angeles Department of Transportation (LADOT), Los Angeles Conservancy, City of Los Angeles Cultural Heritage Commission (CHC), City of Los Angeles Planning Department, and staff of the City's Los Angeles River Revitalization Plan (LARRP), along with the public (see Chapter 4, Comments and Coordination), were afforded several opportunities to provide input on the development and selection of alternatives through the scoping and public outreach processes. Please refer to *Appendix P* for additional information regarding the preliminary alternatives screening process.

As a result of the alternatives screening process, four build alternatives (Build Alternatives 1, 2, 3 and 4) were compiled and, together with the No-Build Alternative, were carried forward for full environmental impact assessment in the DEIR/EA. After the public comment period was

complete, the City determined that Build Alternative 4 would result in severe and unavoidable impacts to the Los Angeles State Historic Park (LASHP) and as a result, it was dropped from further consideration. A detailed description of each remaining build alternative is presented in Section 1.3.2.

After reviewing the alternatives presented in the environmental document on June 9, 2010, the Los Angeles City Council Transportation Committee recommended that the City formulate additional options for consideration. Therefore, the City's BIP explored several design options that would improve the viaduct's structural and roadway deficiencies, while taking into account its historic features.

During the process of selecting additional design options, the City worked with local interest groups and stakeholders following the *Guidelines for Historic Bridge Rehabilitation and Replacement* prepared for the American Association of State Highway and Transportation Officials (AASHTO). A new design option for Build Alternative 2 was identified during this process, which is presented in Section 1.3.2.3. A detailed discussion elaborating on the alternatives considered and eliminated can be found in Section 1.3.3.

### 1.3.2 Project Alternatives

This section describes the project alternatives. In addition to the No Build Alternative, three build alternatives were brought forth for environmental assessment. The build alternatives are:

- Build Alternative 1: Seismic Retrofit Only
- Build Alternative 2: Widened Viaduct- Skewed Wilhardt Street Extension (Offset T-Intersection)
- Build Alternative 3: Widened Viaduct- Tangential Wilhardt Street Extension

Build Alternative 2 also includes a new design option (widening only the south side of the viaduct). Design features that are common to these alternatives are shown in *Table 1-1*.

**Table 1-1 Build Alternatives Common Characteristics**

| Alternative | Seismic Retrofit | Viaduct Widening | Roadway Improvements | Utility Relocation | Right-of-Way Acquisition |
|---|---|---|---|---|---|
| **Build 1** | Yes | No | No | No | No |
| **Build 2** | Yes | Yes (*) | Yes (1) | Yes | Yes |
| **Build 3** | Yes | Yes | Yes (2) | Yes | Yes |

(*)Design Option A includes widening only the south side of the viaduct by 23 feet (to outside rail).
(1) Wilhardt Street extended on skew, avoids Raphael Junction Block building
(2) Wilhardt Street extended on direct tangent, impacts Raphael Junction Block building.

#### 1.3.2.1 No Build Alternative

Under the No Build Alternative, the North Spring Street Viaduct and North Spring Street would continue to serve as an access over the Los Angeles River. No physical improvements, including seismic strengthening, to either the viaduct or local roadway system (North Spring, Baker, and Aurora Streets) would be made. The existing 4-foot-wide sidewalk on the north side of the viaduct would not be improved and bicyclists would continue competing with vehicular traffic using the existing narrow exterior lanes on each side of the viaduct.

#### 1.3.2.2 Build Alternative 1

Build Alternative 1 consists of seismic retrofit construction only. This would not change the outside shape of the existing structure or dramatically reconfigure the viaduct's existing pier in the Los Angeles River. The seismic retrofit work would eliminate potential structural collapse that could occur under a designated seismic event. The designated seismic event is based on recorded maximum credible earthquakes at controlling faults adjacent to the project area. This alternative would involve both the superstructure (i.e., structure elements above top of the piers) and substructure (i.e., structure elements below top of the piers, such as pier walls and foundations) zones of the viaduct. Construction of Build Alternative 1 is expected to last approximately 12 months.

Superstructure modifications would add steel pipe seat extenders encased in concrete diaphragm bolsters at expansion joints of west side approach spans. This addition would be placed across the viaduct expansion joints below the viaduct deck and allow the superstructure to slide away from the expansion joint under a designated seismic event without dropping off the existing nonstandard seats (i.e., bearing widths that support the superstructure).

The steel pipes would flank the expansion joints of pier walls under the west side approach spans and at the arch span abutments. The steel pipes would be installed in cored holes through the existing concrete diaphragms between the T-beams of the approach spans. Further, the steel pipes would be encased in new concrete diaphragms flush with the bottom of the T-beams and would not be visible from vantage points adjacent to the viaduct.

Substructure improvements would include (see *Figure 1-4*):

- Encasing the existing columns under the west side approach spans with a composite fiber wrapping to increase shear capacity. The composite fiber wrapping would be covered with a flame-proof spread coating that matches the existing concrete texture and color. The composite fiber wrapping would be extended underground to the bottom of the columns by

excavating the soils and removing and reconstructing the concrete base curbs around the columns;

- Reconstructing the concrete base curbs at the approach span columns that are to be fiber wrapped;
- Extending the seat width at the expansion joints of approach span abutments with a concrete bracket. This retrofit work would increase the support width of the substructure to prevent superstructure off-seating when the viaduct superstructure moves under a designated seismic event;
- Wrapping spandrel columns (i.e., the vertical columns on top of arch ribs in the triangular open sections that are on either side of the arch span) and a portion of the arch ribs and rib struts under the two arch spans (i.e., the horizontal beams on the underside of the viaduct between the arch ribs) over the Los Angeles River with composite fiber wrapping to increase shear capacity;
- Strengthening short spandrel columns at the apex area of the arch ribs with concrete in-fill walls aligning with faces of the spandrel columns; and
- Strengthening the spandrel column pedestals (i.e., bases of spandrel columns on top of arch ribs) by adding a one-foot wide concrete border to the down-slope side and lateral sides of the pedestals. The top of the concrete border would match with the top of the existing spandrel column pedestal.

#### *Roadway Improvements*

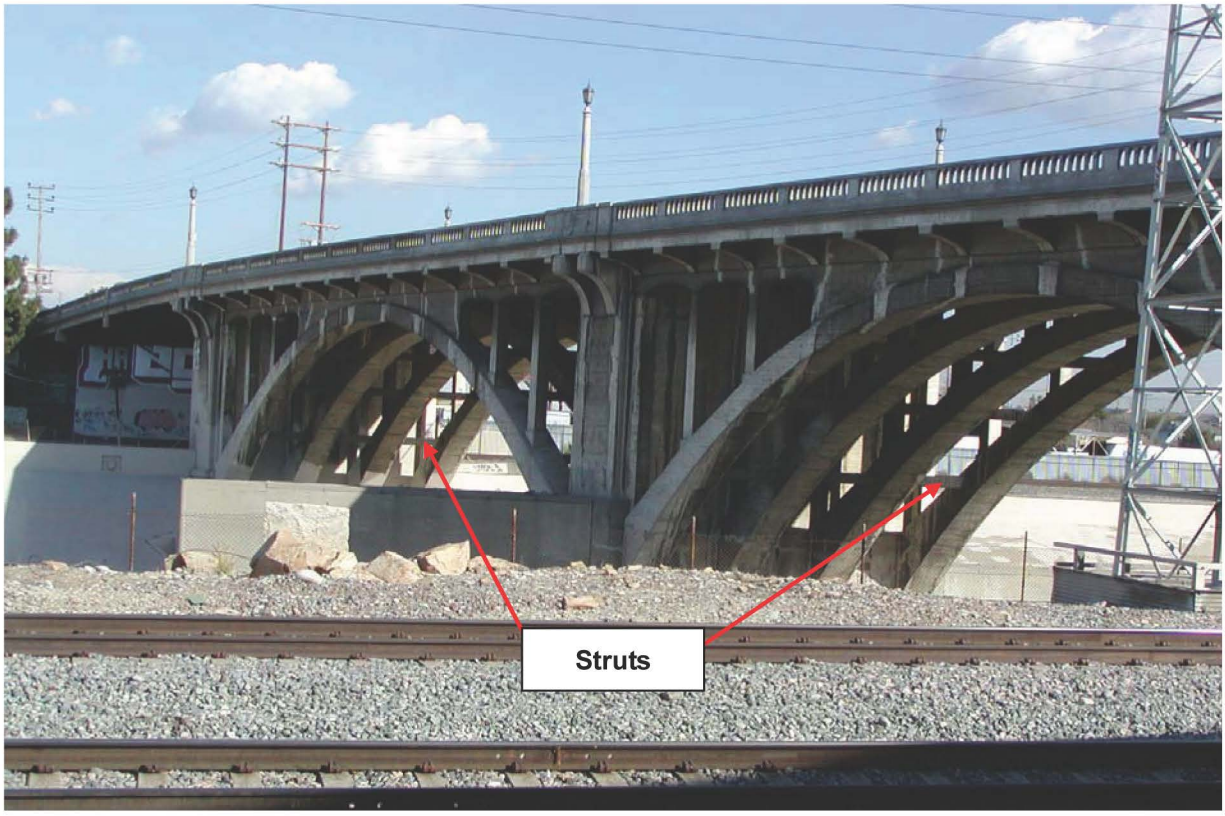
There would be no roadway improvements under this alternative.

#### *Utility Relocation*

There would be no utility relocation under this alternative.

### 1.3.2.3 Build Alternatives 2 and 3

Build Alternatives 2 and 3 would be constructed in two phases. Phase 1 would include all of the seismic, viaduct, and roadway improvements from the east end of the project limits to just east of Wilhardt Street. Phase 2 would include construction of the Wilhardt Street Extension. Construction of the two phases is expected to last a total of 4.5 years. Close coordination with utility owners would be established as part of the design process and maintained through its construction. Phase 1 and common design features of Build Alternatives 2 and 3 are outlined below. Phase 2 is then presented individually for each alternative.




EXISTING VIADUCT SPANDREL COLUMN AND STRUT FEATURES

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 1-4

### *Phase 1*

Seismic Retrofit

For the single side widening, the seismic improvements for Build Alternatives 2 and 3 would be the same as the Alternative 1 as the existing structure would not gain additional lateral support from single side widening. For the dual side widening, the seismic retrofit would be essentially the same as the Alternative 1 except that the amount of steel pipe seat extenders encased in concrete diaphragm bolsters at arch spans would be reduced because the existing structure would gain structural lateral supports from dual side widening.

Viaduct Improvements

Viaduct improvements common to Build Alternatives 2 and 3 include:

- Construction of 10-foot sidewalks, railing system, and electroliers along both sides of the structure;
- Widening of the viaduct deck to match the existing cross-section of North Spring Street immediately east and west of the viaduct touch down points;
- Installation of 5-foot shoulders that would accommodate bicycle operations along each side of the viaduct;
- Reconstruction of the staircase from the north side of the widened viaduct to the Downey Recreation Center; and
- Reconstruction of portions of the terraced slopes on the north and south side of North Spring Street east of the viaduct adjacent to the Downey Recreation Center (north side widening only)

In addition, Build Alternatives 2 and 3 would widen the existing 50-foot-wide structure by approximately 20 feet on each side. This would require either modification of the existing abutments or construction of new ones. The City favors construction of new abutments and substructure elements that resemble the existing elements. Thus, the new design would incorporate seat-type abutments founded on spread footings similar to the existing arrangement. The viaduct bents at the widened portion would primarily consist of single-column bents and pier walls similar to the existing system. The new substructure would match the existing system to preserve, to the extent possible, the aesthetic and historical appearance of the existing structure (see *Figure 1*-5).

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| ENGINEERING | PHOTO SIMULATION - VIADUCT DESIGN CONCEPT WITH SIMILAR FEATURES TO EXISTING BEAUX-ARTS DESIGN | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 1-5 |

*Viaduct Design Option A (Reduced Single-Sided Widening)*

Viaduct Design Option A for Alternative 2 provides the minimum widening necessary to achieve an SR of 80. This design option would widen the viaduct along only the south (downstream) side by approximately 23 feet (to outside rail). The widened viaduct would maintain two 11-foot traffic lanes in each direction and a 4-foot median. This design option would also include a 5-foot bike lane and a 5-foot sidewalk on each side of the viaduct between the outer railings. To match the approach roadway on the west end, the existing wingwall on the north side would be replaced with a new one at an approximately 5-degree skew. The single-sided widening on the south side would either be similar to the existing Beaux-Arts design or would be a new design that is compatible with the historic viaduct (see *Figures 1-6* and *1-7*).

Roadway Improvements

Roadway improvements common to Build Alternatives 2 and 3 include (see *Figures 1-8, 1-9,* and *1-10*):

- Closure of Aurora Street at the existing intersection with North Spring Street;
- Closure of both North Spring Street frontage roads adjacent to the viaduct northeast of Aurora Street;
- Extension of the existing left turn pocket on North Spring Street (located west of the North Broadway/Avenue 18 5-point intersection) westerly for a total of 250 feet;
- Repair of approach roadways to address pavement cracking and differential settlement issues at both ends of the viaduct; and
- Construction of a pedestrian walkway that would connect the northern portion of the Downey Recreation Center with its southern portion. The walkway (constructed of decomposed granite) would begin at the southwest corner of the northern Downey Recreational Center on the north side of the viaduct, and then cross under the viaduct. The walkway would continue in a southerly direction to existing park facilities located within the southern portion of the Downey Recreational Center. To provide added security measures along the pedestrian walkway under the viaduct, light fixtures would be mounted on the viaduct soffit. As part of enhancing the physical appearance of the walkway corridor, various types of landscaping may be installed adjacent to the pedestrian walkway.

Additional roadway improvements for Phase 1 Build Alternatives 2 and 3 would include construction of bike lanes on both sides of the viaduct. The new bike lanes would become part of a continuous bikeway system upon future implementation of nearby gap closures in accordance with the City's 2010 Bicycle Plan.

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| | PHOTO SIMULATION OF VIADUCT DESIGN CONCEPT WITH DIFFERENTIATED FEATURES - SINGLE ARCH OPTION |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 1-6 |

| | | |
|---|---|---|
| ENGINEERING | PHOTO SIMULATION OF VIADUCT DESIGN CONCEPT WITH DIFFERENTIATED FEATURES - DOUBLE ARCH OPTION | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 1-7 |

| | |
|---|---|
| | PHOTO SIMULATION OF VIADUCT IMPROVEMENTS FOR ALTERNATIVES 2 AND 3 - EASTBOUND VIEW |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 1-8 |

| | | |
|---|---|---|
| ENGINEERING | PHOTO SIMULATION OF VIADUCT IMPROVEMENTS FOR ALTERNATIVES 2 AND 3 - WESTBOUND VIEW | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 1-9 |

| | | |
|---|---|---|
| ENGINEERING | PHOTO SIMULATION OF VIADUCT IMPROVEMENTS FOR DESIGN OPTION A - WESTBOUND VIEW | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 1-10 |

Utility Relocations

Several existing utilities conflict with Build Alternatives 2 and 3 improvements and would require either relocation or protection during construction. Investigations indicate the presence of the following utilities within the project area:

- City-owned storm drains, sewers lines, and water mains;
- Franchise-owned telephone and cable-related facilities;
- Franchise-owned fiber-optic lines; and
- Los Angeles Department of Water and Power power lines.

### *Phase 2*

Roadway improvements common to Build Alternatives 2 and 3 would include constructing a 4-way signalized intersection at Wilhardt Street and reconfiguring the Baker Street intersection with North Spring Street. Other improvements would differ by alternative as discussed below.

Build Alternative 2

*Roadway Improvements*

Phase 2 of Build Alternative 2 would include constructing a 4-way intersection at North Spring Street and Wilhardt Street after extending Wilhardt Street north to Baker Street (see *Figures 1-11* and *1-12*). The Wilhardt Street extension, north of North Spring Street, would be aligned on a skew of approximately 7 degrees to the northeast. This alternative would require the acquisition and demolition of one privately owned parcel, the Raphael Junction Block building, a Los Angeles HCM.

In addition, Build Alternative 2 would:

- Widen northeast-bound North Spring Street at the Wilhardt Street intersection to accommodate a left-turn lane from North Spring Street onto Wilhardt Street;
- Widen southwest-bound North Spring Street to accommodate a left-turn lane onto Wilhardt Street;
- Widen southwest-bound North Spring Street to accommodate a right-turn lane onto Wilhardt Street;
- Install new sidewalks and bike lanes on both sides of the extended Wilhardt Street;
- Provide a bicycle lane on the north and south sides of North Spring Street from the widened Viaduct to the new signalized 4-way intersection at Wilhardt Street; and

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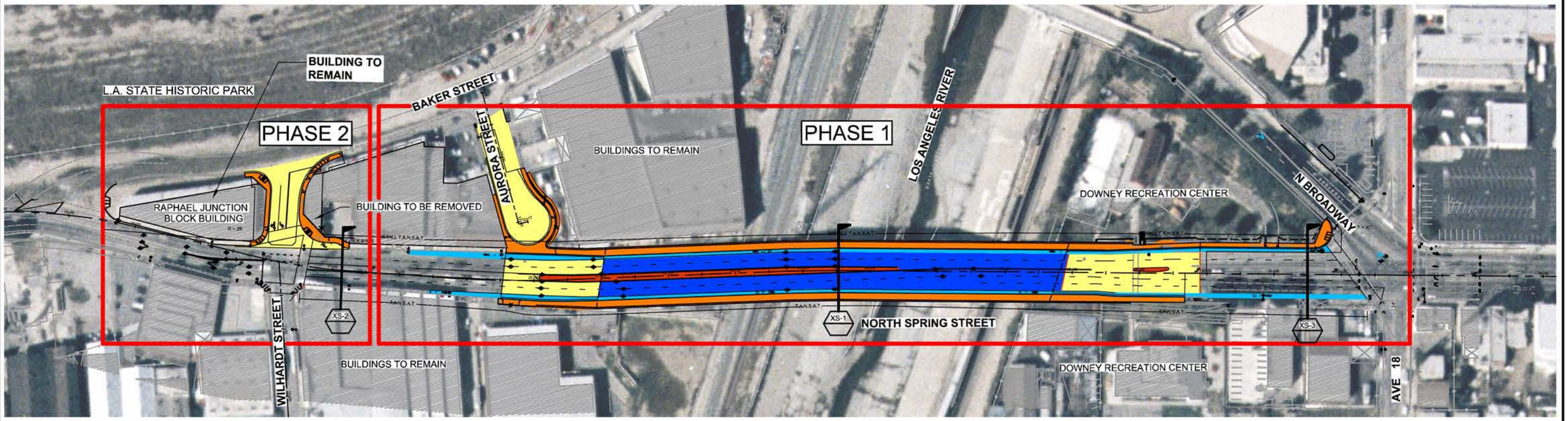
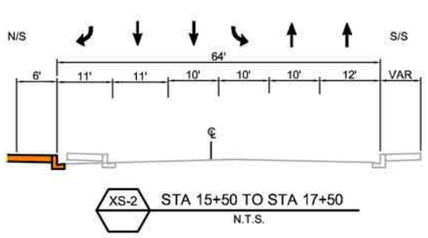
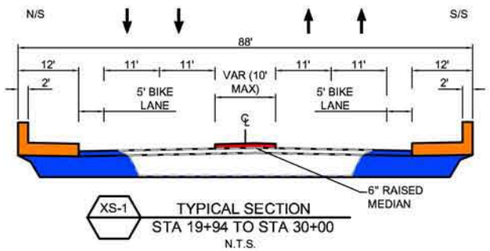
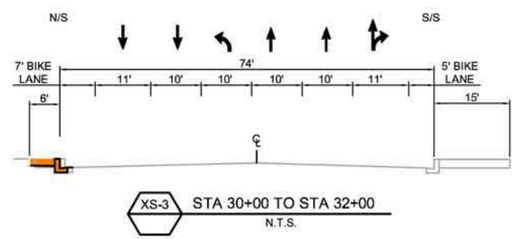



XS-2 STA 15+50 TO STA 17+50
N.T.S.




XS-1 TYPICAL SECTION
STA 19+94 TO STA 30+00
N.T.S.




XS-3 STA 30+00 TO STA 32+00
N.T.S.

NOT TO SCALE

LEGEND

- NEW CURB/GUTTER AND SIDEWALK
- NEW ROADWAY
- NEW LANDSCAPED MEDIAN
- NEW HARDSCAPED MEDIAN
- BIKE LANE

**PLAN**
**MARCH, 2010**

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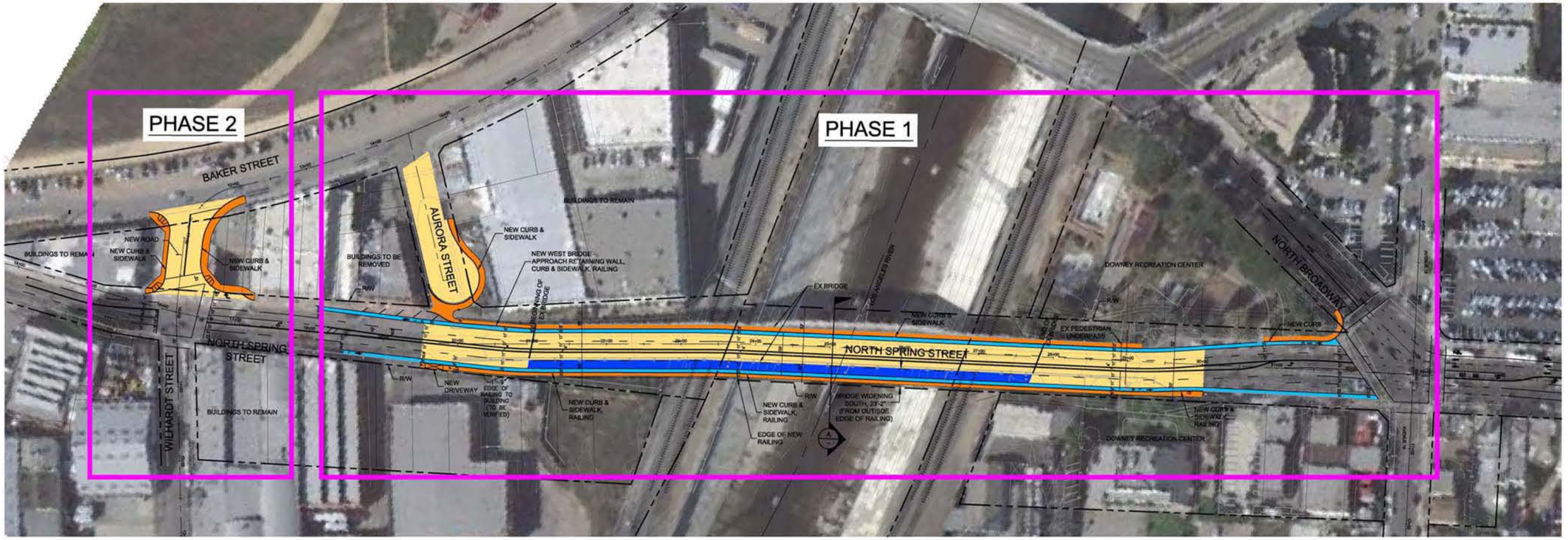
BUILD ALTERNATIVE 2

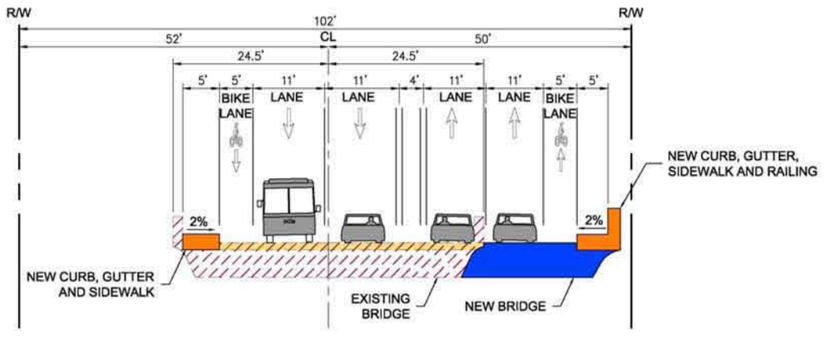
NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 1-11




## HATCH / LINE LEGEND

- NEW BRIDGE
- EXISTING BRIDGE
- BIKE LANE
- NEW PAVEMENT
- NEW CURB/GUTTER AND SIDEWALK




TYPICAL BRIDGE SECTION (A)
NOT TO SCALE

LA DPW ENGINEERING™

BUILD ALTERNATIVE 2 WITH DESIGN OPTION A

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 1-12

- Reconfigure the Baker Street/North Spring Street intersection to address line-of-sight deficiencies.

Build Alternative 3

*Roadway Improvements*

Phase 2 of Build Alternative 3 would include constructing a 4-way intersection at North Spring Street and extending Wilhardt Street north to Baker Street (see *Figure 1-13*). The Wilhardt Street extension would be aligned on a direct tangent arc (traditional "T" intersection) to join Baker Street. This alternative would require acquisition and demolition of two privately owned parcels, the building located at 1701 North Spring Street (APN 5409-002-006) and the Raphael Junction Block building.

In addition, Build Alternative 3 would:

- Remove the Baker Street roadway west of the Wilhardt extension including the Baker Street/North Spring Street intersection;
- Widen northeast-bound North Spring Street at the Wilhardt Street intersection to accommodate a left-turn lane from North Spring Street onto Wilhardt Street;
- Widen southwest-bound North Spring Street to accommodate a left-turn lane onto Wilhardt Street;
- Widen southwest-bound North Spring Street to accommodate a right-turn lane onto Wilhardt Street;
- Install new sidewalks to follow the return of the extended Wilhardt Street intersection with the realigned Baker Street; and
- Maintain the existing sidewalk and install new bike lanes along both sides of North Spring Street from the widened viaduct to the new signalize 4-way intersection at Wilhardt Street.

#### 1.3.2.4 Identification of a Preferred Alternative

Build Alternative 1 would correct existing seismic vulnerability issues specific to the viaduct, but would not meet the other two primary purposes, which are to eliminate existing and geometrical design deficiencies associated with the viaduct and its adjoining approach roadways, and to create and improve pedestrian and bicycle travel through the study area. For this reason, Build Alternative 1 is not selected as the preferred alternative.

Build Alternative 2 would meet all the objectives of the proposed project. It would avoid demolition of a historic resource (the Raphael Junction Block building) and acquisition of parklands (LASHP); however, it would require alterations to both the north and south sides of

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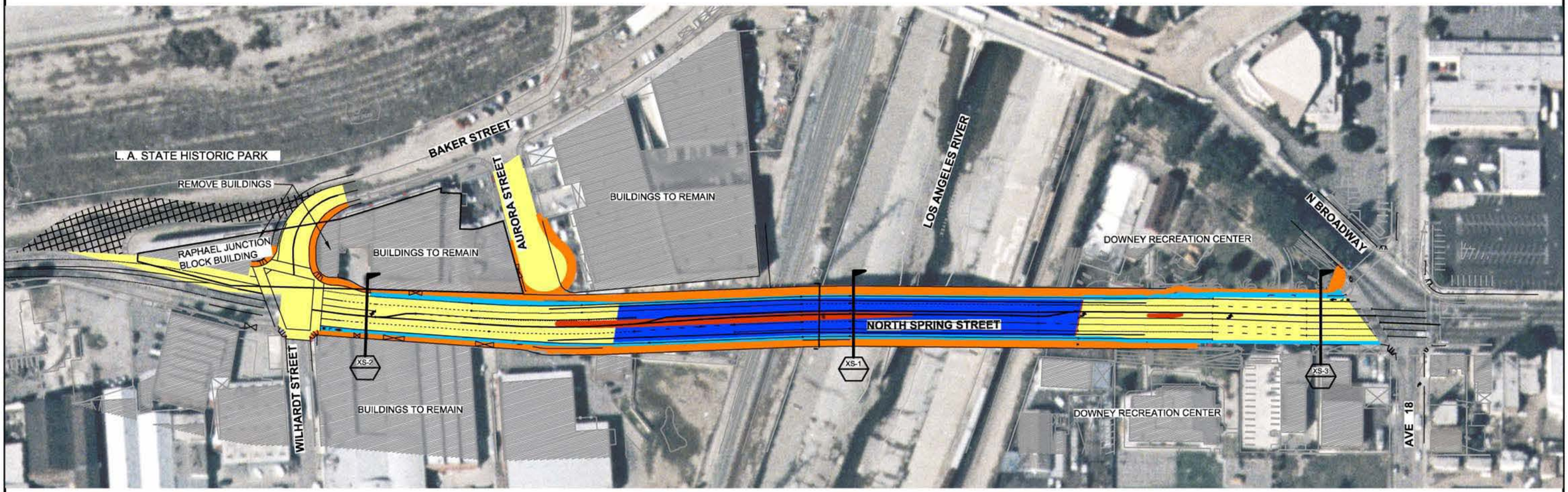


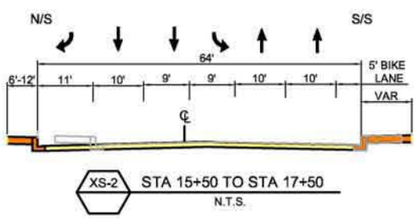


XS-2 STA 15+50 TO STA 17+50
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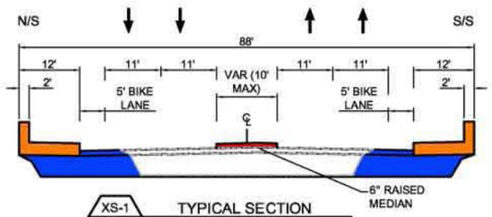


XS-1 TYPICAL SECTION
STA 19+94 TO STA 30+00
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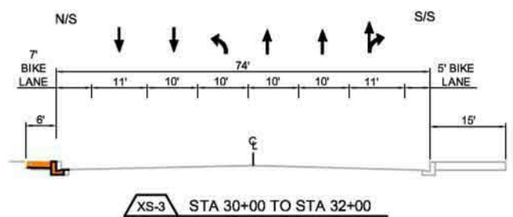


XS-3 STA 30+00 TO STA 32+00
N.T.S.

LEGEND

- NEW BRIDGE
- EXISTING BRIDGE
- NEW CURB/GUTTER AND SIDEWALK
- NEW ROADWAY
- REMOVE ROADWAY
- BIKE LANE

NOT TO SCALE

**PLAN**
**MARCH, 2010**

LA DPW ENGINEERING™

BUILD ALTERNATIVE 3

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 1-13

the viaduct, a historic resource. Implementation of Build Alternative 2 with Design Option A would require that some design exceptions be made; however, it would reduce the effect the project would have on the viaduct by eliminating alterations to the north side of the viaduct. For this reason, Build Alternative 2 with Design Option A is selected as the preferred alternative.

Build Alternative 3 would meet all the objectives of the proposed project, but would require demolition of a historic resource (the Raphael Junction Block building). For this reason, Build Alternative 3 is not selected as the preferred alternative.

### 1.3.3 Alternative Considered but Eliminated from Further Discussion

Several alternatives proposed by the project team and the public during the scoping process were considered during the project development and screening phase. The project design team considered each of the alternatives; however, some of the alternatives were not brought forward for further consideration because they 1) did not meet the project purpose and need, 2) were found to be infeasible to construct in a cost effective manner with available funding, or 3) the alternative would cause considerable environmental impacts. The following subsections provide brief descriptions of Alternatives A, B, C, and D, which were considered but eliminated from further discussion and were therefore not considered for full preliminary design and environmental analysis during the DEIR/EA. In addition, Build Alternative 4 was analyzed in the DEIR/EA but was subsequently eliminated because of impacts to the LASHP.

An FEIR/EA was prepared in May 2010, identifying Alternative 2 as the preferred alternative. After reviewing the alternatives presented in the FEIR/EA, the City of Los Angeles City Council Transportation Committee recommended that the City formulate additional options for consideration that would improve the viaduct's structural and roadway deficiencies, while taking into account its historic features. In response, the project team considered five additional alternatives (Alternatives E, F, G, H, and I) and a new design option for Build Alternative 2 (discussed in Section 1.3.2.3 above) in coordination with stakeholder groups. The following subsections provide brief descriptions of the additional alternatives considered and a discussion of why they were eliminated from further consideration.

#### 1.3.3.1 Build Alternative 4

Build Alternative 4 would extend Baker Street through the LASHP to connect to Mesnager Street at its current intersection with North Spring Street.. Under Build Alternative 4, Baker Street would be extended and realigned through a portion of the LASHP to connect with a new intersection at extended Mesnager Street.

### *Seismic Improvements*

Build Alternative 4 would include the same improvements as those included in dual-sided widening for Alternatives 2 and 3.

### *Viaduct Improvements*

Build Alternative 4 would include the same viaduct improvements as those included in Build Alternatives 2 and 3. In addition to improvements discussed for Build Alternatives 2 and 3, Build Alternative 4 would:

- Create a striped median 5-foot-wide (varying) from a point approximately 500 feet west of the intersection of North Spring Street and Avenue 18, to a point approximately 100 feet east of the current intersection of North Spring Street and Aurora Street; and
- Install an 8-foot-wide sidewalk along each side of the viaduct.

### *Roadway Improvements*

Alternative 4 would include the same roadway improvements as those included in Build Alternatives 2 and 3. In addition to improvements discussed for Build Alternatives 2 and 3, Build Alternative 4 would:

- Extend Baker Street through the LASHP to connect to Mesnager Street at its current intersection with North Spring Street;
- Extend the existing eastbound left-turn pocket by 340 feet at the east end of the viaduct;
- Add an eastbound traffic lane to match the existing five-point intersection of North Spring Street, North Broadway Street, and Avenue 18; and
- Continue the sidewalk along both sides, and a bicycle lane on the north and south side of North Spring Street from the intersection of Avenue 18 to the intersection with the extended Wilhardt Street, which would match future roadway improvements.

After the public comment period was complete, the City determined that Alternative 4 would result in severe and unavoidable impacts to the LASHP and as a result, it was dropped from further consideration.

#### 1.3.3.2 Alternative A: Tangential Wilhardt Street Extension with Narrow Median and Sidewalk

Alternative A would widen the existing viaduct by approximately 20 feet on each side to create a 90-foot-wide by 700-foot-long elevated structure extending northeasterly from Aurora Street on the west to a point approximately 500 feet west of Avenue 18 on the east. One additional

eastbound traffic lane would be extended to match the existing five-point intersection of North Spring Street, North Broadway, and Avenue 18.

Alternative A would be similar to Build Alternative 2 with a few exceptions. Under Alternative A, the striped median would be 5-feet-wide instead of 10 feet wide as in Build Alternative 2, the sidewalks in Alternative A would be 2 feet narrower than Build Alternative 2, and the extension of the existing eastbound left-turn pocket would be 240 feet longer than Build Alternative 2.

Other differences include: the addition of an eastbound traffic lane to match the existing five-point intersection; the closure of Baker Street west of its new intersection with the extended Wilhardt Street; the reconstruction of a terraced slope from the north and south side of the viaduct to the Downey Recreation Center; and the continuation of the sidewalk along both sides (north and south), with a bicycle lane on the south side of North Spring Street from the intersection of Avenue 18 to the intersection with the extended Wilhardt Street, which would match the future roadway improvements.

Alternative A would require the complete acquisition of the property located at 1701 North Spring Street (APN 5409-002-006), and partial acquisition of the Raphael Junction Block building to facilitate the extension of Wilhardt Street north beyond North Spring Street to connect to the realigned Baker Street. Alternative A was eliminated from further consideration because it would require demolition of the Raphael Junction Block Building, a historic resource.

#### 1.3.3.3 Alternative B: Widen South Side of North Spring Street Viaduct

Alternative B would widen the existing viaduct by approximately 40 feet on the south side to create a 90-foot-wide by 700-foot-long elevated structure extending northeasterly from Aurora Street on the west to a point approximately 500 feet west of Avenue 18 on the east. Alternative B was eliminated from further consideration because widening the viaduct only to the south side versus the north would require greater property impacts, including removal of buildings, on the south side of the viaduct.

#### 1.3.3.4 Alternative C: Widen North Side of North Spring Street Viaduct

Alternative C would widen the existing viaduct by approximately 40 feet on the north side (the Aurora Street side), resulting in a 90-foot-wide by 700-foot-long elevated structure extending northeasterly from Aurora Street on the west to a point approximately 500 feet west of Avenue 18 on the east. Alternative C was eliminated from further consideration because widening the viaduct only on the north side would create the need for larger property impacts, including removal of buildings, on the north side.

#### 1.3.3.5 Alternative D: Bicycle/Pedestrian Overpass

Alternative D would include constructing a separate pedestrian and bicycle overpass to the north or south of the North Spring Street Viaduct. Alternative D was eliminated from further consideration because pedestrians and bicyclists, after crossing the new bridge on one side of the viaduct, would then need to cross over North Spring Street again to continue along the correct side of the roadway. The multiple crossings would impede traffic and create safety concerns for bicyclists and pedestrians. Additionally, this alternative would not address the geometric deficiencies that currently exist on the viaduct, and the City would forfeit the HBP rehabilitation funding as this funding source does not cover the construction of new structures.

#### 1.3.3.6 Alternative E- Retrofit Only- Remove Existing Sidewalk and Reconfigure Lanes Within Existing Roadway

Alternative E would be similar to the Build Alternative 1, except it would include removing the existing sidewalk on the north side of the viaduct. The viaduct would not be widened, but the existing 4-foot sidewalk on the north side of the viaduct would be removed to gain an additional four feet of roadway width and the four lanes of vehicle traffic would be restriped to fit within the existing viaduct railings. No other improvements to the viaduct or approaching roadways would be made. Alternative E was eliminated from further consideration is because even with the additional four feet of roadway width, the viaduct deck would not be wide enough to fit the four minimum lane widths and median and it would not provide a safe route for bicycles or pedestrians across the viaduct.

#### 1.3.3.7 Alternative F- Downgrade North Spring Street

Alternative F would include seismically upgrading the viaduct but not widening the structure. The North Spring Street roadway classification would be downgraded to reduce the number of lanes to one in each direction to avoid widening the viaduct, while providing standard vehicular lane widths and bicycle lanes. Alternative F was eliminated from further consideration because reducing the number of traffic lanes along North Spring Street would not accommodate existing or anticipated traffic in the area. Additionally, North Spring Street is currently striped for two lanes of traffic on both the east and west sides of the viaduct; reducing the number of lanes across the viaduct would cause a bottle-neck condition on either side of the approaches as vehicles would have to merge from two lanes to one lane to cross the river.

#### 1.3.3.8 Alternative G- Reversible Lane

Alternative G would include seismically upgrading the viaduct but not widening the structure. The existing roadway deck would be striped for three lanes instead of four lanes and the middle

lane would act as a reversible lane. The reversible lane would be utilized for west-bound traffic in the morning peak hours and would reverse to accommodate east-bound traffic during the evening peak hours. This alternative would require three overhead directional signs with LED lights to advise drivers of which lanes to travel.

Alternative G was eliminated from further consideration because the short distance between Wilhardt Street and the 5-point intersection at Avenue 18 along North Spring Street would not allow vehicles to make the transition to the reversible lane and back again before reaching the intersection. This alternative would also create too many signalized intersections within the short span of road, and would require three overhead directional signs with LED lights to be structurally added to the viaduct, which could impact the viaduct's historic integrity.

#### 1.3.3.9 Alternative H- Dual Stand Alone Pedestrian/ Cyclist Structure

Alternative H would include adding new free standing pedestrian-cyclist structures to both sides of North Spring Street, and creating new connections from the freestanding bicycle/pedestrian bridges to North Spring Street on the north and south approaches. The viaduct would not be widened; however this alternative would require that the City forfeit the HBP rehabilitation funding or seek special dispensation from FHWA to leave the historic railing in place and fit traffic lanes in the existing deck. This alternative was eliminated from further consideration because it would not address the geometric deficiencies that currently exist on the viaduct, and the City would forfeit the HBP rehabilitation funding.

#### 1.3.3.10 Alternative I- Dual Cantilevered Pedestrian/ Cyclist Structure

Alternative I would include the construction of two cantilevered pedestrian/ cyclist structures off the existing viaduct. This alternative was eliminated from further consideration primarily because it was found to be structurally infeasible to construct. The existing viaduct deck is already cantilevered from the substructure and supported by decorative brackets which are considered character-defining to the historic viaduct. An added appendage would require removing the existing cantilever and decorative elements on both sides of the viaduct.

Also, appendages to the viaduct would require additional supports under the deck to carry the load of pedestrians, bicycles, and motor vehicles, and would require a crash barrier be constructed between vehicle lanes and sidewalks. Because there is not currently enough width between the existing railings to accommodate this design, the existing railings would need to be removed to provide a crash barrier, and the attached appendages would add a new visual element to the exterior of the viaduct that could adversely affect the existing look and feel of the historic viaduct.

#### 1.3.3.11 Transportation System Management and Transportation Demand Management Alternatives

Transportation System Management (TSM) strategies include increasing the efficiency of existing facilities, including: ramp metering; auxiliary lanes; turning lanes; reversible lanes and traffic-signal coordination. Transportation Demand Management (TDM) focuses on regional strategies for reducing the number of vehicle trips and vehicle miles traveled, as well as increasing vehicle occupancy. Examples of TDM strategies include ridesharing, maintaining rideshare databases, and providing limited rideshare services to employers and individuals. Because the project is not capacity enhancing, consideration of TSM and TDM strategies are not required.

### 1.3.4 Permits and Approvals Needed

The following are permits and approvals required for the project:

- Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB);
- Section 404 Permit from the U.S. Army Corps of Engineers (ACOE);
- Section 1602 Streambed Alteration Agreement from the California Department of Fish and Game (CDFG); and
- Approval for North Spring Street Viaduct highway-rail crossings alteration from the Public Utilities Commission (PUC).

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

## 2.1 Introduction

This chapter evaluates potential impacts to a range of environmental factors that would result from construction and operation of the build alternatives, as well as from the No Build Alternative, for the proposed project. Each factor is individually evaluated in terms of the affected environment (setting) and permanent and construction impacts. Avoidance, mitigation, and minimization measures are developed to reduce or avoid potential impacts.

As part of the environmental analysis conducted for this project, an Initial Study (IS), pursuant to the California Environmental Quality Act (CEQA), and a preliminary environmental study (PES), pursuant to the National Environmental Policy Act (NEPA) of 1969, as amended, were prepared. These documents were used to define any required special studies needed to identify the potential for the proposed project to impact the environment and to determine the appropriate scope for the environmental document to be prepared.

As part of the scoping and environmental analysis conducted for the project, the following environmental issues were considered but no adverse impacts were identified. Consequently, there is no further discussion regarding these issues in this document. *Table 2-1* summarizes the rationale by which selected environmental factors were determined not to be subject to potentially significant adverse effects by the proposed project.

### 2.1.1 Technical Studies

Environmental analyses presented in this chapter are primarily based on the results of several technical studies prepared for the proposed project. These studies consist of the following:

- Air Quality Technical Study (URS Corporation, January 2010);
- Air Quality Study Report (AMBIENT, April 2011);
- Archaeological Survey Report (URS Corporation, July 2006);
- Hazardous Materials Study (URS Corporation, updated November 2009);
- Historic Property Survey Report (URS Corporation and JRP Historical Consulting, July 2006;
- Historic Resources Evaluation Report (JRP Historical Consulting, July 2006);
- Location Hydraulic Study (Psomas, February 2011)
- Noise Study Report (URS Corporation, January 2008);

- Relocation Impacts Memorandum (City, March 2008 and May 2011);
- Traffic Analysis Summary (URS Corporation, January 2010); and
- Visual Impact Assessment (URS Corporation, March 2006).

The above technical studies are incorporated by reference and are available for review at the City of Los Angeles (City), Department of Public Works, Bureau of Engineering (BOE), and California Department of Transportation (Caltrans) District 7 office.

**Table 2-1 Environmental Factors Excluded From Discussion**

| Environmental Factor | Rationale for Exclusion |
|---|---|
| HUMAN ENVIRONMENT | |
| LAND USE | |
| Coastal Zones | The proposed project is not located within a designated coastal zone. |
| Wild and Scenic Rivers | There are no wild and scenic rivers in the vicinity of the proposed project. |
| Growth | The proposed project is primarily a safety project and is not capacity enhancing; therefore, it would not have the potential to affect growth in the area. |
| Farmlands/Timberlands | There are no farmland/timberland resources in the project area. |
| PHYSICAL ENVIRONMENT | |
| WATER QUALITY AND STORM WATER RUNOFF | |
| Violation of Wastewater Quality Standards | The proposed project would not involve generation of wastewater. |
| Mineral Resources | The proposed project consists of improvements to an existing facility and is located within a fully developed urban area. The project site is located on a fully developed portion of the Los Angeles that is designated by the California Geological Survey as “existing urbanized areas.” Furthermore, no mineral extraction activities are proposed; therefore, impacts resulting from the loss of mineral resources are not anticipated. |

### 2.1.2 Changes to Project Description

As discussed in Chapter 1, Design Option A was added to the project following circulation of the Draft Environmental Impact Report (DEIR)/Environmental Assessment (EA) to reduce impacts on the historic viaduct. Instead of widening the viaduct approximately 20 feet on each side, as would occur in Build Alternatives 2 and 3, Build Alternative 2 with Design Option A would include widening only the south side of the viaduct approximately 23 feet (to the outside rail); therefore, impacts resulting from demolition and widening to the north would not occur. The widening would extend approximately three feet farther to the south, but this area would remain within the area previously studied, and would not be expected to result in a substantial increase in impacts.

As compared to Build Alternatives 2 and 3, Build Alternative 2 with Design Option A would require a smaller footprint overall, and impacts resulting from this design option would be similar

to those identified in the DEIR/EA. In addition, avoidance, minimization, and mitigation measures identified for construction would be adequate for this new design option. Therefore, Design Option A would not have new or more substantial impacts not previously analyzed in the DEIR/EA, and is not discussed separately in Chapter 2.0, with the exception of Section 2.6 Visual Impacts, 2.7 Historic Resources, and 2.14 Noise.

### 2.1.3 Governing Laws, Regulations, and Standards

The analysis in this document assumes that, unless otherwise stated, the project would be designed, constructed and operated following all applicable laws, regulations, ordinances and formally adopted City standards (e.g., LAMC and BOE Standard Plans). Construction would follow the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., Standard Specifications for Public Works Construction and the Work Area Traffic Control Handbook) as specifically adapted by the City (e.g., The City of Los Angeles Department of Public Works Additions and Amendments to the Standard Specifications for Public Works Construction (a.k.a. "The Brown Book," formerly Standard Plan S-610)).

As a covered entity under Title II of the Americans with Disabilities Act (ADA), the City does not discriminate on the basis of disability and, upon request, will provide reasonable accommodation to ensure equal access to its programs, services, and activities.

## 2.2 Land Use

This section addresses potential impacts to existing and planned land uses within the project area that could result from implementation of the proposed project alternatives.

### 2.2.1 Regulatory Setting

The City of Los Angeles General Plan is composed of 11 citywide elements and land-use elements, which include 35 local area community plans. The community plans are the fundamental land-use policy documents for the City, and are intended to coordinate development within each of the several communities in the city. The project area lies within a portion of the Central City North and the Northeast Los Angeles Community Plans. The Los Angeles River serves as a boundary between these two community plan areas, as shown in *Figure 2-1*.

#### 2.2.1.1 Section 4(F) of the US Department of Transportation Act of 1966

Section 4(f) of the US Department of Transportation Act directs that the Federal Highway Administration (FHWA) must not approve of any project that would require the use of any publically owned land from a public park, recreation area or wildlife and waterfowl refuge of federal, state, or local significance unless there is no feasible and prudent alternatives to such use (49 USC Section 303 and 23 CFR Part 774). Section 6009(a) of the Federal Transportation Equity Act for the 21st Century (TEA-21) in 1999, and extended as the Highway Bridge Program (HBP) by the Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU) amends existing Section 4(f) legislation to simplify the processing and approval of projects that have only *de minimis* impacts on lands protected by Section 4(f).

A *de minimis* finding can be made for an impact to a park, recreation area, or wildlife and waterfowl refuge if:

- The transportation use of the Section 4(f) resource, together with any impact avoidance, minimization, and mitigation or enhancement measures incorporated into the project, does not adversely affect the activities, features, and attributes that qualify the resource for protection under Section 4(f);
- The official(s) with jurisdiction over the property are informed of FHWA's intent to make the *de minimis* impact finding based on their written concurrence that the project will not adversely affect the activities, features, and attributes that qualify the property for protection under Section 4(f); and
- The public has been afforded an opportunity to review and comment on the effects of the project on the protected activities, features, and attributes of the Section 4(f) resource.

Three properties located in the project area or surrounding area are protected under Section 4(f): the North Spring Street Viaduct (historic resource), the Downey Recreation Center (recreation facility), and the Los Angeles State Historic Park (LASHP) (recreation facility). The project would not result in the use of the LASHP, as defined by Section 4(f) (see discussion in Appendix B). A discussion of use of the North Spring Street Viaduct is included in Appendix B. It has been determined that impacts on the Downey Recreation Center would be *de minimis*, as described above. A discussion of these impacts is included in Section 2.2.7 below.

#### 2.2.1.2 Central City North Community Plan

The Central City North Community Planning Area is adjacent to downtown Los Angeles and is bounded by the Los Angeles River to the east, the City of Vernon to the south, Alameda Street, Cesar Chavez Avenue, Sunset Boulevard, and Marview Avenue to the west, and Stadium Way, Lilac Terrace, and North Broadway to the north. It includes symbolic cultural centers for three prominent ethnic groups, Chinese, Japanese, and Hispanic, encompassing Chinatown, parts of Little Tokyo, and the original Mexican pueblo. The Artists in Residence (AIR) District lies within the Central City North Planning Area, just east of the Little Tokyo district boundaries. The Central City North Community Plan encourages the continued and expanded development of a thriving AIR community.

One of the city's major industrial districts, the North Industrial Area, is also located within this planning area. The North Industrial Area is bounded by Bernard Street, North Main Street, Elysian Park, and the Los Angeles River. The preservation of industrial land-use designations is a main objective of the Central City North Community Plan.

Amended in December 2000, the Central City North Community Plan was developed in the context of promoting a vision of the area as a community that:

- Provides for various modes of non-motorized transportation/circulation, such as walking and bicycle riding (i.e., the City's 2010 Bicycle Plan);
- Promotes pedestrian oriented mobility and the utilization of the bicycle for commuter, school, recreational use, economic activity, and access to transit facilities;
- Encourages the safe utilization of easements and/or rights-of-way along flood-control channels, public utilities, railroad rights-of-way, and streets, wherever feasible for the use of bicycles and/or pedestrians;
- Assures that local bicycle routes are linked with the routes of neighboring areas of the city; and
- Requires the installation of sidewalks with all new roadway construction and substantial reconstruction of existing roadways.

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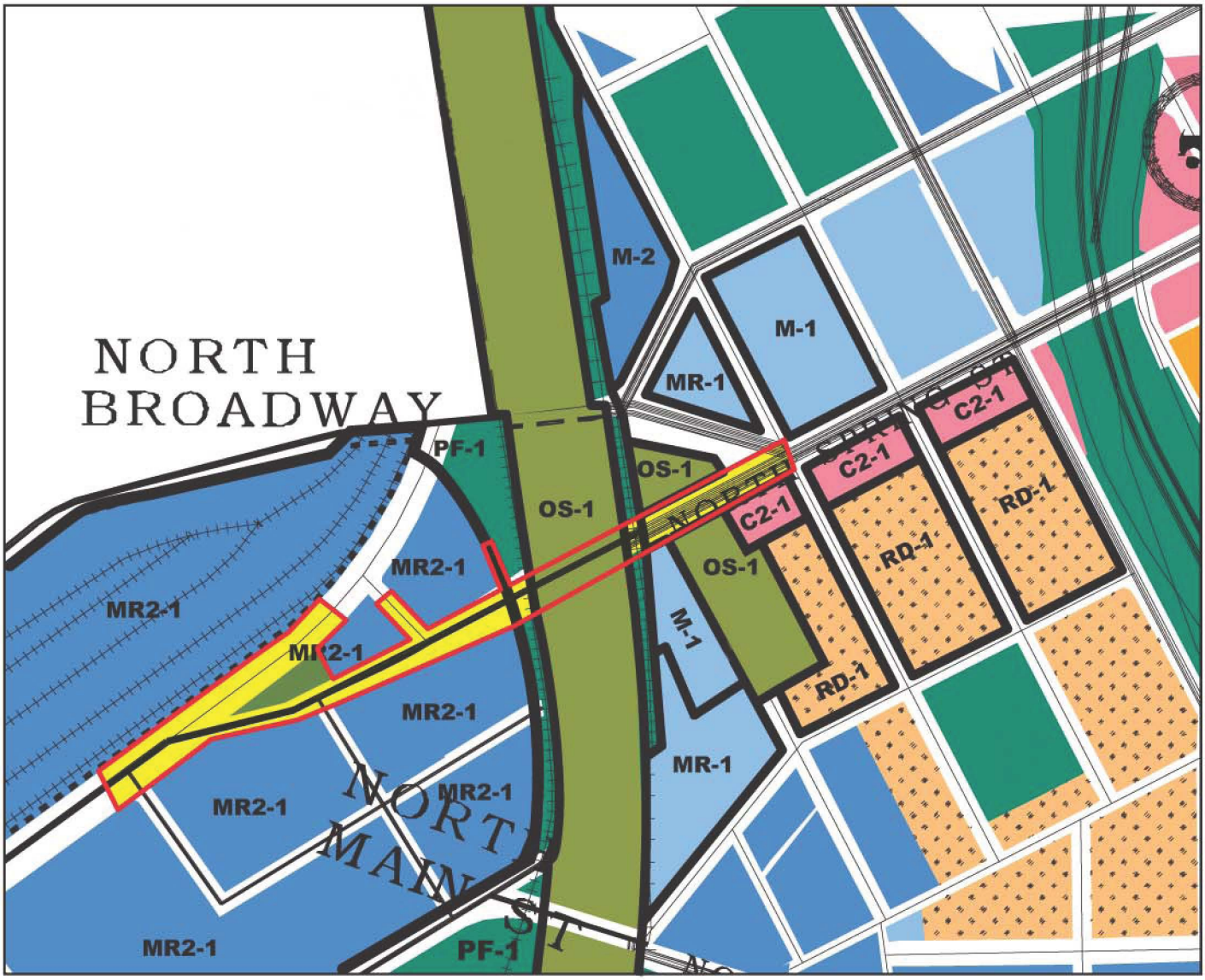


## LAND USE

| RESIDENTIAL | | | | | |
|---|---|---|---|---|---|
| LOW DENSITY | | CORRESPONDING ZONES[14] | MULTIPLE FAMILY | | CORRESPONDING ZONES[14] |
| | MINIMUM | OS,A1,A2,RE40 | | LOW MEDIUM I | R2,RD3,RD4, RZ3,RZ4,RU |
| | VERY LOW | RE20,RA,RE15, RE11 | | LOW MEDIUM II | RD1.5,RD2, RW2,RZ2.5 |
| | LOW | RE9,RS,R1,RU, RD6,RD5 | | MEDIUM | R3 |
| COMMERCIAL | | | INDUSTRIAL | | |
| | GENERAL[6] | C1,CR,C1.5, C2,C4,P[4,5],RAS3 | | COMMERCIAL MANUFACTURING[6] | CM,P |
| | NEIGHBORHOOD[6] | C1,C1.5,P[4,5], C2,C4,RAS3 | | LIMITED[6] | CM,M1,MR1,P |
| | COMMUNITY[6] | CR,C2,C4,P,PB,[1] RAS3 | | LIGHT[6] | M2,MR2,P |
| | | | | HEAVY[6] | M3,P |
| OPEN SPACE, PUBLIC FACILITIES | | | | SITE | |
| | OPEN SPACE | OS,A1 | | | |
| | PUBLIC FACILITIES[12] | PF | | | |

## ZONING

A-1: Agricultural
C2-1: Commercial
M-1: Limited Industrial
MR-1: Restricted Industrial
M-2: Light Industrial
MR2-1: Restricted Light Industrial
OS-1: Open Space
PF-1: Public Facilities
RD-1: Restricted Density Multiple Dwelling

Source:
City of Los Angeles, General Plan Land Use Map (as of January 09, 2005)
Central City North Community Plan & Northeast Los Angeles Community Plan

| | | |
|---|---|---|
| ENGINEERING | PROJECT STUDY AREA AND LAND USE | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-1 |

#### 2.2.1.3 Northeast Los Angeles Community Plan

A sliver of the proposed project area, the south side of Downey Recreation Center, lies within the Northeast Los Angeles Community Planning area. This planning area encompasses the hills and valleys lying east of the Los Angeles River and north of the Boyle Heights Community Plan area within the city. The area serves as a transition between the downtown center of Los Angeles and the neighboring cities of Glendale, Pasadena, South Pasadena, and Alhambra to the north and east, as well as the City of Monterey Park and the unincorporated community of City Terrace to the south.

At the beginning of the twentieth century, northeast Los Angeles was a major gateway to traffic moving between central Los Angeles and distant regions in the east and north. Since World War II, the area's prominence has diminished because of the tremendous exodus to growing suburbs fostered by freeway development and the commercial and industrial decentralization that characterized development in Southern California.

The Northeast Los Angeles Community Plan was amended in 1999 (City of Los Angeles, 1999). The plan was developed with similar purposes as described for the Central City North Planning Area in the previous section.

#### 2.2.1.4 Los Angeles State Historic Park (LASHP) General Plan and EIR

A component of the proposed project involves Baker Street, which lies to the south of the LASHP. The LASHP General Plan was developed to serve as a long-range management tool that provides guidelines for achieving the vision and purpose for the park. The General Plan and the EIR provide conceptual parameters for future management actions as well as:

- Establishes the LASHP's purpose, vision, and long-term goals;
- Becomes the primary document and framework for the LASHP's development, management, and public use;
- Serves as the basis for developing focused management plans and project plans; and
- Serves as a programmatic EIR.

#### 2.2.1.5 Los Angeles River Revitalization Master Plan (LARRMP)

The proposed project involves a structure which spans the Los Angeles River. In June 2002, the City formed an ad hoc committee for the Los Angeles River whose focus was the revitalization of the river and its tributaries. The ad hoc committee began efforts to create the Los Angeles River Revitalization Master Plan (LARRMP). The LARRMP focuses on enhancing existing communities by creating a safe environment with more open space, recreation, nature, riverfront living, as well as commerce, new jobs, and economic development. In April 2007, the City adopted the LARRMP and the Program EIR/Environmental Impact Statement (EIS).

The Los Angeles River is 51 miles long and flows through the city and county of Los Angeles. The LARRMP specifically focuses on a 32-mile stretch from Canoga Park through downtown Los Angeles and into the San Fernando Valley. The goal of the LARRMP is to explore and identify opportunities to transform and enhance the Los Angeles River area. The LARRMP analyzes land uses within one-half mile of each side of the river for areas of potential impacts from the proposed revitalization and/or reinvestment efforts. The plan identifies several opportunity areas, referred to as Zones of Influence, which could benefit from revitalization and reinvestment. Such efforts would consist of replacing land uses, upgrades to existing facilities, building parks, and providing access to the river and other potential revitalization measures identified in the LARRMP.

One Zone of Influence identified in the LARRMP is the LASHP. The LASHP is identified in the LARRMP as a viable point of connection to the river and associated future greenways. Inclusion of trails and other points of access to the river would be key features in the park's development.

#### 2.2.1.6 Cornfields Arroyo Seco Specific Plan (CASP)

The proposed Cornfields Arroyo Seco Specific Plan (CASP) addresses developmental objectives for an area of approximately 600 acres at the intersection of the Interstate Route 5 (I-5) and State Route 110 (SR-110) freeways, just north of Chinatown. The plan area to the west of the Los Angeles River lies within the Central City North Community Plan, and the area to the east of the river lies within the Northeast Community Plan[1].

The plan area has been the focus of recent public infrastructure projects and studies which have increased development interest in the area. As a result, developers are requesting "project-by-project" zoning changes to the area. There is concern that this piecemeal development process would result in a haphazard and fractured neighborhood that ignores the needs and concerns of the community. The plan, therefore, would develop a road map for the area that defines a mix of uses, zoning parameters, and urban design features consistent with the communities' vision.

The project is within the boundaries of the proposed CASP. As described by the City's Planning department, the CASP "proposes to transform the area from an underutilized industrial area to a vibrant mixed-use community." The City believes that the North Spring Street Viaduct will play an important role in the area's transformation, as a pedestrian and bicycle connection across the Los Angeles River and as an entryway to the LASHP and the new mix of retail, community, employment, and residential uses that are envisioned for the area. As identified by the City, the viaduct provides a direct connection to North Spring Street and thus in many respects serves as the eastern Gateway to this important new mixed-use and open space area.

[1] City of Los Angeles, Draft Cornfields-Arroyo Seco Specific Plan Fact Book. 2007.

In the CASP, North Spring Street is envisioned as a two lane roadway with a single lane in each direction with corresponding bike lane facilities and wide sidewalks; however, while the lane configuration envisioned in the CASP differs from that of the existing viaduct and as proposed by the proposed project, the proposed project and the CASP are not anticipated to be incompatible because the proposed project would not preclude the implementation of any component of the CASP, or vice versa. Approval of the proposed project would not preclude the ability of the City to consider the reconfiguration of the widened at a later date.

The DEIR for the CASP is currently being prepared and it is expected to be released in mid-2011. According to the City, it is anticipated that the CASP would then move forward to the City Planning Commission and to Council for adoption in late 2011 or early 2012.

### 2.2.2 Affected Environment

The proposed project is located northeast of the downtown Los Angeles area, in the Central City North and Northeast Los Angeles Community Planning Districts. The land-use analysis focuses on the properties within the project limits and the surrounding area which may be impacted by proposed project construction and operation.

#### 2.2.2.1 Existing and Future Land Use

The project area is located in a highly urbanized area surrounding a portion of the Los Angeles River. *Figure 2-2* presents the land use and zoning designations within the project limits and vicinity. The project area primarily consists of industrial, open space, and public facilities uses. The areas adjacent to the Los Angeles River are primarily zoned for industrial use. Metrolink (Southern California Rail Authority (SCRA)) maintains and/or owns the rights to the railroad on both the west and east banks of the river. Land use adjacent to the Los Angeles River is designated as Public Facilities and Open Space.

Land-use designations along North Spring Street that surround the project area west of the Los Angeles River include: Open Space (OS-1 and A1); Public Facilities (PF-1); Light Industrial (MR2-1, M2, and M1); and Commercial (C2-1). Land-use designations along North Spring

Street in the project area east of the Los Angeles River include Open Space (OS, A1), Public Facilities (PF), and Limited Industrial (CM, M1, MR1, P). Existing buildings in this area include the Downey Recreation Center, situated north and south of North Spring Street, on the east side of the North Spring Street Viaduct.

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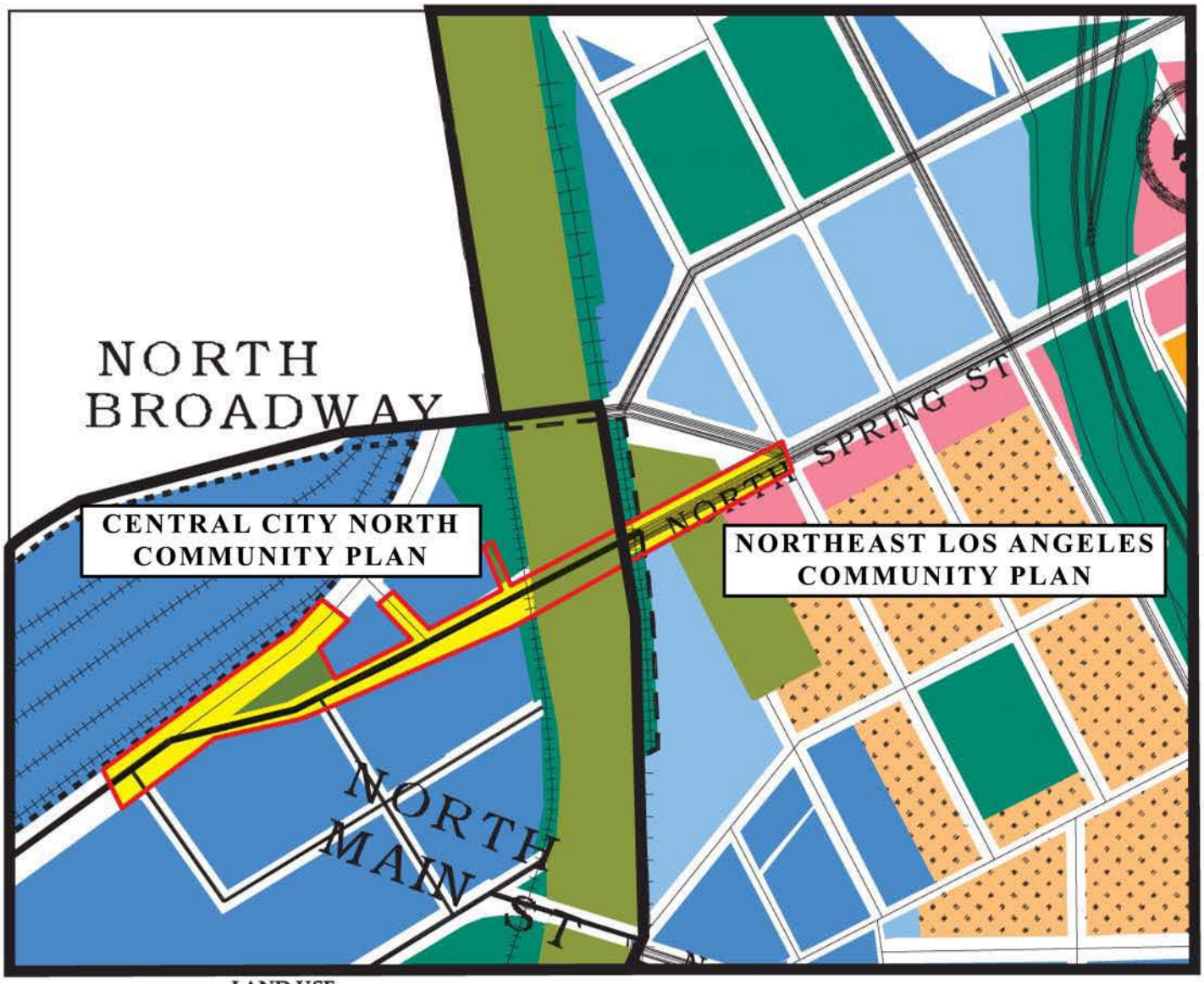



**LAND USE**

| RESIDENTIAL | | CORRESPONDING ZONES [14] |
|---|---|---|
| LOW DENSITY | | |
| | MINIMUM | OS,A1,A2,RE40 |
| | VERY LOW | RE20,RA,RE15, RE11 |
| | LOW | RE9,RS,R1,RU, RD6,RD5 |
| COMMERCIAL | | |
| | GENERAL [6] | C1,CR,C1.5, C2,C4,P [4,5] ,RAS3 |
| | NEIGHBORHOOD [6] | C1,C1.5,P [4,5] , C2,C4,RAS3 |
| | COMMUNITY [6] | CR,C2,C4,P,PB, [1] RAS3 |
| OPEN SPACE, PUBLIC FACILITIES | | |
| | OPEN SPACE | OS,A1 |
| | PUBLIC FACILITIES [12] | PF |

| MULTIPLE FAMILY | | CORRESPONDING ZONES [14] |
|---|---|---|
| | LOW MEDIUM I | R2,RD3,RD4, RZ3,RZ4,RU |
| | LOW MEDIUM II | RD1.5,RD2, RW2,RZ2.5 |
| | MEDIUM | R3 |
| INDUSTRIAL | | |
| | COMMERCIAL MANUFACTURING [6] | CM,P |
| | LIMITED [6] | CM,M1,MR1,P |
| | LIGHT [6] | M2,MR2,P |
| | HEAVY [6] | M3,P |
| | SITE | |

0 1500 3000
FEET

N

Source:
City of Los Angeles, General Plan Land Use Map (as of January 09, 2005)
Central City North Community Plan & Northeast Los Angeles Community Plan

ENGINEERING

COMMUNITY PLAN BOUNDARIES IN PROJECT VICINITY

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-2

Planned land uses in the project area are based on the City's General and Community Plans. A majority of land uses along North Spring Street are planned for industrial land uses, in addition to public and open space uses. Planned open space areas include the Downey Recreation Center and the future open-space development of the Los Angeles River. Public uses are planned to the north of North Spring Street, west of the Los Angeles River.

The project area is located within the LASHP Zone of Influence identified in the LARRMP. Plans for revitalization efforts would consist of replacing land uses, upgrades to existing facilities, building parks, and providing access to the river and other potential revitalization measures identified in the LARRMP. The LASHP, formerly known as the "Cornfield" rail yards in north-downtown Los Angeles, was identified in the LARRMP as a viable point of connection to the Los Angeles River and associated future greenways. Inclusion of trails and other points of access to the Los Angeles River would be key features to the LASHP's development.

#### 2.2.2.2 Parks and Recreational Facilities

Recreational facilities located within the project area include the Downey Recreation Center. The Downey Recreation Center is located at 1772 North Spring Street, east of the Los Angeles River on both sides of the street. The City's Department of Recreation and Parks operates this neighborhood park. The park's facilities include an auditorium, baseball diamond, children's play area, picnic tables, two classrooms, a club room, an indoor gymnasium, kitchen, multipurpose sports field, swimming pool, and a stage. In addition to recreation programs such as baseball, basketball, soccer, and softball, the center operates an after-school program, seasonal day camp, and L.A. Kids youth program.

The LASHP is located adjacent to the project area, but would not be impacted by the project. The park consists of 32 acres along North Spring Street, northwest of the North Spring Street Viaduct. At its northern end, the park is approximately 150 feet from the Los Angeles River.

### 2.2.3 Environmental Consequences

Land-use impacts described below are those impacts that are likely to conflict either with General Plan designations and zoning, or with applicable environmental plans and policies.

#### 2.2.3.1 No Build Alternative

Under the No Build Alternative, no changes to existing land uses and no land acquisitions would occur. The No Build Alternative would be consistent with land use plans and policies. No impacts to land use would occur.

#### 2.2.3.2 Build Alternative 1

Since no acquisitions or other changes to existing land uses would occur, Build Alternative 1 would not have any impacts on land use.

#### 2.2.3.3 Build Alternative 2

##### *Consistency with Applicable Plans and Policies*

Build Alternative 2 would be consistent with existing land use plans and policies, including the transportation goals and policies for these areas.

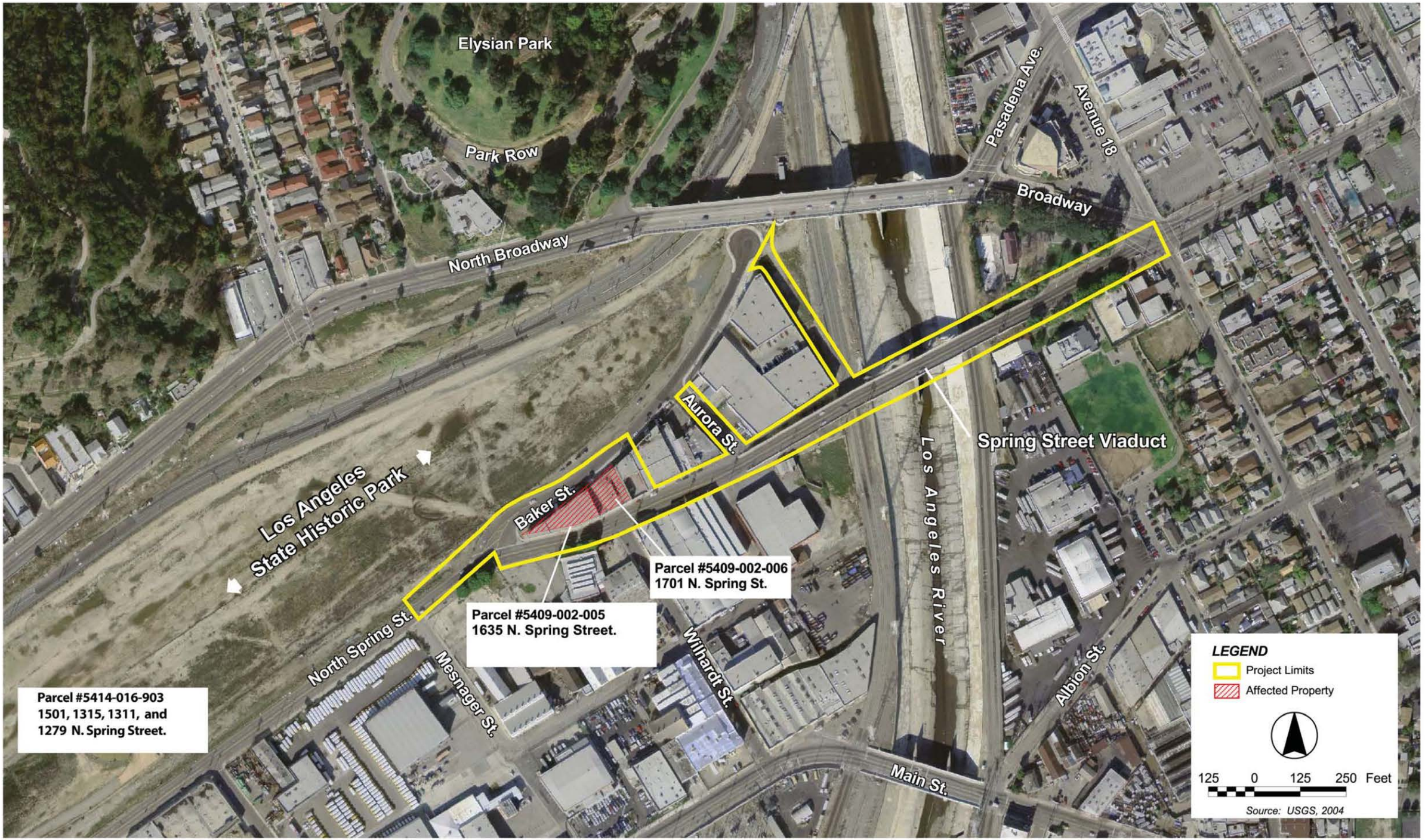
##### *Right-of-Way Acquisition*

Build Alternative 2 (see *Figures 1-11* and *1-12*) would require the acquisition of one privately owned parcel, located at 1701 North Spring Street (Assessor's Parcel Number (APN) 5409-002-006), to facilitate the extension of Wilhardt Street north beyond North Spring Street to connect with Baker Street (see *Figure 2-3*). The land use designation for this parcel is Light Manufacturing, and the corresponding zoning designation is MR2-2. This alternative would also require a small amount of right-of-way from the property located at 1731 North Spring Street (APN 5409-001-009) in order to construct the cul-de-sac; however, this would only require a small piece of right-of-way, and would not affect the existing use of the property. See Section 2.3.2 for additional discussion on relocation requirements.

##### *Parks and Recreation Facilities*

Proposed viaduct and road widening activities would result in a minimal loss of landscaping within the City's right-of-way adjacent to the Downey Recreation Center. Trees, landscaping and retaining walls may be removed. This would not affect the recreation facility or any of the services it currently provides.

The proposed project would include construction of a pedestrian walkway that would connect the northern portion of the Downey Recreation Center with its southern portion. The walkway (constructed of decomposed granite) would start at the southwest side of the northern Downey Recreational Center, and then cross under the North Spring Street Viaduct. The walkway would continue in a southerly direction to existing park facilities located within the southern portion of the Downey Recreational Center. The pedestrian walkway would have a beneficial impact, as it would improve connectivity between the northern and the southern portions of the Downey Recreation Center. Beneficial impacts on the Downey Recreation Center have been concurred by the City's Department of Recreation and Parks via letter on March 17, 2010.




LA DPW ENGINEERING

POTENTIALLY AFFECTED PROPERTIES

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-3

#### 2.2.3.4 Build Alternative 3

##### *Consistency with Applicable Plans and Policies*

Build Alternative 2 would be consistent with existing land use plans and policies, including the transportation goals and policies for these areas.

##### *Right-of-Way Acquisition*

Build Alternative 3 (see *Figure 1-13*) would require the acquisition of the two privately owned parcels, including the parcel at 1635 North Spring Street (Assessor's Parcel Number 5409-002-005) and 1701 North Spring Street (Assessor's Parcel Number 5409-002-006), to facilitate the extension of Wilhardt Street north, beyond North Spring Street, to connect to the realigned Baker Street (see *Figure 2-3*). The land use designation for these parcels is Light Manufacturing, and the corresponding zoning designation is MR2-2. This alternative would also require a small amount of right-of-way from the property located at 1731 North Spring Street (APN 5409-001-009) in order to construct the cul-de-sac; however, this would only require a small piece of right-of-way, and would not affect the existing use of the property. See Section 2.3.2 for additional discussion on relocation requirements.

##### *Parks and Recreational Facilities*

Impacts under Build Alternative 3 would be similar to those discussed under Build Alternative 2.

### 2.2.4 Construction Impacts

Construction activities would result in temporary noise, air quality, visual, and traffic impacts on viaduct users and other properties adjacent to the viaduct; however, with the implementation of standard avoidance and minimization measures, these activities would not be expected to result in adverse impacts. Temporary changes in access to existing properties would occur, but these access changes would be managed through the project Traffic Management Plan (TMP).

A temporary construction easement would be required on the south side of the viaduct during viaduct widening; however, this area would be returned to its previous condition following construction. Construction equipment would likely be staged at or near the Downey Recreation Center, but only for a small portion of the proposed project's 4.5-year construction period. Noise from this equipment is not expected to have an adverse effect on uses at the Downey Recreation Center due to the linear nature of the construction process and because the recreation center's play facilities are situated at a lower elevation than the construction area (see Section 2.13, Noise).

### 2.2.5 Cumulative Impacts

Bicycle and pedestrian improvements made as part of the proposed project would contribute to achieving the overall land use goals of the LARRMP, which envisions enhancing the existing communities adjacent to the Los Angeles River through improved riverfront amenities and economic development. These improvements would also contribute to overall goals for improving bicycle and pedestrian systems in the area. Metrolink's tracks under the viaduct may be used to accommodate high speed rail connections to Union Station; however, the high speed rail project is in the conceptual stage and issues exist both upstream and downstream of the North Spring Street Viaduct that make use of this track problematic; therefore, the potential for this project is unknown.

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

The following measures, specifications, and permit requirements would be implemented to minimize project-related impacts:

- Light fixtures would be mounted on the bridge soffit to provide added security measures along the pedestrian walkway.
- Various types of landscaping would be placed adjacent to the pedestrian walkway to enhance the physical appearance of the walkway corridor.
- Trees and landscaping removed would be replaced in accordance with City guidelines.
- Standard measures would be implemented to reduce noise and air quality impacts during construction.
- A TMP would be prepared and implemented to reduce delays and notify the public of construction scheduling and any required detours and/or closures.
- Relocation advisory and financial assistance would be made available for individuals and businesses that must relocate as a result of the public acquisition of property.

### 2.2.7 Section 4(f) Considerations

Caltrans, under its assumption of responsibility for environmental review, consultation, and any other action required in accordance with applicable federal laws for this project pursuant to Section 6005 of the SAFETEA-LU, codified at 23 U.S.C. 327(a)(2)(A), has determined that the project would result in a *de minimis* use of the Downey Recreation Center, pursuant to Section 4(f).

#### 2.2.7.1 No Build Alternative

Under the No Build Alternative, the proposed project would not be constructed; therefore, no use of the Downey Recreation Center would occur. The No Build Alternative would not adversely

affect the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f).

#### 2.2.7.2 Build Alternative 1

Build Alternative 1 includes seismic retrofit of the viaduct. It would not change the outside shape of the existing structure or dramatically reconfigure its piers, and no right of way would be required from the Downey Recreation Center. There would be no roadway or utility improvements under this alternative.

Construction would result in emissions of air quality pollutants generated by construction equipment; however, standard measures to reduce construction-generated emissions would be implemented per Caltrans Standard Specifications (see Section 2.12, Air Quality). In addition, construction activities would be required to comply with the South Coast Air Quality Management District's (SCAQMD) regulations regarding air quality. With implementation of these measures, air quality impacts would be minimized and would not adversely affect the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f).

Construction activities would result in increased noise levels in the immediate area of construction, which could affect noise-sensitive receptors located at the Downey Recreation Center; however, construction would be conducted in accordance with Caltrans standard noise requirements (see Section 2-14, Noise). With implementation of these measures, noise impacts would be minimized and not adversely affect the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f).

#### 2.2.7.3 Build Alternatives 2 and 3

The seismic retrofit and viaduct improvements would require the widening of the existing viaduct, but would not require new right of way from the Downey Recreation Center, and would not affect existing buildings or affect the current use of the property.

Construction impacts for the seismic retrofit would be similar to those discussed under Alternative 1 above. Temporary traffic detours and/or closures would likely be required for viaduct widening and roadway improvements, which could temporarily impact access to the Downey Recreation Center; however, with the implementation of standard best management practices, including a traffic management plan, impacts would not be minimized and would not adversely affect the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f).

Following construction, Alternatives 2 and 3 would increase outdoor noise levels in the northeasterly portion of the recreation center slightly; however, this increase would not adversely

affect the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f). Under Build Alternative 2 with Design Option A, this noise impact would not occur because the north side of North Spring Street would not be widened. The project would also include construction of a new walkway under the viaduct that would improve accessibility between the north and south portions of this facility.

#### 2.2.7.4 De Minimis Determination

Pursuant to 4(f) *de minimis* requirements, the public was provided an opportunity to review and comment on potential project impacts on the Downey Recreation Center between May 25 and June 8, 2011, and all comments received have been made a part of the project's administrative record (see Chapter 5.0 Comments and Coordination). As the agency with 4(f) jurisdiction over the Downey Recreation Center, the City's Department of Recreation and Parks concurred with the *de minimis* determination made for the project via letter (see Appendix B).

## 2.3 Community Impacts

This section addresses potential community character and cohesion, relocation, and environmental justice impacts to the affected populations that would result from right-of-way acquisition, construction, and implementation of project alternatives.

### 2.3.1 Community Character and Cohesion

#### 2.3.1.1 Regulatory Setting

NEPA established that the federal government use all practicable means to ensure for all Americans, safe, healthful, productive, and aesthetically and culturally pleasing surroundings (42 U.S.C. 4331[b][2]). FHWA in its implementation of NEPA (23 U.S.C. 109[h]) directs that final decisions regarding projects are to be made in the best overall public interest. This requires taking into account adverse environmental impacts, such as destruction or disruption of human-made resources, community cohesion, and the availability of public facilities and services.

Under 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, then social or economic change may be considered in determining whether the physical change is significant. Since the proposed project would result in a physical change to the environment, it is appropriate to consider changes to community character and cohesion in assessing the significance of the proposed project's effects.

#### 2.3.1.2 Affected Environment

Community cohesion is the degree to which residents have a "sense of belonging" and a level of commitment to their neighborhood, or a strong attachment to neighbors, groups, and institutions, usually because of continued association over time. The study area encompasses mostly industrial and commercial areas, with very little residential housing and no community service retail (i.e., grocery, liquor, or drug stores; dry cleaners, DVD rental, etc.) establishments. The study area is principally an industrial/commercial area with moderately high levels of non-residential daytime activity and is characterized by extremely low levels of residential use and nighttime activity.

The closest residential properties to the proposed project on the west side of the Los Angeles River are to the north of the proposed project area, north of North Broadway. The closest residential-use properties to the proposed project on the east side of the river are to the southeast of the proposed project limits, just north of Albion Street, and east of Avenue 18. The Downey Recreation Center, which lies within the project area, serves the recreational needs of several neighborhoods that lie outside of the area.

### Population Demographics

Year 2000 United States (U.S.) Census data from census tract 2060.10 covers the project area and provides population demographic characteristics. The total population of this census tract is approximately 3,276 residents, which is less than 1 percent of the population of the city. Approximately 29 percent of residents within the study area census tract are between the ages of 5 and 19, compared to approximately 22 percent within the city, and 23 percent within the Los Angeles County. The percentage of residents over age 65 is slightly lower in the study census tract than in the surrounding city and county as a whole. *Table 2-2* compares population demographics for the study census tract and the larger region.

**Table 2-2 Study Census Tract Population Demographics**

| Demographics | Study Census Tract 2060.10 | | City of Los Angeles | | County of Los Angeles | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 3,276 | 100 | 3,694,820 | 100 | 9,519,338 | 100 |
| Population 5 to 19 Years Old | 969 | 29.6 | 805,073 | 21.7 | 2,209,165 | 23.2 |
| Population 65+ Years Old | 306 | 9.4 | 357,129 | 9.7 | 926,673 | 9.7 |

Source: U.S. Census, 2000

### Housing Demographics

*Table 2-3* provides Year 2000 U.S. Census data for housing in the study census tract and the city and county. Records show 933 housing units in the study census tract. The vacancy rate of 3.5 percent for the study census tract is lower than the vacancy rates of 4.7 and 4.2 for the city and county of Los Angeles, respectively.

**Table 2-3 Study Census Tract Housing Characteristics**

| Housing Characteristics | Study Census Tract 2060.10 | | City of Los Angeles | | County of Los Angeles | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Housing Units | 933 | 100 | 1,337,706 | 100 | 3,270,909 | 100 |
| Occupied Housing Units | 900 | 96.5 | 1,275,412 | 95.3 | 3,133,774 | 95.8 |
| Vacant Housing Units | 33 | 3.5 | 62,294 | 4.7 | 137,135 | 4.2 |

Source: U.S. Census, 2000

### Housing Characteristics within the Project Limits

There is no residential housing within the project limits.

### Businesses

As discussed above in Section 2.2, Land Use, the proposed project area primarily consists of light industrial properties and some community service. The types of affected businesses along the proposed project area (including adjacent side streets) consist of industrial warehouses and distribution centers.

### Community Service Facilities and Resources

Two community service facilities are located within the proposed project area: the Downey Recreation Center and the LASHP. Two other organizations utilize space under the North Spring Street Viaduct for community activities. Major services offered by these facilities and organizations are described below:

- The Downey Recreation Center is located at 1772 North Spring Street, east of the Los Angeles River. The City's Department of Recreation and Parks owns and operates the neighborhood park. The park's facilities include an auditorium, baseball diamond, children's play area, picnic tables, two classrooms, club room, indoor gymnasium, kitchen, multipurpose sports field, swimming pool, and stage. In addition to the recreation programs (baseball, basketball, soccer, and softball), the center operates an after-school program, seasonal day camp, and L.A. Kids youth program.
- The LASHP is a 32-acre site located along North Spring Street, near the Los Angeles River. Future park uses would include landscaping, "interpretive trails," natural open space, cultural activities areas, recreation open space, and garden open space.
- Farmlab, Metabolic Studio, and Under Spring are organizations that utilize the area under the North Spring Street Viaduct. Farmlab is an organization that developed the "Not a Cornfield" project in downtown Los Angeles. Farmlab describes itself as a short-term multi-disciplinary organization that investigates land use issues related to sustainability, livability, and health, and acts as a think tank, art production studio, and cultural performance venue. Metabolic Studio hosts events such as discussions on the non-cash economy and provides a polling place venue. Under Spring is a related venture that utilizes the area under the North Spring Street Viaduct as a nursery and educational venue.

In addition to the facilities and organizations described above, there are a number of cultural and visual resources within the proposed project limits that are considered important to those residing within the neighboring areas. Refer to Section 2.6, Visual/Aesthetic, and Section 2.7, Historical Resources, for descriptions of these resources.

### 2.3.1.3 Environmental Consequences

Community impacts described below are those impacts that are likely to affect the people, institutions, neighborhoods, service delivery organizations, and overall social and economic systems surrounding a proposed undertaking.

#### *No Build Alternative and Build Alternative 1*

No changes in environmental consequences to the community within the project area would occur under the No Build Alternative or Build Alternative 1 since there would be no changes in the community, no right-of-way acquisition or relocations, and no changes in operations. Because no pedestrian circulation improvements would be made between the northern and southern portions of the Downey Recreation Center under the North Spring Street Viaduct, these alternatives would maintain the existing access between portions of the community on the east and west side of the Los Angeles River.

Under Build Alternative 1, community activities associated with Farmlab, Metabolic Studio, and Under Spring would be temporarily disrupted during construction, when access to these areas would be affected. Following construction, there would be no impact to these resources.

#### *Build Alternatives 2 and 3*

Under Build Alternatives 2 and 3, community activities associated with Farmlab, Metabolic Studio, and Under Spring would be temporarily disrupted during construction. These alternatives would not result in any permanent disconnection or division of any community or neighborhood area, and would not eliminate the community service facilities currently existing within the neighboring area.

These alternatives would have a beneficial impact related to community cohesion because an improved path would be constructed under the viaduct to connect the northern and southern portions of the Downey Recreation Center, and the widened viaduct would enhance bicycle and pedestrian linkages to adjoining communities. These improvements would also help to achieve the goals of the LARRMP, which envisions enhancing the existing communities adjacent to the Los Angeles River through improved riverfront amenities and economic development.

### 2.3.1.4 Avoidance, Minimization, and Mitigation Measures

Impacts to community character and cohesion would be minimized through implementation of the TMP. These impacts are typically mitigated to a certain extent with the TMP to be prepared through a joint effort among the City and other agencies and developers responsible for other planned projects in the immediate vicinity of the proposed project that would take place within the same timeframe. Standard specifications would also include provisions to minimize traffic disruption; noise impacts; and air quality impacts.

## 2.3.2 Relocations and Real Property Acquisitions

### 2.3.2.1 Regulatory Setting

The City's Relocation Assistance Program (RAP) is based on the Federal Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended) and Title 49 Code of Federal Regulations (CFR) Part 24 (see Appendix D). The purpose of RAP is to ensure that persons displaced as a result of a transportation project are treated fairly, consistently, and equitably so that such persons would not suffer disproportionate injuries as a result of projects designed for the benefit of the public as a whole.

All relocation services and benefits are administered without regard to race, color, national origin, or sex, in compliance with Title VI of the Civil Rights Act (42 U.S.C. 2000d, et seq.). Refer to Appendix C for a copy of the City's Title VI Policy Statement.

### 2.3.2.2 Affected Environment

In March of 2008 the City prepared a Relocation Impacts Study Memorandum for the project; an update to this memorandum was prepared in May of 2011. This section describes the findings of the memorandum. The proposed project area is situated northeast of downtown Los Angeles in an area that includes commercial, industrial and open-space (park) land uses. Build Alternative 2 would require the acquisition of one adjacent property, and Build Alternative 3 would require the acquisition of two adjacent properties.

### 2.3.2.3 Environmental Consequences

#### *No Build Alternative and Build Alternative 1*

No environmental consequences to the community within the project area would occur under the No Build Alternative and Build Alternative 1 since there would be no right-of-way acquisitions and no construction to widen the North Spring Street Viaduct and North Spring Street.

#### *Build Alternative 2*

Implementation of Build Alternative 2 would require the full acquisition of one privately owned parcel, located at 1701 North Spring Street (see *Figure 2-3* and *Table 2-4*). This parcel consists of a non-residential, light-industrial structure currently housing a warehouse/distribution operation, located along the north side of North Spring Street directly opposite its intersection with Wilhardt Street. No designated (City-zoned) residential properties would be affected.

**Table 2-4 Right-of-Way Impacts for Build Alternative 2**

| APN | Address | Type of Property | Type of Acquisition |
|---|---|---|---|
| 5409-002-006 | 1701 North Spring Street | Light industrial business building | Full |

Source: Relocation Impact Memorandum, Caltrans May 2008

This acquisition is needed to facilitate the extension of Wilhardt Street to Baker Street. Because of this acquisition, Build Alternative 2 would involve the displacement and subsequent relocation of one industrial business. Based on a recent study of the Central Los Angeles Area, of industrial properties (Costar), there is an adequate availability of replacement properties that are similar to and consistent with the use of the proposed acquired properties. This availability is for both properties that area for sale, and properties that are for lease.

This alternative would also require a small amount of right-of-way from the property located at 1731 North Spring Street (APN 5409-001-009) in order to construct the cul-de-sac; however, this would only require a small piece of right-of-way, and would not affect the existing use of the property. With the exception of the above-noted building proposed to be acquired, no other businesses or employees at the businesses within the proposed project limits would be displaced.

### *Build Alternative 3*

Implementation of Build Alternative 3 would require the full acquisition of two privately owned parcels consisting of multiple street addresses. These parcels consist of non-residential, light-industrial business buildings, located at 1701 and 1635 North Spring Street along the north side of North Spring Street and east of its intersection with Baker Street (See *Figure 2-3* and *Table 2-5*). No designated (City-zoned) residential properties would be affected.

**Table 2-5 Right-of-Way Impacts for Build Alternative 3**

| APN | Address | Type of Property | Type of Acquisition |
|---|---|---|---|
| 5409-002-005 | 1635 North Spring Street | Light industrial | Full |
| 5409-002-006 | 1701 North Spring Street | Light industrial business building | Full |

Source: Relocation Impact Memorandum, Caltrans May 2008

The acquisition of these properties is needed to facilitate the extension of Wilhardt Street north in a traditional "T" intersection beyond North Spring Street to connect with a realigned Baker Street. Because of these acquisitions, Build Alternative 3 would involve the displacement and subsequent relocation of two industrial businesses. Multiple industrial properties are available in the Central City North and Northeast Los Angeles community planning areas where the affected businesses could potentially relocate; however, the best area for relocation would be identified during the right-of-way process, following project approval.

Build Alternative 3 would also require a small amount of right-of-way from the property located at 1731 North Spring Street (APN 5409-001-009) in order to construct the cul-de-sac; however, this would only require a small piece of right-of-way, and would not affect the existing use of the property. With the exception of the above-noted buildings proposed to be acquired, no other businesses or employees at the businesses within the proposed project limits would be displaced.

Build Alternative 3 would include the same alterations to the viaduct and closure of Aurora Street as described for Build Alternative 2.

#### 2.3.2.4 Avoidance, Minimization, and Mitigation Measures

During construction, efforts would be made to maintain access to existing businesses and other community centers through the implementation of the TMP. Public notice would be given for any detours or closures required to minimize disruption of these activities. Because the proposed project would use federal funds, all displacees would be eligible to receive relocation benefits pursuant to Public Law 91-646, the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act), as amended, which governs the relocation of individuals and businesses displaced by projects paid for in whole or in part with federal funds.

Because this project requires the purchase of property, the Uniform Act establishes minimum standards for relocation assistance and compensation which include:

- Relocation advisory and financial assistance to be made available for individuals and businesses that must relocate as a result of the public acquisition of property; and
- Compliance with basic standards and requirements for appraisals and acquisition in acquiring real property.

The City would contact affected individuals and/or businesses following during the right-of-way process, which would begin following project approval, to discuss project impacts to individual properties, relocation options, and available benefits.

### 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 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. Low income is defined based on the Department of Health and Human Services poverty guidelines. In 2008, this was $21,200 for a family of four[5].

All considerations under Title VI of the Civil Rights Act of 1964 and related statutes have also been included in this project. The City's commitment to upholding the mandates of Title VI is

[5] *Federal Register,* Vol. 73, No. 15, January 23, 2008, pp. 3971–3972; and U. S. Department of Health and Human Services, January 2008 (http://aspe.hhs.gov/POVERTY/08poverty.shtml)

evidenced by its Title VI Policy Statement, signed by the Director, which can be found in Appendix C of this document.

### 2.3.3.2 Affected Environment

#### *Socioeconomic Data*

Socioeconomic data for the study area was collected by means of field surveys, analysis of census information, review of comments on the project from the public during the Notice of Preparation (NOP) public review period, the scoping meeting, meetings with community stakeholders, community groups, local agencies, and analysis of applicable community plans and planned projects. The demographic information utilized in this analysis is based on Year 2000 U.S. Census data.

*Table 2-6* compares the racial composition of the population in the study census tract and the larger region. As shown in *Table 2-6*, the study census tract population is nearly 85 percent minority, or not of the *white* race category. The percentage of minority residents in the study census tract is substantially higher than the percentage of minority residents in the city and county, which is approximately 52 percent. Approximately 46 percent of residents in the study census tract identify themselves as *Hispanic* or *Latino*, compared with 47 percent and 45 percent in the city and county, respectively. Approximately 49 percent of residents in the study census tract identify themselves as *Asian*, compared with 10 and 12 percent in the city and county. Based on this information, the study area is considered a minority-predominant community.

**Table 2-6 Racial Composition of Population in the Study Census Tract**

| Racial Categories | Study Census Tract 2060.10 | | City of Los Angeles | | County of Los Angeles | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| **Total Population** | **3,276** | **100** | **3,694,820** | **100** | **9,519,338** | **100** |
| **One Race** (of total population) | **3,145** | **96.0** | **3,503,532** | **94.8** | **9,049,557** | **95.1** |
| White | 488 | 14.9 | 1,734,036 | 46.9 | 4,637,062 | 48.7 |
| Black or African American | 39 | 1.2 | 415,195 | 11.2 | 930,957 | 9.8 |
| American Indian and Alaska Native | 29 | 0.9 | 29,412 | 0.8 | 76,988 | 0.8 |
| Asian | 1,610 | 49.1 | 369,254 | 10.0 | 1,137,500 | 11.9 |
| Native Hawaiian and Other Pacific Islander | 14 | 0.4 | 5,915 | 0.2 | 27,053 | 0.3 |
| **Hispanic or Latino (of any race)** (compared with total population) | 1,502 | 45.8 | 1,719,073 | 46.5 | 4,242,213 | 44.6 |
| Some other race | 965 | 29.5 | 949,720 | 25.7 | 2,239,997 | 23.5 |
| **Two or more races** (of total population) | 131 | 4.0 | 191,288 | 5.2 | 469,781 | 4.9 |

Source: U.S. Census, 2000

### *Socioeconomic Demographics*

According to the Year 2000 U.S. Census data, 893 households and 748 families are located within the study census tract. The average household size in the study census tract is 1.8 persons, slightly lower than the average household size of 2.83 and 2.98 persons within the city and county of Los Angeles, respectively. The average family size is 3.9 persons, which is slightly higher than the average family size of 3.6 persons for the city and county.

As shown in *Table 2-7*, the median household income in the study census tract was $19,629, a figure substantially lower than the median family income in the city and county for the same year ($36,687 and $42,189, respectively). Twenty-nine percent of the 1999 family income of the population within the study census tract was reported to be lower than the poverty level, compared to 18 percent of people in the city, and 14 percent in the county (Note: The poverty threshold in 1999 established by the U.S. Department of Health and Human Services for an average family of 4 was $16,700 per year). Approximately 18 percent of the civilian labor force residing in the study census tract was reported as unemployed in the 2000 U.S. Census data, which is substantially higher than that of the city and county, which are 9 percent and 8 percent, respectively.

**Table 2-7 Socioeconomic Characteristics in Study Census Tract**

| Socioeconomics Characteristic | Study Census Tract 2060.10 | | City of Los Angeles | | County of Los Angeles | |
|---|---|---|---|---|---|---|
| | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 3,276 | 100 | 3,694,820 | -- | 9,519,338 | -- |
| Population 16 years and older in civilian labor force | 1,199 | 51.8 | 1,688,652 | 45.7 | 4,312,264 | 45.3 |
| *Employed population 16 years and older in civilian labor force* | *976* | *42.2* | *1,532,074* | *90.8* | *3,953,415* | *91.7* |
| *Unemployed population 16 years and older in civilian labor force* | *223* | *18.6* | *156,578* | *9.2* | *345,347* | *8.2* |
| Individual Earnings in 1999 Below Poverty Level | 1,222 | 37.3 | 801,050 | 22.1 | 1,674,599 | 17.9 |
| Total Families | 748 | 100 | 807,039 | -- | 2,136,977 | -- |
| Average Family Size | 3.94 | -- | 3.56 | -- | 3.61 | -- |
| Median Family Income | $20,821 | -- | $39,942 | -- | $46,452 | -- |
| Families Below Poverty Level | 223 | 29.8 | 147,516 | 18.3 | 311,226 | 14.4 |
| Total Households | 893 | 100 | 1,275,412 | -- | 9,344,086 | -- |
| Average Household Size | 1.84 | -- | 2.83 | -- | 2.98 | -- |
| Median Household Income | $19,629 | -- | $36,687 | -- | $42,189 | -- |

Source: U.S. Census, 2000

### *Summary of Study Census Tract Demographics*

EO 12898 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.

2000 U.S. Census data indicates that the study census tract is comprised of predominantly low income and minority populations. Over 85 percent of the population in the study census tract is minority, with 46 percent of the population being *Hispanic* and 49 percent being *Asian.* Although the high concentration of minorities is not unusual in the Los Angeles area, the percentage of the total minority population in the study census tract is substantially higher than in the city or county as a whole. As in many low-income communities, the percentage of unemployed people living below the poverty level in the study census tract is also considerably higher than in the surrounding city or county.

#### 2.3.3.3 Environmental Consequences

Environmental justice impacts are defined as those unavoidable adverse effects that would be predominantly borne by a minority population and/or low-income population, or are greater in magnitude than the adverse effects that would be suffered by non-minority and/or non-low-income population.

The project area is comprised of predominantly minority and low-income populations; however, the viaduct is also utilized by non-minority and low-income individuals traveling through the area. Impacts that would result from construction of the build alternatives would be short-term and would typical of roadway improvement construction in an urban area, including noise, air quality, visual, and traffic impacts..

Construction activities would result in impacts on both minority/low-income individuals and other users of the viaduct and surrounding properties, the LASHP, the Downey Recreation Center, Farmlab, Metabolic Studio, and Under Spring; however, these impacts would be temporary and standard measures would be implemented to minimize these impacts. As a result, no adverse impacts are anticipated.

Following construction, the proposed project would be expected to improve access and safety for motorists, bicyclists, and pedestrians in the area, including the minority and low-income individuals using the viaduct and surrounding roadways. These improvements would also help to achieve the goals of the LARRMP, which envisions enhancing the existing communities adjacent to the Los Angeles River through improved riverfront amenities and economic development. For these reasons, the proposed project would not be expected to cause

disproportionately high and adverse effects on any minority or low-income populations as per EO 12898 regarding environmental justice.

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

Impacts to the existing community would be minimized through implementation of the TMP. These impacts are typically mitigated to a certain extent with the TMP to be prepared through a joint effort among the City and other agencies and developers responsible for other planned projects in the immediate vicinity of the proposed project that would take place within the same timeframe. Standard specifications would also include provisions to minimize traffic disruption; noise impacts; and air quality impacts.

### 2.3.4 Construction Impacts

#### 2.3.4.1 No Build Alternative

Under the No Build Alternative, there would be no construction activities on the viaduct or along North Spring Street and no construction impacts that would affect the community.

#### 2.3.4.2 Build Alternative 1, 2, and 3

Construction of Build Alternatives 1, 2, and 3 would result in localized disruption to the surrounding communities and commuters during the construction period, including:

- Disruption to traffic and roadway access due to construction activities and scheduled lane closures;
- Changes in traffic circulation and loss of parking along the North Spring Street frontage road and Aurora Street;
- Changes in pedestrian paths, bus-stop locations, and bus-operating routes;
- Obstruction of access to industrial buildings due to construction activities, which may result in a temporary loss of revenue for affected businesses;
- Increased noise and vibration due to construction equipment operation;
- Increased air-pollutant emissions from dust and equipment exhaust; and
- Increased safety impacts to pedestrians within the project construction zone.

These effects are typical for public works projects; particularly street-improvement projects undertaken in dense urban settings such as the study area. Projects undertaken by the City are typically designed and constructed under provisions of the most current edition of standard specifications for public works construction.

### 2.3.5 Cumulative Impacts

The proposed project would not cumulatively add or remove any cultural centers or change the character of the Central City North Community. It would encourage alternative modes of

transportation, such as bicycling and walking, and provide safer traffic circulation with its roadway improvements. The Northeast Community planning area is situated at the eastern boundary of Los Angeles. The proposed project would maintain North Spring Street as a major link between downtown Los Angeles and the East Los Angeles area.

The proposed project, together with the LASHP would create an enticing entry point into downtown and/or one of the Los Angeles' oldest neighborhoods. The visual appeal and recreational opportunity of the viaduct and LASHP would also assist in revitalizing the area and building stronger community cohesion. These improvements would also help to achieve the goals of the LARRMP, which envisions enhancing the existing communities adjacent to the Los Angeles River through improved riverfront amenities and economic development. Overall, project contributions to cumulative socioeconomic impacts would be beneficial and are considered to be less than cumulatively considerable.

During construction, the residents, businesses, and general public traveling in the vicinity of the construction zones could be impacted by construction activities on several projects that might occur simultaneously. Because no major projects are known that would affect the same areas as the proposed project, and because of the temporary nature of other minor construction-related projects that may occur, project contributions are considered less than cumulatively considerable.

## 2.4 Utilities and Emergency Services

This section addresses the potential impacts to public utilities and emergency services resulting from construction and operation of the proposed project alternatives. Public utilities include electricity, natural gas, water and wastewater facilities, storm drains, telecommunications, oil pipelines, and solid waste disposal. Emergency services include law enforcement, fire protection, and ambulance services. For each of the utilities and service systems, the existing infrastructure, levels of service, and capacity in the affected environment are described, followed by a discussion of the environmental consequences of the various alternatives regarding these systems.

### 2.4.1 Affected Environment

The study area for utilities and emergency services-impact assessment includes the project limits (North Spring Street between Baker Street to the southwest and Avenue 18 to the northeast) and additional properties adjacent to North Spring Street.

#### 2.4.1.1 Utilities

Two classes of public utilities exist in the city: publically owned and franchise utilities (see *Table 2-8* and *Figure 2-4*).

**Table 2-8 Utility Providers in Project Area**

| Utility Type | Utility Provider | Ownership |
|---|---|---|
| Electricity – Transmission and Distribution | LADWP | Public |
| Natural Gas | Southern California Gas Company | Franchise |
| Water | LADWP | Public |
| Storm Drain | City of LA, Department of Public Works | Public |
| Wastewater | City of LA, Bureau of Sanitation | Public |
| Telephone | AT&T | Franchise |
| Cable TV | Time Warner | Franchise |
| Fiber Optics | Sprint | Franchise |

***Electricity***

The Los Angeles Department of Water and Power (LADWP) is a municipally owned utility that currently supplies electricity to the project area. The LADWP supplies power to all project area street lights and traffic signals, as well as the project area residential and commercial buildings. In addition, LADWP owns and operates high-voltage overhead transmission and distribution lines in the project area. Two sets of 300 kilovolt (kV) transmission towers and lines run alongside either bank of the Los Angeles River. An array of distribution lines runs above ground

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**UTILITIES IN PROJECT AREA**

**NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT**

FIGURE 2-4

on poles along the south side of North Spring Street. Service lines to existing buildings are fed from these cables. Below-ground conduits run along both sides of North Spring Street and feed the street lighting and traffic signal systems.

### Natural Gas

The Southern California Gas Company supplies natural gas. There are several gas distribution pipelines within the project area, most of which are owned and operated by Southern California Gas Company. A 3-inch diameter gas line runs along the southern half of North Spring Street east of the North Spring Street Viaduct. The gas line crosses North Spring Street at the beginning of the viaduct, and continues along the eastern side of the Los Angeles River. On the western side of the viaduct, four separate gas lines exist. Two of these lines run perpendicular to the viaduct, the easternmost having a 3-inch diameter and the other having a 2-inch diameter. The remaining two lines run parallel to North Spring Street. The north line has a diameter of 8 inches, while the south line has a diameter of 2 inches.

### Water

LADWP provides the project area's domestic water supply. There are several water lines running through the project area, including a 10-inch diameter water main that runs along North Spring Street, east of the viaduct, and then turns onto and continues along east Aurora Street. The western side of the project area contains five water lines, with all five running perpendicular to the viaduct. All five of the water lines are 6 inches in diameter.

### Storm Drains

The City owns and operates the street and storm-drain system in the project area in conjunction with the County of Los Angeles (County) and the U.S. Army Corps of Engineers (ACOE) flood-control facilities along the Los Angeles River. East of the North Spring Street Viaduct, a 24-inch reinforced concrete pipe (RCP) is aligned along the southeast retaining wall, while a 30-inch RCP is aligned along the northeast retaining wall and through the Downey Recreation Center. Both lines convey storm flows to the river.

To the west of the Los Angeles River, a 24-inch RCP runs through the south side of North Spring Street from Baker Street to the Los Angeles River. Multiple catch basins are located along North Spring Street and adjacent streets within the project limits. The existing North Spring Street Viaduct does not have a stormwater capture and drainage system. Runoff from the viaduct flows to the curbs and down the viaduct to the nearby catch basins before discharging to the river.

#### *Wastewater*

The City's Bureau of Sanitation provides wastewater and sewer services for the project area. There are several existing sewer pipes under the viaduct and within the project limits. An existing 12-inch diameter sewer line runs along North Spring Street on the eastern side of the viaduct. This line outfalls to the North Outfall Sewer line, a 54-inch pipeline east of the viaduct that runs in a northwest/southeast direction at the intersection of North Spring Street and Avenue 18. The western side of the proposed project area contains an 8-inch diameter sewer line that runs southerly along Aurora Street, then westerly in North Spring Street, and one 8-inch and one 12-inch sewer line on either side of the viaduct.

#### *Telephone, Cable, and Fiber Optics*

Multiple telephone, cable, and fiber-optic lines are located in the project area (see *Figure 2-4*). These facilities run above ground, below ground, and through the viaduct structure. Telephone and fiber-optic lines run beneath the sidewalk on the north side of the viaduct structure. Lines for cable and local telephone service run above ground. The franchise utility companies that own and operate telephone, cable, and/or fiber-optic lines in the study area include: AT&T, Century Cable, Time Warner, MCI, SBC, Qwest, Sprint (fiber optic), and Adelphia Cable.

#### *Solid Waste*

The City's Bureau of Sanitation provides curbside pickup for the limited residential structures in the study area and the Downey Recreation Center. Solid waste collection services are provided to commercial structures by private entities under contract with building owners.

Regional planning for solid-waste facilities in the area is under the jurisdiction of the County, which is the local enforcement agency under integrated waste management laws. The Los Angeles County Sanitation Districts oversee the operation of landfills that would accept solid waste generated during construction of the proposed project. The County and City both encourage source reduction and recycling objectives that meet or exceed the requirements of State Assembly Bill (AB) 939, which mandates a 50 percent reduction in waste volumes from 1990 levels by the year 2010. The Solid Waste Resources Citywide Recycling Division of LADWP provides guidance for the recycling of construction and demolition debris. The two closest landfills to the project site are: Scholl Canyon Sanitary Landfill, located at 3001 Scholl Canyon Road in Glendale; and Azusa Land Reclamation Landfill, located at 1211 West Gladstone Street in Azusa.

### 2.4.1.2 Emergency Services

The Los Angeles Police Department (LAPD) is organized into four bureaus that are subdivided into patrol divisions. Each division is served by a station that generally is named for the patrol

division. The proposed project lies within the administrative jurisdiction of the Central Bureau and within the patrol responsibility of the Hollenbeck Community Police Station, which is located at 1936 East 1st Street, approximately 2.5 miles from the project area. *Table 2-9* lists the locations of emergency services in the project area. The City of Los Angeles Fire Department (LAFD) provides fire protection and other emergency service to the project area. The two fire stations located nearest to the project limits are LAFD Fire Station #1, which is located approximately .5 miles from the project area, and LAFD Fire Station #4, which is located approximately 1.25 miles from the project area.

**Table 2-9 Emergency Providers in Project Area**

| Emergency Provider | Location | Distance from Project Limits (Miles) |
|---|---|---|
| Central Community Police Station | 251 East 6th Street<br>Los Angeles, CA 90014 | 2.5 |
| Hollenbeck Community Police Station | 2111 East 1st Street<br>Los Angeles, CA 90033 | 2.5 |
| LAFD Fire Station #1 | 2230 Pasadena Avenue<br>Los Angeles, CA 90031 | .5 |
| LAFD Fire Station #4 | 800 N. Main Street<br>Los Angeles, CA 90012 | 1.25 |

## 2.4.2 Environmental Consequences

Utility and emergency services impacts described below are those impacts that are likely to require major improvements in either infrastructure or service capabilities.

### 2.4.2.1 No Build Alternative

Since no changes would occur to utility infrastructure or service demands, no impacts to utilities and emergency services would occur within the project area under the No Build Alternative.

### 2.4.2.2 Build Alternative 1

Since this alternative would only require minor amounts of water, power, and other services, and would not require any utilities to be relocated, no observable impacts to utilities and emergency services would occur within the project area under Build Alternative 1.

### 2.4.2.3 Build Alternatives 2 and 3

#### *Utility Relocation*

Construction of Build Alternatives 2 and 3 would require relocation of some utilities within the project area, as several would conflict with the improvements of these alternatives and require either relocation or protection during construction. Preliminary engineering and utility investigations indicate the presence of the following facilities within the project area:

- City-owned storm drains, sewer lines, and water mains;
- Telephone and cable-related facilities;
- Fiber-optic lines;
- Natural gas lines; and
- Electric transmission and distribution lines.

*Table 2-10* summarizes the utilities that need to be relocated or protected for the build alternatives.

## Table 2-10 Utility Relocation Requirements

| Utility | Location | Build Alternative 1 | Build Alternatives 2 and 3 |
|---|---|---|---|
| **Electricity** | | | |
| Above ground electric distribution line | South side of viaduct structure | Protect in place | Relocate |
| Below ground electric lines for street lighting | Attached to north and south facades of viaduct structure | Protect in place | Relocate to widened portion of viaduct structure |
| **Natural Gas** | | | |
| 2-inch and 3-inch gas, west side of Los Angles River crossing | Crossing North Spring Street | Protect in place | Relocate |
| 2-inch and 8-inch gas, west side of Los Angeles River crossing | Parallel to North Spring Street | Protect in place | Relocate |
| 3-inch gas, east side of Los Angeles River crossing | Along the east bank of the Los Angeles River | Protect in place | Relocate |
| **Water** | | | |
| 10-inch water, west side of Los Angeles River crossing | Aurora Street to North Spring Street | Protect in place | Relocate |
| 5 to 6-inch water lines, east side of Los Angeles River crossing | Between north and south portions of Downey Recreation Center | Protect in place | Protect in place |
| **Storm Drain** | | | |
| 24-inch storm drain, west side of Los Angeles River crossing | Approximately 5 feet north of the south curb of North Spring Street | Protect in place | Relocate to avoid footing for southwest retaining wall. |
| 36-inch storm drain, east side of Los Angeles River crossing | Within Downey Recreation Center | Protect in place | Relocate at outfall point |
| 24-inch storm drain, east side of Los Angeles River crossing | Approximately 5 feet south of the south curb of North Spring Street | Protect in place | Relocate through Downey Recreation Center south |
| **Wastewater** | | | |
| 8-inch sewer, west side of Los Angeles River crossing | Through centerline of North Spring Street and Aurora Avenue | Protect in place | Protect in place |

| Utility | Location | Build Alternative 1 | Build Alternatives 2 and 3 |
|---|---|---|---|
| 12-inch sewer, west side of Los Angeles River crossing | Between viaduct structure and adjacent buildings | Protect in place | Remove and dispose inactive sections |
| 8-inch sewer, east side of Los Angeles River crossing | North Spring Street to Avenue 18 | Protect in place | Protect in place |
| **Telephone** | | | |
| Telephone and fiber optic duct bank | North Spring Street west of viaduct crossing | Protect in place | Protect in place |
| 2-inch telephone conduit within North Spring Street Viaduct | Beneath sidewalk on north side of viaduct structure | Protect in place | Relocate to widened portion of viaduct structure |

All utility providers who maintain facilities within the affected area would be contacted to delineate the facility locations and to plan appropriate relocations to accommodate construction of Build Alternatives 2 and 3. Close coordination with utility owners would continue throughout the roadway design process and maintained through its construction.

### *Expansion of Existing Utility System*

Operation of Build Alternatives 2 and 3 is not expected to increase the demand for any utilities currently servicing the project area. Build Alternatives 2 and 3 would result in a slight increase in the amount of impervious surface area as a result of the widening of the viaduct. The widened viaduct would be constructed of impervious materials and extended over various surfaces, most of which are presently impervious. Build Alternative 3 would result in a change in the drainage pattern around Baker Street and the Raphael Junction Block building.

The existing drainage system for the project area for all build alternatives would be maintained with some minor modifications to storm-drain inlets and catch basins, and would be expected to adequately convey additional runoff from the widened viaduct and the Wilhardt Street and Baker Street reconfigurations.

The section of the Los Angeles River over which the project would cross is currently concrete-lined and would remain concrete-lined after project completion. Therefore, this section of the river is not utilized for groundwater recharge. The proposed project would not change the pervious surface area of the riverbed; thus, there would be no change in groundwater recharge, groundwater use, or groundwater quality resulting from the project.

### *Emergency Services*

None of the build alternatives evaluated would increase the need for emergency services or adversely affect implementation of performance objectives for police and fire protection. Law enforcement and fire protection emergency response services would marginally benefit from improved operational paths through the project area provided by widened curb lanes and the

provision of a median lane that would result from all build alternatives except Build Alternative 1.

Further improved emergency access would result from the extension of Wilhardt Street from North Spring Street to Baker Street, which is a component of all build alternatives except Build Alternative 1. The extension would create a turning angle that is considerably less sharp, and would allow emergency vehicles to maintain higher speeds.

Build Alternatives 2 and 3 would result in the closure of Aurora Street at the existing intersection with North Spring Street. This intersection would be converted into a cul-de-sac. Emergency access to all buildings facing Aurora Street would be changed from Aurora Street to Baker Street. This change would result in minor changes to response times, but would not be expected to adversely affect emergency response to these properties.

### 2.4.3 Construction Impacts

#### 2.4.3.1 No Build Alternative

Under the No Build Alternative, there would be no construction activities on the viaduct or along North Spring Street; therefore, no construction impacts relating to utilities or emergency services would occur.

#### 2.4.3.2 Build Alternatives 1, 2 and 3

##### *Utilities*

Construction of the build alternatives could result in construction impacts to utilities, such as minor increases in utility demand for electricity. This increase in electrical usage would be temporary, and the contractor would be able to connect to the City's existing power grid or would generate power on-site.

Construction activities associated with the build alternatives would generate some amount of solid waste. The majority of this waste would be a product of demolition. In compliance with AB 939, a demolition waste recycling program would be developed to reduce the amount of waste to be disposed of in local landfills. Solid waste that remains after recycling would be disposed of at appropriate landfills within the region. Sufficient landfill capacity exists to accommodate construction of build alternatives.

Any hazardous waste produced by construction activities would be properly handled and disposed of, as discussed in Section 2.11, Hazardous Waste/Materials.

##### *Emergency Services*

Adverse impacts to emergency services, such as a delay in emergency response times or alteration of evacuation plans could potentially occur during project construction.

### 2.4.4 Cumulative Impacts

The proposed project would not increase the use of public utilities, and therefore the proposed project in conjunction with other projects or conditions would not result in a cumulatively considerable impact on public utilities. No other utility relocation or installation projects are known to be planned in the project area, so no cumulative effects are expected regarding potential utility construction conflicts.

No other projects are known that would affect emergency services in the area. Seismic improvements to other bridges in the city are not expected to overlap with the proposed project. As with the proposed project, other construction projects that may occur in the future would require implementation of a TMP. The proposed project's TMP would be coordinated with any other project to ensure that simultaneous lane closures in the project area would be avoided and acceptable response times and performance objectives for police and fire protection services are maintained during the construction period. With the implementation of these measures, the proposed project in conjunction with other projects or conditions would not result in a cumulatively considerable impact on emergency services.

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

Early coordination would be conducted with utility companies to minimize utility disruptions. To maintain acceptable response times and performance objectives for police or fire protection services, a TMP would be developed for implementation during the construction period. The TMP would address traffic management procedures (e.g., roadway closures, detour routes, advance warning roadway signs, and manual traffic operations) during construction. All affected emergency routes would be identified in the TMP. LADOT would review and approve the TMP before initiation of construction activities. The approved TMP would be available to the LAPD and LAFD, along with the viaduct construction schedule.

All residents, businesses, and organizations within the affected area would also be notified in advance of the construction schedule, roadway closures, and detour routes as a safety precaution. The approved TMP would be strictly implemented during each phase of the proposed project to avoid adverse impacts to emergency services within the area. In addition, a public outreach program would be implemented to notify adjacent property owners and other stakeholders of construction schedules, and to minimize disruptions during construction.

## 2.5 Traffic and Transportation/Pedestrian and Bicycle Facilities

This section addresses the potential impacts to vehicular traffic and circulation associated with implementation of the proposed project.

### 2.5.1 Regulatory Setting

The Highway Bridge Rehabilitation and Replacement (HBRR) program was first authorized by Congress as part of SAFETEA-LU by Public Law in 2005. Congress is expected to begin working on a replacement bill for the next six-year period during its 2009 session. The purpose of both programs is to provide assistance for local agencies to repair and upgrade their bridges to meet current design standards that are consistent with their intended use and function.

Caltrans, as assigned by FHWA, directs that full consideration be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 CFR 652). It further directs that the special needs of the elderly and the disabled 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.

Caltrans is committed to carrying out the ADA by building transportation facilities that provide equal access for all persons. The same degree of convenience, accessibility, and safety available to the general public would be provided to persons with disabilities.

In 2000, Caltrans utilized the FHWA criteria to inspect local bridges and found the viaduct to have major deficiencies. These deficiencies include: inadequate lane width; lack of shoulders; loose cable restrainers; inadequate railroad clearance; and deterioration of pavement and sidewalks on Aurora Street. These conditions compromise the safety of motorists, pedestrians, and bicyclists through this roadway segment.

### 2.5.2 Affected Environment

The traffic and circulation impact analysis is based on the results of a Traffic Analysis Summary (URS Corporation, 2010) prepared for the proposed project. This study analyzed existing conditions and forecasted future traffic volumes to assess long-term impacts of the proposed project.

#### 2.5.2.1 Existing Roadway System

Classifications and descriptions of the existing roadways within the project area are summarized below.

### East-West Streets

North Spring Street – The existing North Spring Street Viaduct roadway is 50 feet wide with two eastbound and two westbound vehicular lanes. The viaduct roadway is striped for two undivided 10-foot interior lanes (one in each direction), and two 12.5-foot outer lanes. North Spring Street is striped for four-lane (two in each direction) vehicular use; west of the viaduct and east of the viaduct, the roadway is striped for two through lanes and a left-turn collector lane and pocket, and is designated as a Major Highway - Class II.

The Major Highway – Class II classification standard includes 104 feet of right of way, 12-foot sidewalk/parkway, 13-foot curb lane, four full-time through lanes, two part time parking lanes, and one median/left turn lane[6]. The viaduct does not meet the City's current design standard for a Major Highway - Class II facility because of its width constraints, which do not provide adequate facilities for motorists, bicyclists, and pedestrians. The viaduct was built in 1927, widened in 1939 by removing the south-side sidewalk, seismically retrofitted in 1992, and extensively repaired in 1993.

North Broadway – North Broadway starts at Mission Road in Lincoln Heights and heads west. It passes through the old rail yards, through Chinatown, past Cesar Chavez Avenue, and into the historic core of Los Angeles. It is a four-lane road traversing through downtown Los Angeles and providing access to the Civic Center, U.S. Highway 101 (US-101), I-5, and Interstate 10 (I-10).

Naud Street – Naud Street is a two-lane road between Mesnager Street and the railroad tracks adjacent to the Los Angeles River. It provides the surrounding industrial buildings access to Mesnager Street and Wilhardt Street, both of which connect to North Spring Street and North Main Street.

Baker Street – Baker Street is a two-lane road which parallels North Spring Street adjacent to the LASHP south of North Broadway. It provides access to surrounding industrial buildings and the Metro Rail repair facility, which is adjacent to the LASHP.

### North-South Streets

Aurora Street – Aurora Street, north of North Spring Street, is a two-lane local street that connects North Spring Street to Baker Street. The street extends approximately 200 feet and lies at the west end of the viaduct at its terminus. Left turns from Aurora Street onto the viaduct are prohibited because of visibility challenges presented by the horizontal alignment and vertical profile of the viaduct.

[6] City of Los Angeles General Plan Chapter VI – Street Designations and Standards

Mesnager Street – Mesnager Street is a two-lane local street that links North Spring Street to Naud Street, and runs for approximately 425 feet.

Wilhardt Street – Wilhardt Street is a two-lane local street that extends from North Spring Street to North Main Street, with an intermediate connection at Naud Street. It is located on the west end of the viaduct, south of North Spring Street. Wilhardt Street is approximately 350 feet from the west terminus of the viaduct.

Avenue 18 – Avenue 18 is a two-lane road where North Spring Street becomes North Broadway. It also connects North Spring Street to North Broadway to the west (toward downtown Los Angeles) and to Pasadena Avenue to the north.

#### 2.5.2.2 Traffic Study Intersections

The following seven intersections were examined to assess traffic conditions in the proposed project area[7]. These intersections are:

- Location 1: North Spring Street at Wilhardt Street;
- Location 2: Wilhardt at Naud Street;
- Location 3: Naud at Mesnager Street;
- Location 4: North Spring Street at Mesnager Street;
- Location 5: North Spring Street at Baker Street;
- Location 6: North Spring Street at Aurora Street; and
- Location 7: North Spring Street at North Broadway and Avenue 18.

Locations 1 through 6 are located on the west end of the viaduct and are un-signalized. Location 7 (North Spring Street at North Broadway and Avenue 18) is the only signalized intersection in the proposed project area. It is a five-legged intersection located on the east end of the viaduct.

Location 1 has a stop sign on Wilhardt Street where turns into and from North Spring Street can be made. However, a left turn at this intersection is not recommended because of sight obstruction from the viaduct's 7.5 percent slope. The build alternatives include a signalized intersection along with a through street to Baker Street to improve safety along this segment of North Spring Street.

Location 4 has a stop sign at Mesnager Street with right and left turns. Location 5 only allows right turns; left turns are prohibited due to the North Spring Street narrowing and the challenges associated with visibility caused by the curve along North Spring Street. Location 6 only allows right turns.

[7] Only the problem intersections are addressed in the analyses. Locations 2 and 3 do not have any traffic problems, but were examined to get an understanding of mobility for the project study area.

Traffic accident reports obtained from Caltrans for the above locations present data on accidents that also involve injuries. These reports are included in Appendix M. The build alternatives would eliminate existing safety and operational deficiencies associated with the viaduct and its adjoining approach streets and surrounding intersections. The build alternatives would also improve the proposed project area's intersections and approach streets, connections to mass transit, and create safer pedestrian and bicycle linkages.

#### 2.5.2.3 Other Traffic-Contributing Projects

During the proposed project's scoping process, LADOT specified one related traffic-contributing project to be included in the study because of its proximity to the study intersections. This project is the LASHP project. Trips generated by the LASHP are assumed already included in the model and therefore distributed to the project area along North Spring Street.

#### 2.5.2.4 Average Daily Traffic and Level of Service (LOS)

Daily (24-hour) traffic volume data – also known as average daily traffic (ADT) – were obtained from the latest Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP) model for peak and daily traffic patterns within the proposed project study area. The results of the model runs are included in Appendix M.

In 2015, using LADOT's recommended ambient growth of 1 percent per year, the peak hour volume along the viaduct is expected to be 2,249 vehicles in the a.m. peak and 4,038 vehicles in the p.m. peak. The dominant traffic flow would be westbound in the morning and eastbound in the afternoon, indicating a tendency for traffic to be directional during peak commute periods. The daily directional volume would be 1,741 westbound and 508 eastbound in the a.m. peak, and 1,616 westbound and 2,422 eastbound in the p.m. peak.

In 2035, using SCAG's latest RTP model, the peak hour volume along the North Spring Street Viaduct is expected to be 2,293 vehicles in the a.m. peak and 4,271 vehicles in the p.m. peak. The dominant traffic flow would be westbound in the morning and eastbound in the afternoon, indicating a tendency for traffic to be directional during peak commute periods. The daily directional volume would be 1,765 westbound and 528 eastbound in the a.m. peak, and 1,805 westbound and 2,467 eastbound in the p.m. peak.

The efficiency of traffic operations of a transportation facility is measured in terms of Level of Service (LOS). Critical locations of surface transportation systems are normally selected to illustrate traffic performance of an area. LOS is a measure of the average operating conditions at these locations during an hour interval. It is based on the volume-to-capacity (V/C) ratio determined by dividing the volume of the traffic handled by the roadway during the hour by the total capacity (the maximum traffic volume that the roadway is capable of handling during an hour). LOS designation ranges from LOS A (free flow, no congestion) to LOS F (forced flow,

considerable congestion). Typically, V/C ratios greater than 0.89 indicate the roadway segment is approaching capacity and represent LOS E conditions, while V/C ratios exceeding 1.0 indicate overcapacity situations represented by LOS F.

*Table 2-11* demonstrates the LOS comparison for the proposed project's present conditions (2008) to future years of baseline operation (2015 and 2035). These comparisons were calculated as follows:

**Table 2-11 Level of Service Analysis (2008-2015)**

| | AM | | PM | |
|---|---|---|---|---|
| | **Westbound** | **Eastbound** | **Westbound** | **Eastbound** |
| **Current (2008)** | LOS B | LOS A | LOS B | LOS C |
| **2015 No Project** | LOS C | LOS A | LOS B | LOS D |
| **2035 No Project** | LOS C | LOS A | LOS C | LOS D |

Source: Traffic Analysis Summary, URS Corporation, January 2010

### 2.5.2.5 Transit, Truck, Parking, Bicycling, and Pedestrian Facilities

Existing Transit Service – Metro Bus routes currently do not operate along the North Spring Street Viaduct; however, the Metro Gold Line is in the vicinity of the proposed project area, adjacent to the LASHP. Bus lines 45, 68/84, and 83 exist on nearby North Broadway, along with a DASH service line to Lincoln Heights-Chinatown Line that travels along North Broadway to Avenue 18 onto North Main Street.

Existing Truck Conditions – Field observations during the traffic survey indicated that the viaduct is not heavily used by trucks. According to LADOT, truck use on the viaduct during peak hours is 3 percent of all traffic. According to SCAG's 2008 RTP model, daily truck use on the viaduct during peak hours is approximately 4 percent of all traffic.

Existing Parking Conditions – Parking is not allowed on the viaduct; however, approximately 10 on-street unmetered public parking spaces are available along the north side of the sidewalk of North Spring Street between Aurora Street and Baker Street. On the south side of North Spring Street, there are approximately four on-street unmetered parking spaces. On-street unmetered public parking spaces also exist along the north sides of Aurora and Baker Streets.

Handicapped Parking – Based on field investigations, there are no designated handicapped on-street public parking spaces within the project limits; however, Downey Recreation Center has one designated handicapped parking space, six compact-size spaces, and seven standard-size spaces.

Existing Pedestrian Facilities – A sidewalk exists along North Spring Street, including the north side of the viaduct; however, there are no crosswalks along the proposed project area, with the exception of the five-legged intersection on the east side of the viaduct.

Existing Bicycle Facilities – There are no designated bicycle routes or lanes within the proposed project area. However, there are two designated bike paths in the area surrounding the project area – the Los Angeles River bikeway and Arroyo Seco bike path[8]. The Los Angeles River bikeway is a Class 3 (streets designated as preferred routes through high demand corridors) bike path along Riverside Drive (at Victory Boulevard) that extends from Elysian Park to Griffith Park. The Arroyo Seco bike path is an approximate 3 mile long Class 1 (a completely separated bi-directional right-of-way designated for bicycles) bike path along the Arroyo Seco River basin, paralleling the State Route 110, and ending at Arroyo Park in Pasadena.

## 2.5.3 Environmental Consequences

### 2.5.3.1 Roadway Traffic Level of Service

The objectives of the proposed project would be consistent with federal laws addressing transportation safety and multi-modal uses. In addition, they would be consistent with the California Department of Parks and Recreation's (DPR) plan for the LASHP to adopt strategies for safety and park development. The proposed project would correct some existing deficiencies and enhance opportunities for use of alternative (non-vehicular) transportation modes. These transportation options are particularly important to the area since they would increase the capacity of the study area's circulation system to deliver users to the LASHP, where recreation activities like bicycling and walking are anticipated.

#### *Year 2015 and 2035 Traffic Forecast and LOS*

An analysis of current and future traffic conditions for the North Spring Street Viaduct was performed and completed using established traffic engineering techniques, reviewed below. Existing Traffic data were taken from SCAG's 2008 RTP model. Other data was taken from field observations and evaluations.

This study was undertaken to determine the impacts of the proposed project on future local traffic operations. The analysis was performed using HCS+ software to determine the LOS of the viaduct, using four scenarios: First, the LOS for the current year 2008 was calculated using the 2008 model. The 2008 traffic data was then projected to years 2015 using the City's recommended ambient growth of 1 percent per year.

The generated traffic from the LASHP project was included in the projected traffic with the assumption that the park began operation in September 2006. These assumptions were also included in the projections for year 2015 and year 2035.

[8] Metro Bike Map. Available at: http://metro.net/riding_metro/bikes/images/la_bike_map.pdf

### *No Build Alternative and Build Alternative 1*

Under the No Build Alternative, the North Spring Street Viaduct would continue to serve as a route over the Los Angeles River, and no physical improvements would be made to the viaduct, North Spring Street, Baker Street, or Aurora Street. Under Build Alternative 1, the North Spring Street Viaduct would also continue to serve as a route over the Los Angeles River, and no physical improvements would be made to the viaduct (except seismic retrofitting), North Spring Street, Baker Street, or Aurora Street. The existing 5-foot-wide sidewalk on the north side of the viaduct would not be affected, and bicyclists would continue to share the narrow exterior lane with motorists.

Since the North Spring Street Viaduct would be a potential gateway to the LASHP, more recreational activities are expected. The current limitations in roadway space for the safety of bicyclists and sub-standard sidewalks for pedestrians present safety problems.

### *Build Alternatives 2 and 3*

It is anticipated that an overall improvement in traffic operations in the project area would result from implementation of the proposed project. The traffic study predicted the LOS for the Year 2015 and 2035. Under Years 2015 and 2035, the viaduct would be at LOS C at the a.m. peak and LOS D at the p.m. peak (see *Table 2-12*).

**Table 2-12 Level of Service Analysis (2015 and 2035)**

| | AM | | PM | |
|---|---|---|---|---|
| | **Westbound** | **Eastbound** | **Westbound** | **Eastbound** |
| **2015 No Project** | LOS C | LOS A | LOS B | LOS D |
| **2015 with Project** | LOS C | LOS A | LOS B | LOS B |
| **2035 No Project** | LOS C | LOS A | LOS C | LOS D |
| **2035 with Project** | LOS C | LOS A | LOS C | LOS B |

Source: Traffic Analysis Summary, URS Corporation, 2010

As summarized by *Table 2-12*, each of the build alternatives except Build Alternative 1 would either maintain or improve future traffic operations in the east-west transportation corridor centered on North Spring Street.

## 2.5.3.2 Parking Impacts

### *No Build Alternative*

There would be no parking impacts with the No Build Alternative.

### *Build Alternative 1*

As there would be no changes to the viaduct and the roadway, no parking impacts are anticipated under Build Alternative 1.

#### *Build Alternatives 2 and 3*

Implementation of Build Alternatives 2 and 3 would result in the permanent loss of approximately 10 on-street public parking spaces. These parking spaces would be removed to provide a widened curb lane for bicycle use. The on-street public parking spaces eliminated include those along the north side of North Spring Street, between Aurora Street and Wilhardt Street. The loss of public parking spaces would create some inconvenience to business owners and visitors in the area since they would have to park on adjacent streets and walk to their destinations; however, other parking areas are available nearby, and adverse impacts are not anticipated.

### 2.5.3.3 Public Transit Impacts

#### *No Build Alternative and Alternative 1*

There would be no impacts to public transit associated with implementation of the No Build Alternative or Build Alternative 1.

#### *Build Alternatives 2 and 3*

The North Broadway and Avenue 18 intersection that supports bus lines 45, 68/84, 83 and the Lincoln Heights-Chinatown Line DASH service could be subjected to intermittent short-term periods of congestion associated with final configuration of the 5-legged intersection for Build Alternatives 2 and 3.

### 2.5.3.4 Pedestrian Impacts

#### *No Build Alternative and Build Alternative 1*

There would be no impacts to pedestrians associated with implementation of the No Build Alternative or Build Alternative 1.

#### *Build Alternatives 2 and 3*

After construction is complete, the North Spring Street Viaduct would have improved sidewalks on both sides of the viaduct for foot traffic.

### 2.5.3.5 Bicyclist Impacts

#### *No Build Alternative and Build Alternative 1*

There would be no impacts to bicyclists with the No Build Alternative or Build Alternative 1.

#### *Build Alternatives 2 and 3*

After construction of Phase 1 is complete, the viaduct would have bicycle routes on both sides of the viaduct. It would improve safety not only for bicyclists but for pedestrians and motorists since designated bicycle routes would reduce the likelihood of bicycle accidents.

## 2.5.4 Construction Impacts

### 2.5.4.1 Traffic Impacts

During project construction, motorists traveling within the proposed project area would experience short-term disruptions to traffic. The net effect would be that minor to moderate traffic delays through active construction zones could be anticipated. Any potential traffic disruption resulting from the proposed project would be construction-related, and thus, temporary in nature; and no adverse impacts would occur after construction is completed.

### 2.5.4.2 Parking Impacts

Implementation of Build Alternatives 2 and 3 would result in the permanent loss of approximately 10 on-street public parking spaces, which would be eliminated when construction begins along the north side of North Spring Street, between Aurora Street and Wilhardt Street. The loss of public parking spaces would create some inconvenience to business owners and visitors in the area since they would have to park on adjacent streets and walk to their destinations; however, other parking areas are available nearby, and adverse impacts are not anticipated.

### 2.5.4.3 Public Transit Impacts

During construction of any build alternative, there may be temporary impacts to public transit service resulting from reconfiguration of the five-legged intersection. Impacts may include temporary detours and relocation of bus stops to allow for this construction. However, these impacts would be temporary in nature, and minimization measures would be implemented to reduce these impacts to the extent feasible; therefore, no adverse impacts are anticipated.

### 2.5.4.4 Impacts to Pedestrian Routes

During construction of any of the build alternatives, use of the viaduct would remain open by completing the widening on the south side of the viaduct first.

### 2.5.4.5 Impacts to Bicycle Routes

No impacts on bicycle routes would occur since there are no current routes or lanes within the proposed project area.

## 2.5.5 Cumulative Impacts

The cumulative setting for transportation facilities is considered to be roadways, bicycle/pedestrian facilities, and transit systems in Los Angeles. Traffic conditions within Los Angeles vary, but within the project vicinity there are some operational deficiencies that are exacerbated by the narrow viaduct width and bicycle movements. The proposed project would improve traffic circulation, and enhance bicycle and pedestrian facilities in the area. In the long

term, residents, businesses, and the general public residing near or using North Spring Street and the North Spring Street Viaduct would benefit from overall improvement in transportation facilities, therefore, project contributions to cumulative transportation impacts would be beneficial, and are considered to be less than cumulatively considerable.

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

The Contractor would be required to complete a TMP in accordance with the California Manual on Uniform Traffic Control Devices (MUTCD) and subject to the approval of the LADOT prior to commencement of construction. This plan would ensure the maintenance of at least one open traffic lane in each direction at all times, and the provision of flagmen for those infrequent situations when only one lane through the construction zone can be provided.

The following mitigation measure is recommended for all of the build alternatives to avoid construction-related impacts on pedestrian routes:

**MM TRA-1:** Prior to construction, the contractor should prepare a construction staging plan that shall ensure that a walkway on either the north or south side of the bridge be open to pedestrians at all times. Properly staging construction, for example by storing all equipment only on the south side of the viaduct or by sequencing work such that a walkway on the south side of the viaduct is available for use before the walkway on the north side is closed, would maintain a walkway open to pedestrians. The TMP would offer alternative routes to persons with disabilities.

## 2.6 Visual/Aesthetics

### 2.6.1 Regulatory Setting

NEPA 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 U.S.C. 4331[b][2]). The FHWA in its implementation of NEPA (23 U.S.C. 109[h]), directs that final decisions regarding 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.

Likewise, 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" (California Public Resources Code Section 21001[b]).

### 2.6.2 Affected Environment

A Visual Impact Assessment (VIA) was prepared (URS Corporation, 2010) to assess the visual impacts of the proposed project. The assessment concluded that potential adverse visual impacts would likely be associated with the proposed widening and rehabilitation of the North Spring Street Viaduct and the section for North Spring Street located east and west of the viaduct associated with all build alternatives except Build Alternative 1. The assessment was prepared in accordance with the guidelines outlined in the Visual Impact Assessment for Highway Projects manual developed by the FHWA as well as the Caltrans' Scenic Highway Element, and CEQA aesthetic guidelines and policies.

The proposed project is located in the Central City North Community Planning Area and extends easterly from approximately Baker Street to Avenue 18. Limited views of the proposed project area are accessible from the Silver Lake, Echo Park, Elysian Valley Community Planning Areas to the north, the Boyle Heights Community Planning Area to the southeast, and the Northeast Los Angeles Community Planning Area to the northeast. Surrounding areas consist of a channelized river with railroad tracks on either side, Elysian Park areas, the LASHP north of Baker Street, commercial/manufacturing/industrial areas, the Downey Recreation Center, residential areas adjacent to the Downey Recreation Center to the south (intersection between Albion and Avenue 18 Streets), and other various local roadways.

A visual character and visual quality inventory of the proposed project vicinity was conducted[9]. Project key views were defined and assigned visual quality ratings as defined by the FHWA[10] based upon the following three criteria:

[9] Visual Impact Assessment, North Spring Street Bridge Widening and Rehabilitation Project, URS Corporation; March 2006

1. Vividness – the visual power or memorability of landscape components as they combine into distinctive visual patterns.
2. Intactness – the visual integrity of the natural and human-made landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.
3. Unity – the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual man-made components in the landscape.

#### 2.6.2.1 Existing Landscape Units

The FHWA visual impact assessment manual defines affected environment in terms of landscape units, or outdoor rooms. Landscape units are defined as an area or volume of distinct landscape character, which form spatially enclosed units at ground level; landscape units may include more than one landscape type. Landscape types within the urban environment of the proposed project area tend to correspond to parks, vacant land, commercial land, or residential area landscape types.

For this project, the following landscape units are preset: (1) channelized river area, including railroad tracks on either side of channelized river and the urban landscapes under the bridge; (2) Elysian Park areas; (3) vacant land (LASHP) immediately north of Baker Street; (4) commercial/ manufacturing/industrial areas subdivided by the roadways; (5) Downey Recreation Center (subdivided by the roadway); (6) residential areas adjacent to the Downey Recreation Center to the south; and (7) various local roadways.

#### 2.6.2.2 Visual Character and Visual Quality at Key Viewpoints

The North Spring Street Viaduct was built in 1928 as part of a series of concrete bridges constructed to facilitate access to the eastern suburbs of the Los Angeles area. The viaduct was specially designed for its site condition relative to other bridges built during the same period. The aesthetic features of the viaduct, which characterize its history, are directly relevant to potential project-related aesthetic impacts. The visually-unique elements of the North Spring Street Viaduct include the viaduct silhouette, viaduct deck, and associated structural details.

##### *Viaduct Silhouette*

The complete silhouette of the North Spring Street Viaduct is viewed mainly from passengers on trains, the Broadway Bridge, and locations upstream and downstream from the Los Angeles River. Oblique silhouettes of the viaduct can be viewed from nearby streets and parks. The most striking aspect of either the direct or the oblique silhouette is the arch structures, which cross the

[10] California Department of Transportation. Visual and Aesthetics Review. Available at: http://www.dot.ca.gov/ser/vol1/sec3/community/ch27via/chap27via.htm#via

river channel. The arches, which add character to the viaduct, are shallow and parabolic, providing a structure of columns which support other arches. A decorative concrete handrail with wrought iron lanterns is also located along the viaduct. The most significant features of the viaduct's silhouette are:

- Its openness and transparency (one exception to this appearance of near-fragility are the piers, which define and bisect the Los Angeles River);
- The height-to-span proportions of the arch forms; and
- The relative narrowness of the structure carrying automobile traffic, tucked under cantilevered projections that carry the structures for lighter traffic.

#### *Viaduct Deck and Associated Structural Details*

The viaduct deck ascends at a relatively steep angle across the approach and the railroad spans. The viaduct deck over the river represents the portion known as the crown, from which the roadway drops down into Los Angeles. The most significant features associated with the viaduct deck include:

- Closed/open configuration of approach and span railings;
- Lack of a vanishing point, focusing attention on the viaduct itself;
- Sense of ascent and surprise;
- Brackets, expressed as massive pier brackets and lighter column brackets;
- Light fixtures and posts;
- Handrails; and
- Surface articulation.

Westbound motorists and pedestrians are afforded marginal views of the downtown Los Angeles skyline from this crown point. Structural details of the viaduct include the concrete brackets between roadway and piers, the concrete railings and cast iron light fixtures, articulated surfaces of the major piers, light brackets cantilevered to support the walkways, and the tapered profile of the columns.

### 2.6.2.3 Existing Light/Glare

In addition to daytime views, FHWA requires nighttime views and changes to lighting and glare to be assessed. To meet current design and safety requirements, supplemental lighting may be required to meet current ground-level foot-candle requirements. However, it is not anticipated that addition of such lighting would result in a substantial addition of light source or glare. It is anticipated that existing light sources would be removed and replaced with similar features. The existing viaduct light fixtures are distinctive features of the viaduct. Therefore, these features (including their lighting intensity, positioning and number) could be replaced, as feasible, with

similar fixtures. It too could be that there is local sentiment to replace the existing electroliers with something closer to the original features. The proposed project could include the use of nighttime lighting for security purposes and/or for limited night construction. These indirect impacts would be considered temporary in nature.

#### 2.6.2.4 Viewshed, Viewer Sensitivity, and Viewer Exposure

##### *Viewshed*

A viewshed is defined as "the visual limits of the views located from the proposed project." The viewshed also includes the locations of viewers likely to be affected by visual changes caused by the project. FHWA defines three distinct distance zones when assessing visual impacts: foreground views (0-0.25 mile to 0.5 mile), middleground views (0.25-0.5 mile to 3-5 miles), and background views (3-5 miles to infinite miles). Middleground and background views were screened due to intervening topography, vegetative and man-made screening. Therefore, potentially impacted views for the proposed project were chosen primarily within the foreground distance zones.

The principal travel corridors are important for aesthetic features because they define the vantage point for the largest number of viewers. The principal travel corridors for the proposed project include routes along North Spring Street, as well as routes along North Broadway looking south to the North Spring Street Viaduct. Recreational viewers north and south along North Spring Street at Downey Recreation Center have view vantage points, which could be potentially affected. A total of eight key views were identified for the proposed project.

##### *Viewer Sensitivity*

Viewer sensitivity relates directly to the viewshed in which the project resides. The viewshed includes all areas where physical changes associated with the proposed project can be seen from a sensitive viewpoint, influenced by existing topography, vegetation, and structures. The proposed project viewshed consists mainly of foreground views since most middleground and background views are blocked. This foreground viewshed extends from Main Street to the south, from Elysian Park to the north, from just past Avenue 18 to the east, to just past the intersection of North Spring Street and Mesnager Street to the west.

Viewer sensitivities vary depending upon their activity, awareness, and familiarity with the surrounding environment. The following describes the comparative sensitivity of the various types of viewers in decreasing order of sensitivity.

Recreational Viewers

Recreational viewers, particularly those with views of the proposed project, including those at park locations, playgrounds, and ball fields, would be most sensitive to change because the

nature of their viewing experience is often focused on their visual surroundings. Recreational viewers often routinely visit near-street activity areas and are therefore sensitive to changes that might occur.

Residents.

Residents, particularly those located southeast of the Downey Recreation Center between Avenue 18 and Albion Street would be most sensitive to change because of the relative permanency of their viewing experience.

Workers

Employees of retail, industrial, and professional establishments within the proposed project area would be considered sensitive viewers because they have frequent opportunities to experience the views from their workplaces and routinely visit on-street activity areas. These views can be fleeting or lengthy in duration.

Pedestrians

Pedestrians would be considered sensitive viewers, as they would be directly within the viewshed and would have lengthy exposure to views.

Regular Motorists

Regular motorists, including regular railroad and Metrolink riders, would be those who live in the community or who commute through the corridor on a regular basis and are familiar with the surrounding views. However, their sensitivity to these views would be less than that of a pedestrian, as their passage through the proposed project area is quicker and their attention is focused on road conditions and train passenger activities.

Occasional Motorists

Occasional motorists, including occasional railroad and Metrolink riders, are typically nonresident, non-commuter tourists. They typically have short duration, temporary views of the proposed project area and would be considered less sensitive than regular motorists.

### *Viewer Exposure*

In addition to viewer sensitivity, viewer exposure to the proposed project must also be assessed. Viewer exposure is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of their view, speed at which the viewer moves, and position of the viewer. Each of these is assessed for the key views identified for the proposed project. High viewer exposure heightens the importance of early consideration of design, art, and architecture and their roles in managing the visual resource effects of the proposed project.

Eight key views (*Figures 2-6* through *2-13*) have been identified as defined by viewer sensitivity. FHWA guidelines require views from and of the road to be analyzed. In addition, five typical views (*Figures 2-14* through *2-18*) representative of the area have been included. These typical views are examples of the various sensitive viewers in the proposed project vicinity. The eight key views (*Key Views #1* through *#8*) and five typical views (*Typical View #1* through *#5*) are identified in *Figure 2-5* and are presented below:

Key View #1

View from eastbound travelers on North Spring Street looking toward the viaduct. Existing visual quality and visual character is classified as moderate (see *Figure 2-6*).

Key View #2

View from westbound travelers on North Spring Street looking toward the viaduct. Trees and landscaping on both sides of North Spring Street are proposed for removal. Existing visual quality and visual character is classified as moderate (see *Figure 2-7*).

Key View #3

View from travelers on the Broadway Bridge looking south toward the viaduct. Existing visual quality and visual character is classified as high as there is a clear and full view of the North Spring Street Viaduct (see *Figure 2-8*).

Key View #4

View from pedestrian travelers on North Spring Street Viaduct looking east. This view includes existing streetlights along the North Spring Street Viaduct that are considered one of several character-defining elements. The existing visual quality and visual character is classified as high (see *Figure 2-9*).

Key View #5

View of the North Spring Street Viaduct from the north side of the Downey Recreation Center. Existing view includes the trees and shrubbery of the tiered landscaping of the Downey Recreation Center. Existing visual quality and visual character is classified as high (see *Figure 2-10*).

Key View #6

View of the North Spring Street Viaduct from the south side of the Downey Recreation Center. Similar to *Key View #5*, includes views of trees and shrubbery of the tiered landscaping of the Downey Recreation Center. Existing visual quality and visual character is classified as high (see *Figure 2-11*).

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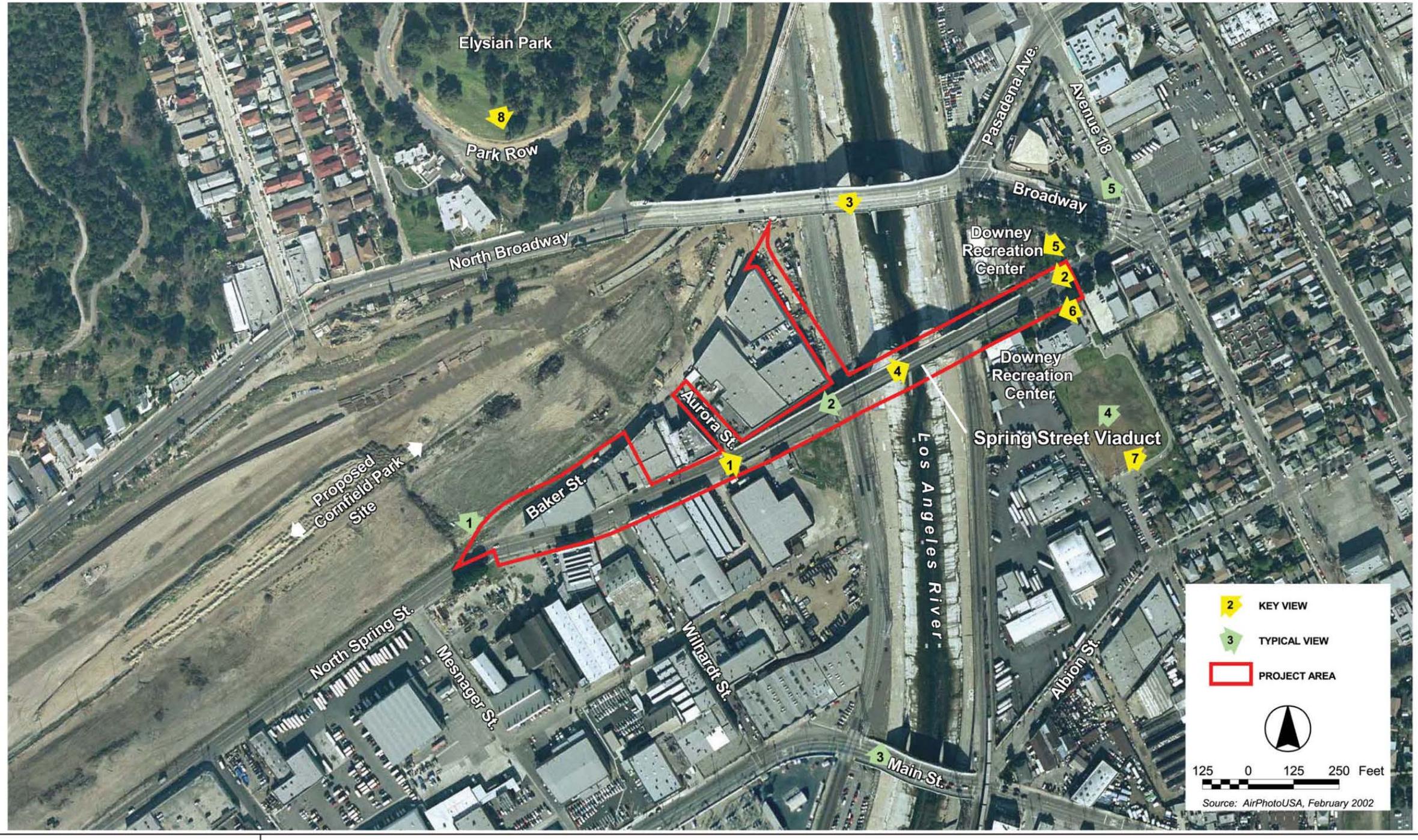


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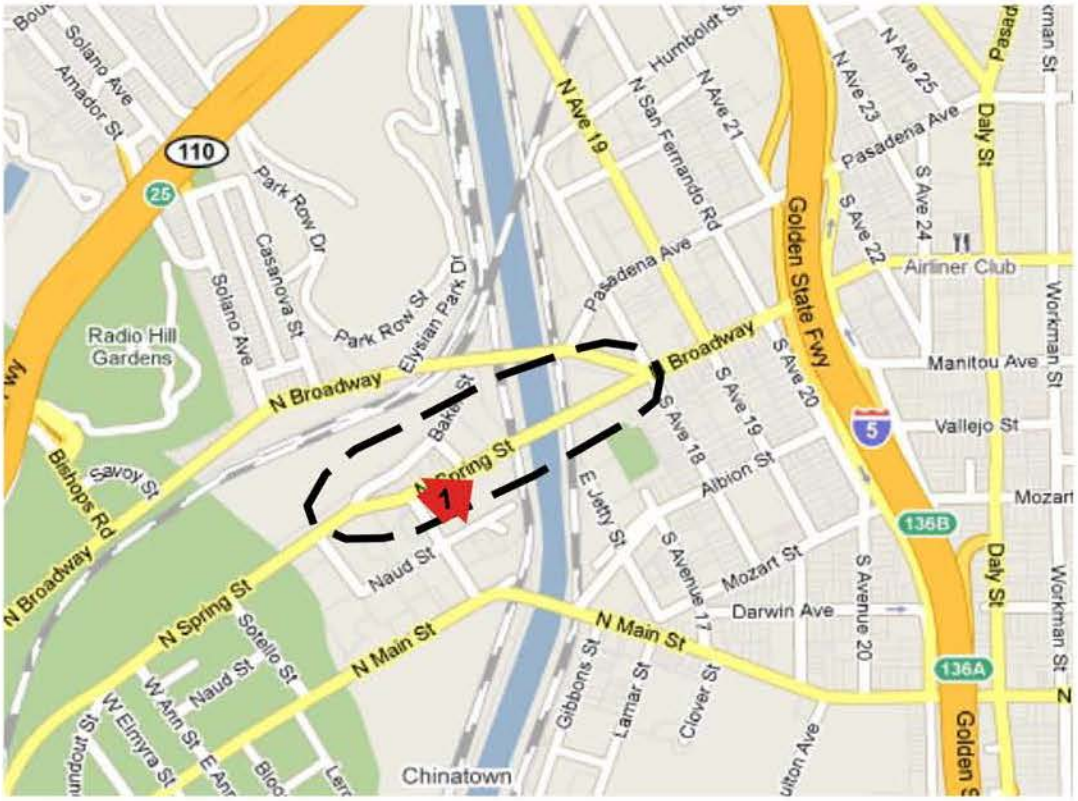
| LA DPW ENGINEERING | VIEWPOINTS MAP |
| | NORTH SPRING STREET BRIDGE WIDENING AND REHABILITATION PROJECT — FIGURE 2-5 |

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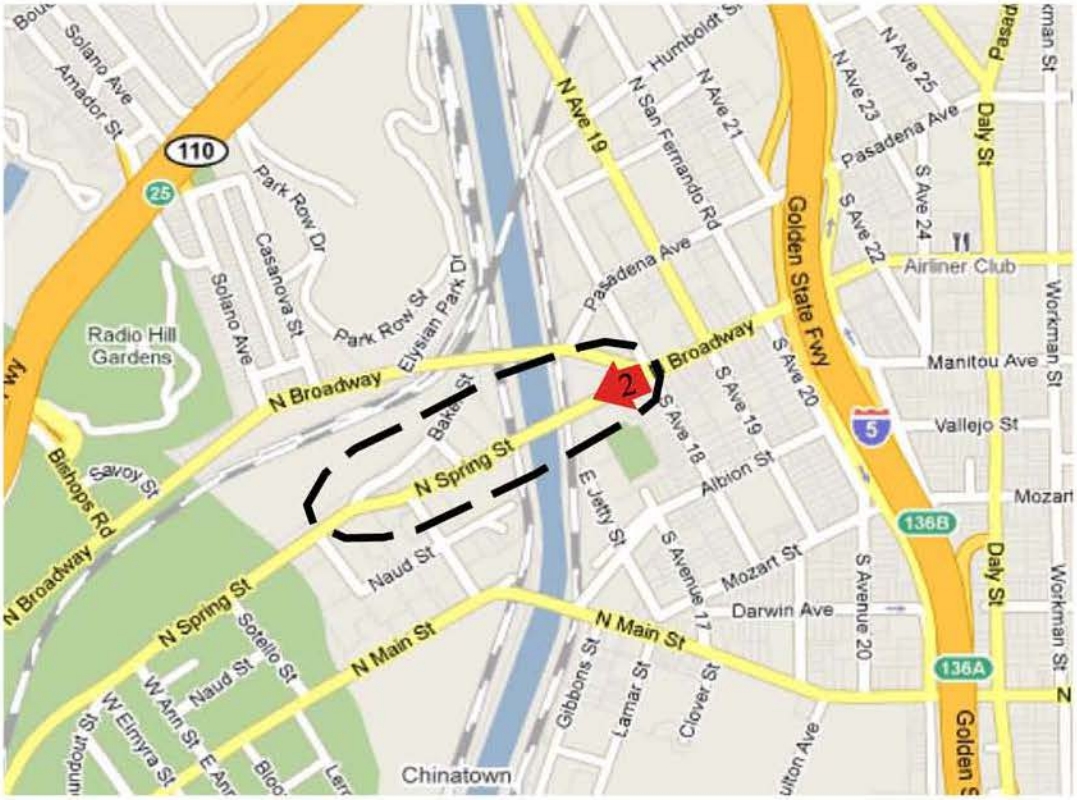
| | KEY VIEW #1 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT |
| | FIGURE 2-6 |

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K:\2009\North Spring Street\4-8-09\NEW 3-10-10\Figure 2-7 View2.ai

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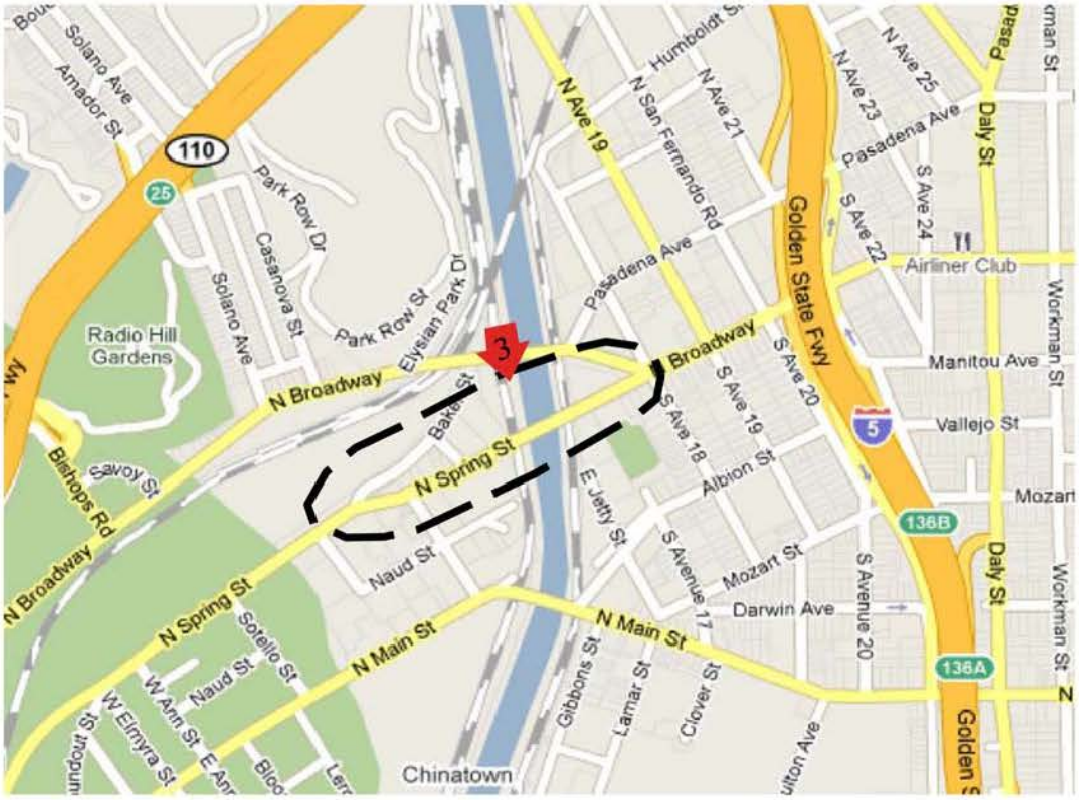
| | KEY VIEW #2 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT |
| | FIGURE 2-7 |

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K:\2009\North Spring Street\4-8-09\NEW 3-10-10\Figure 2-8 View3.ai

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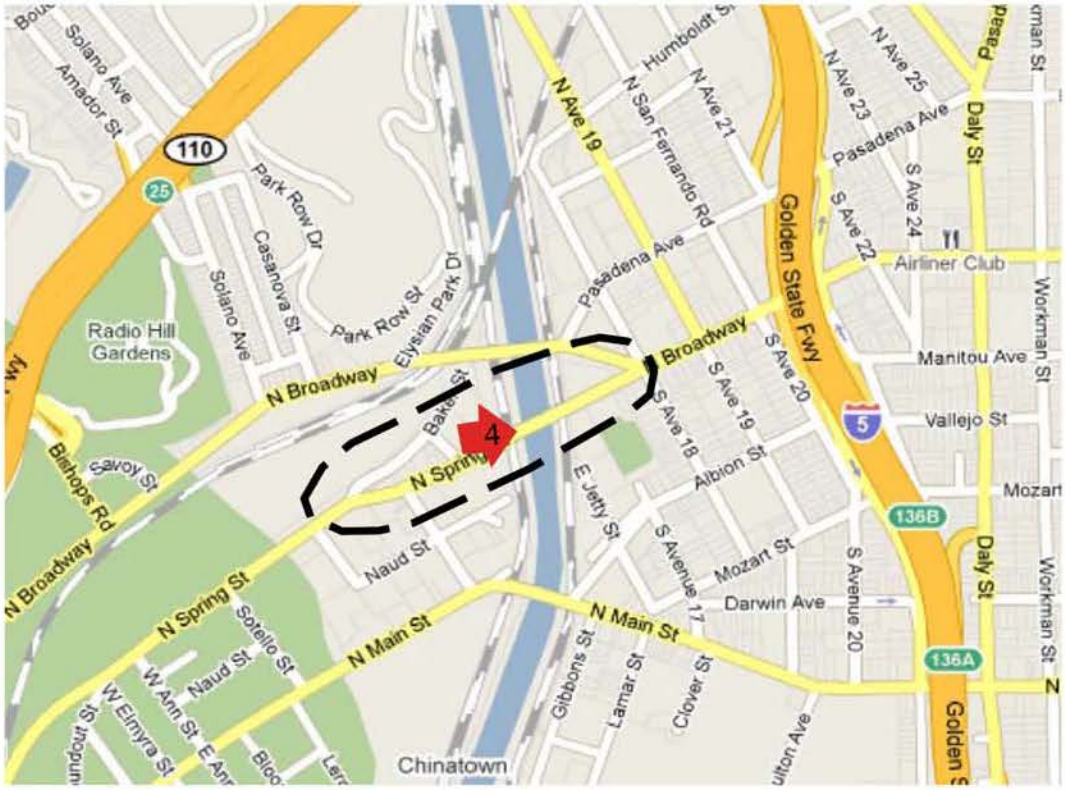
| ENGINEERING | KEY VIEW #3 | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-8 |

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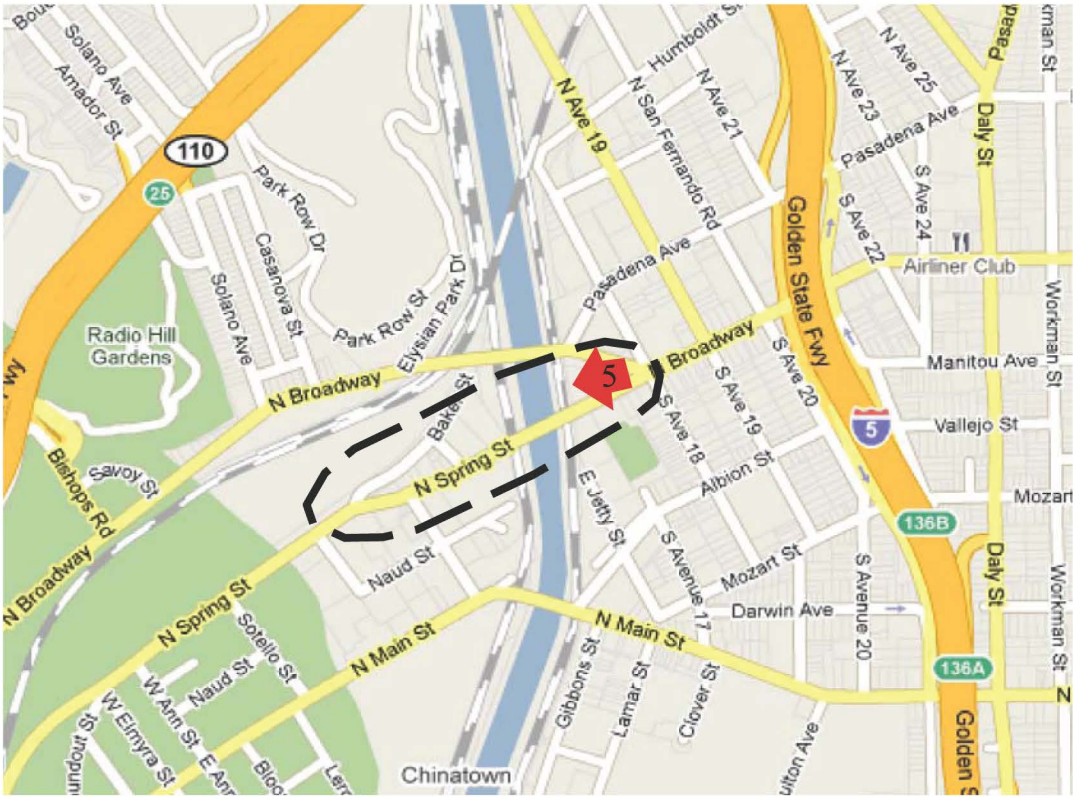
| ENGINEERING | KEY VIEW #4 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT |
| | FIGURE 2-9 |

K:\2009\North Spring Street\4-8-09\NEW 3-10-10\Figure 2-9 View4.ai

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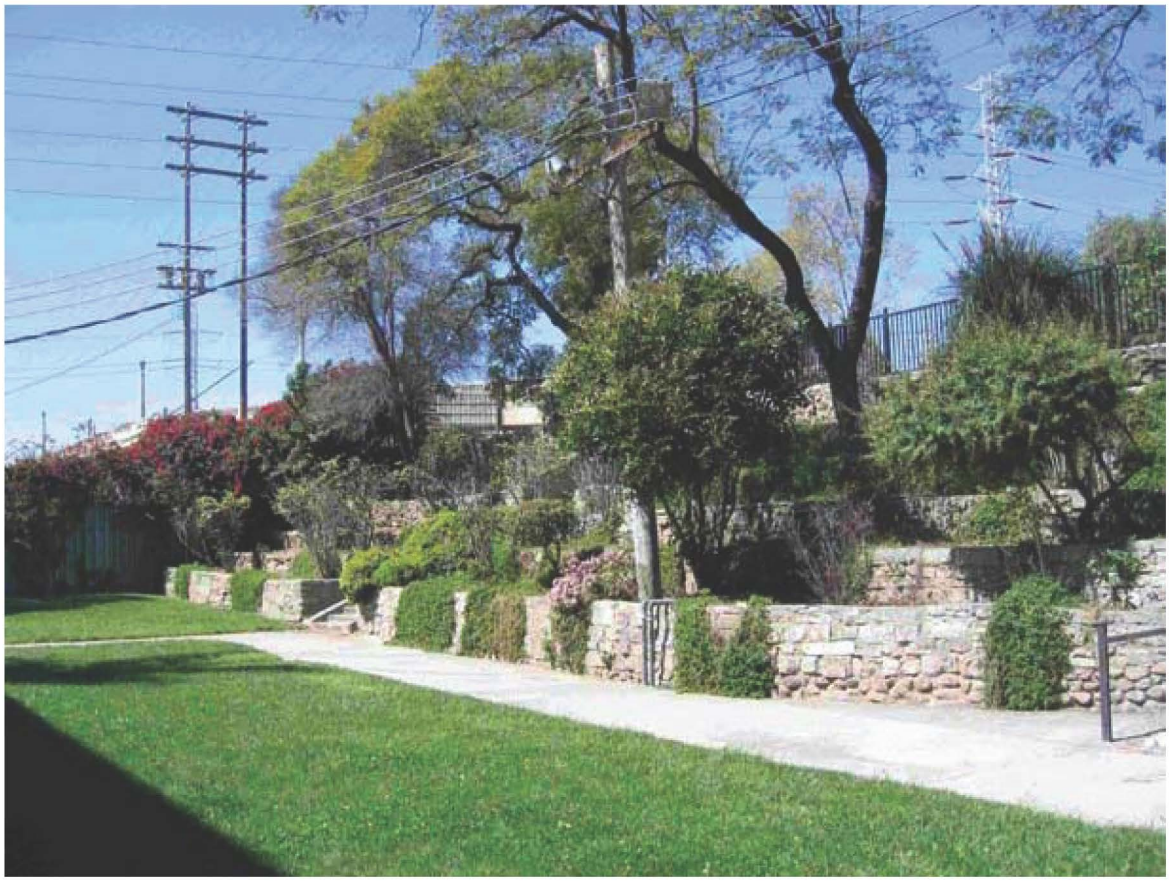
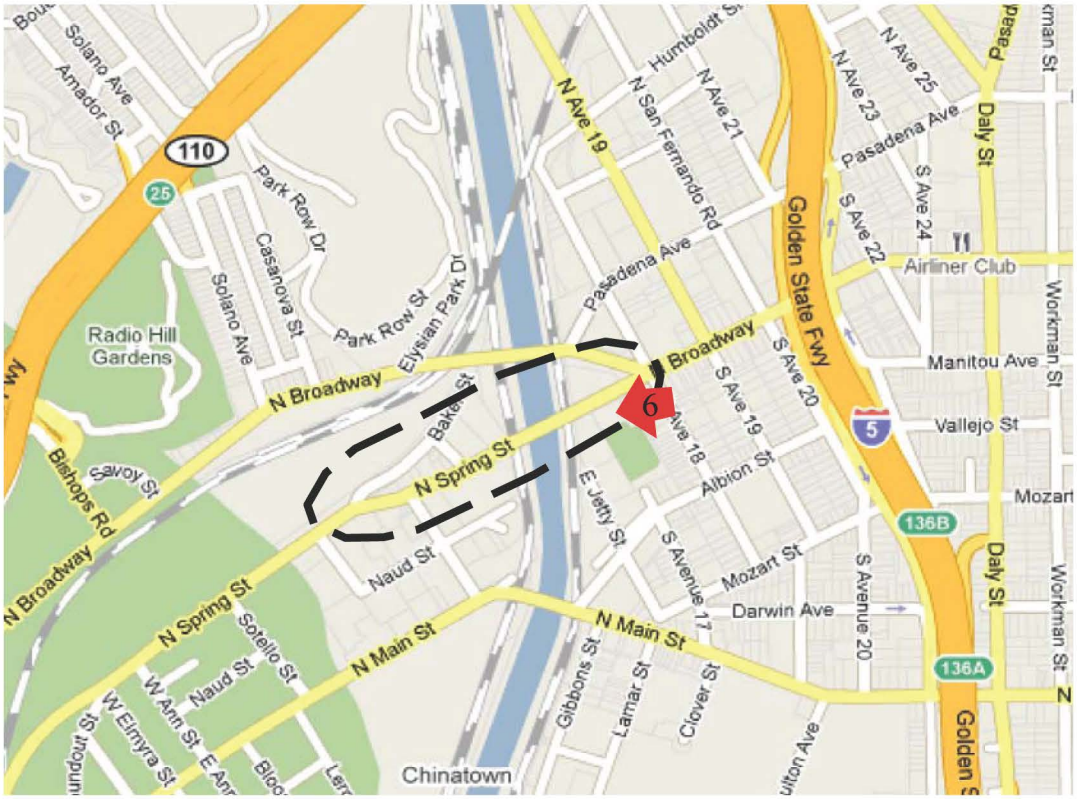
| | KEY VIEW #5 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-10 |



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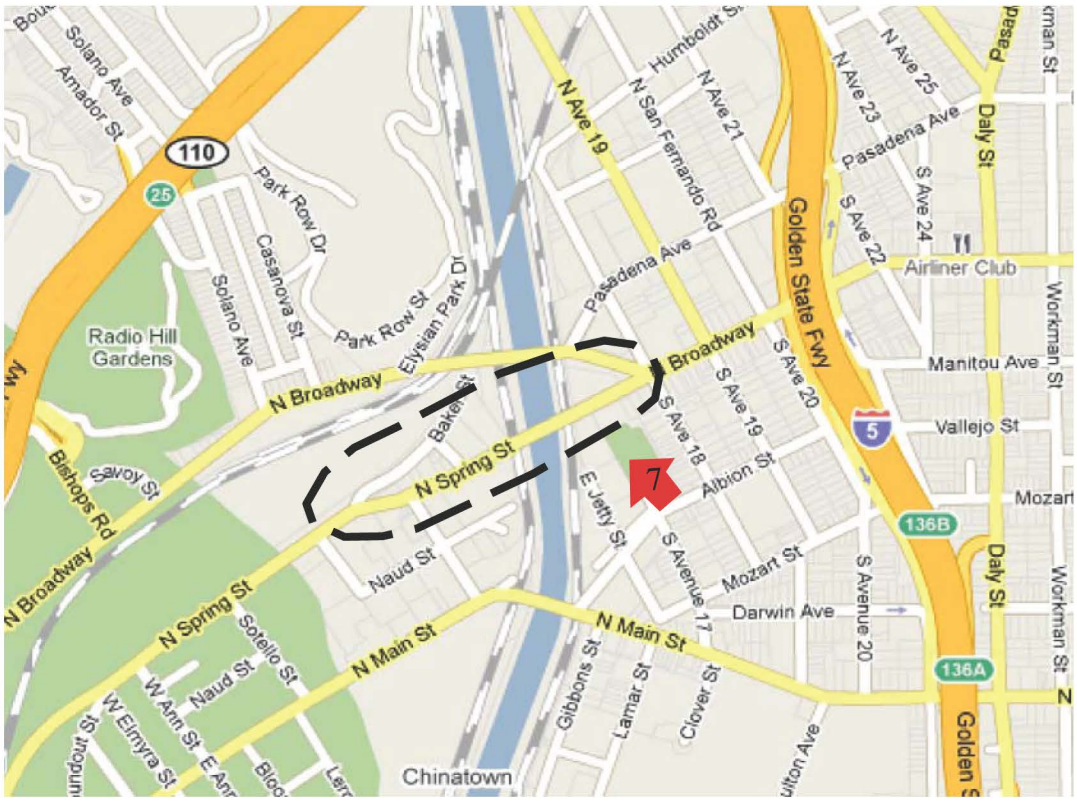
| | KEY VIEW #6 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-11 |

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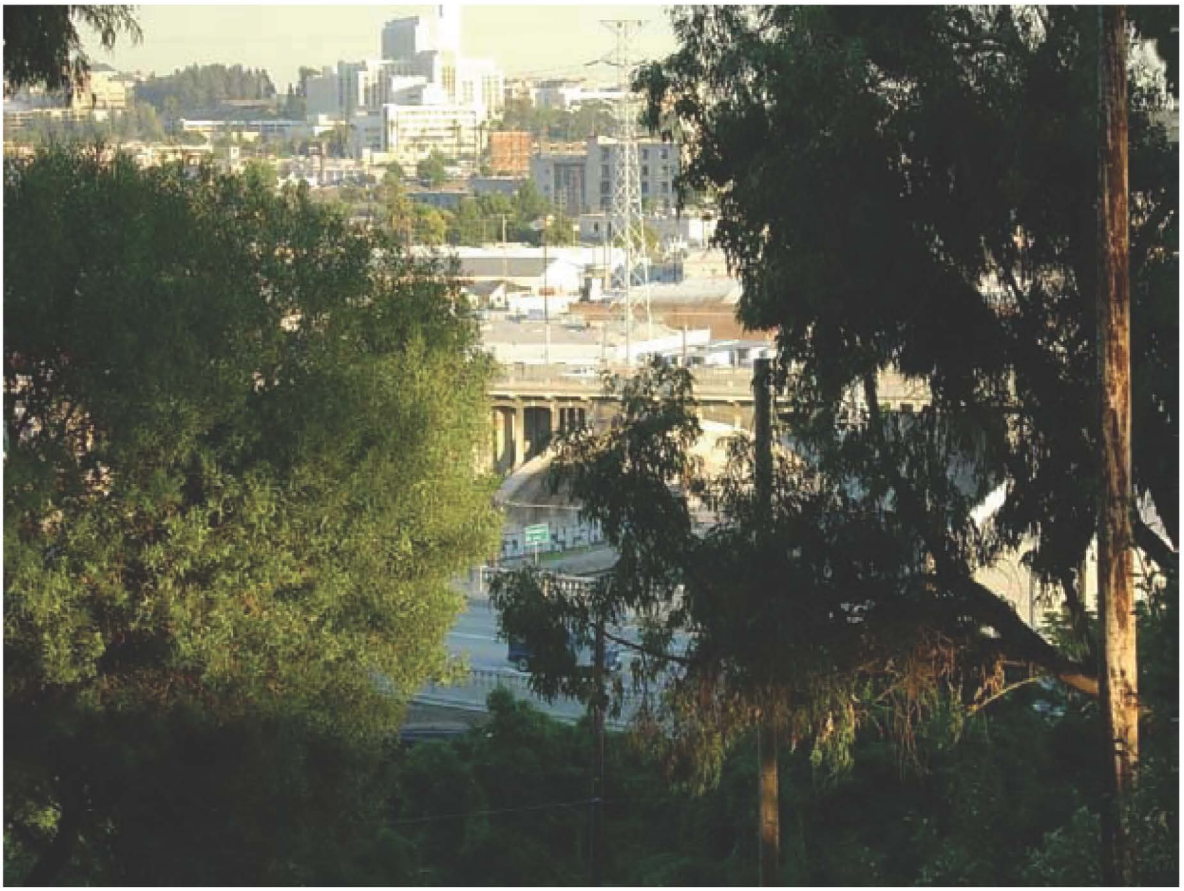
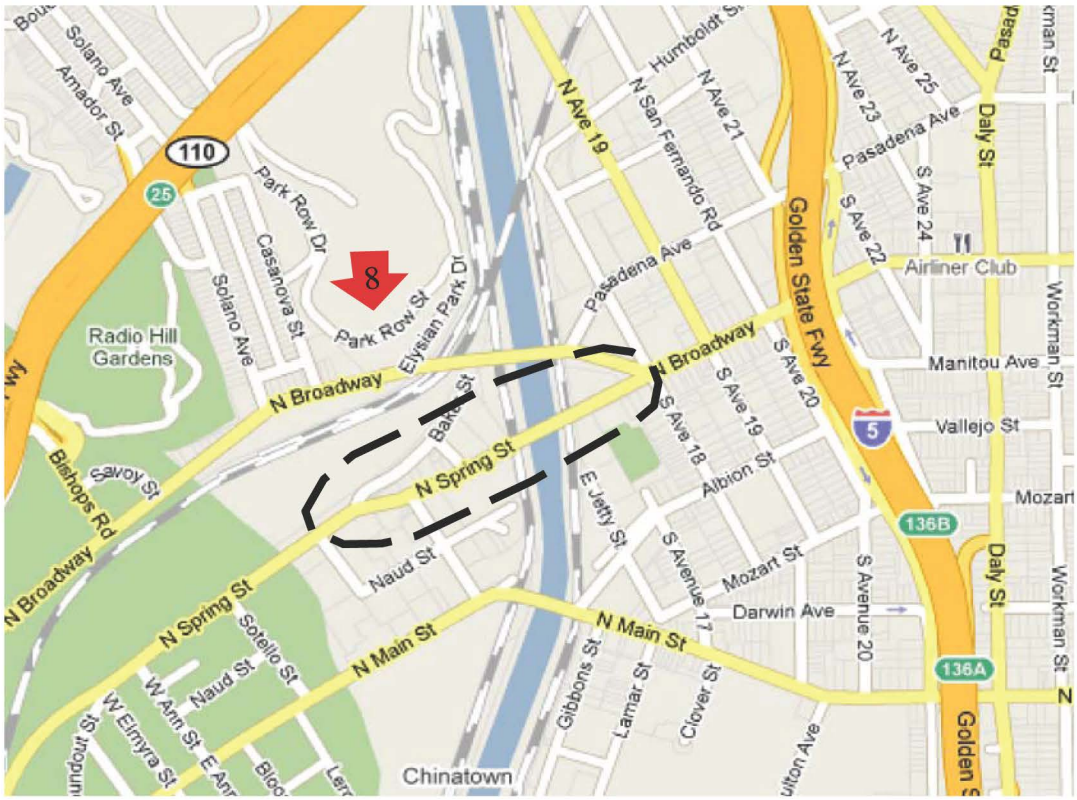
| | KEY VIEW #7 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-12 |



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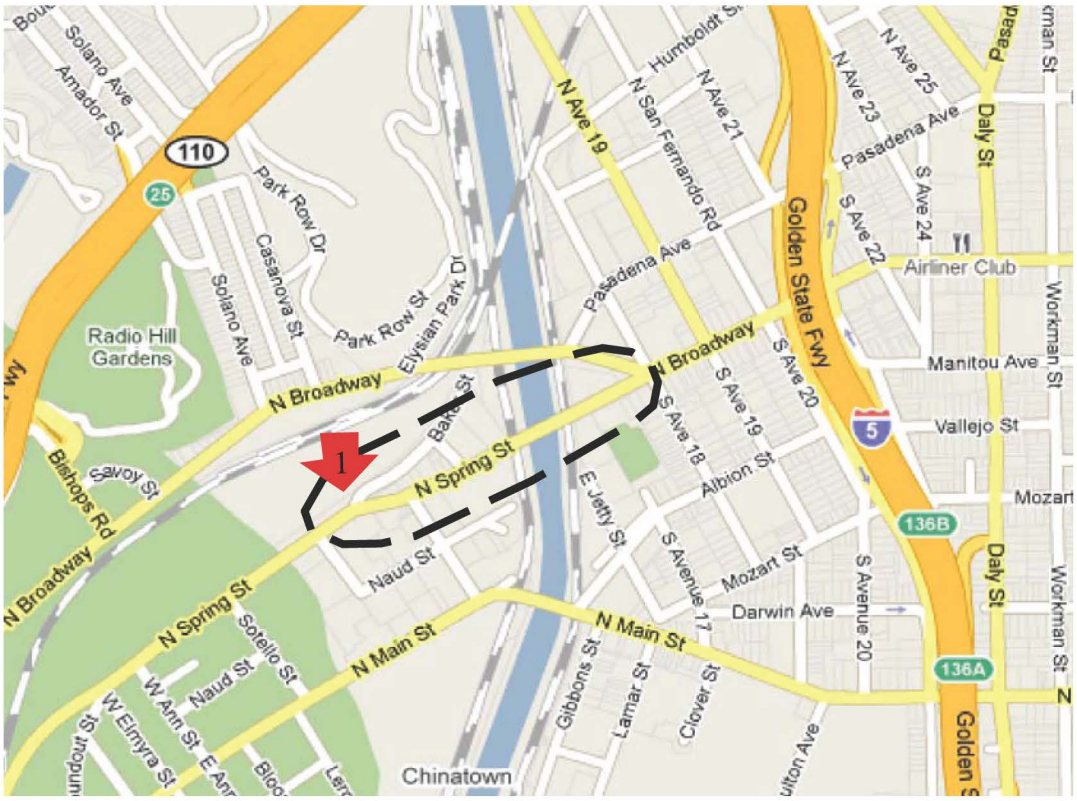
| | KEY VIEW #8 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-13 |

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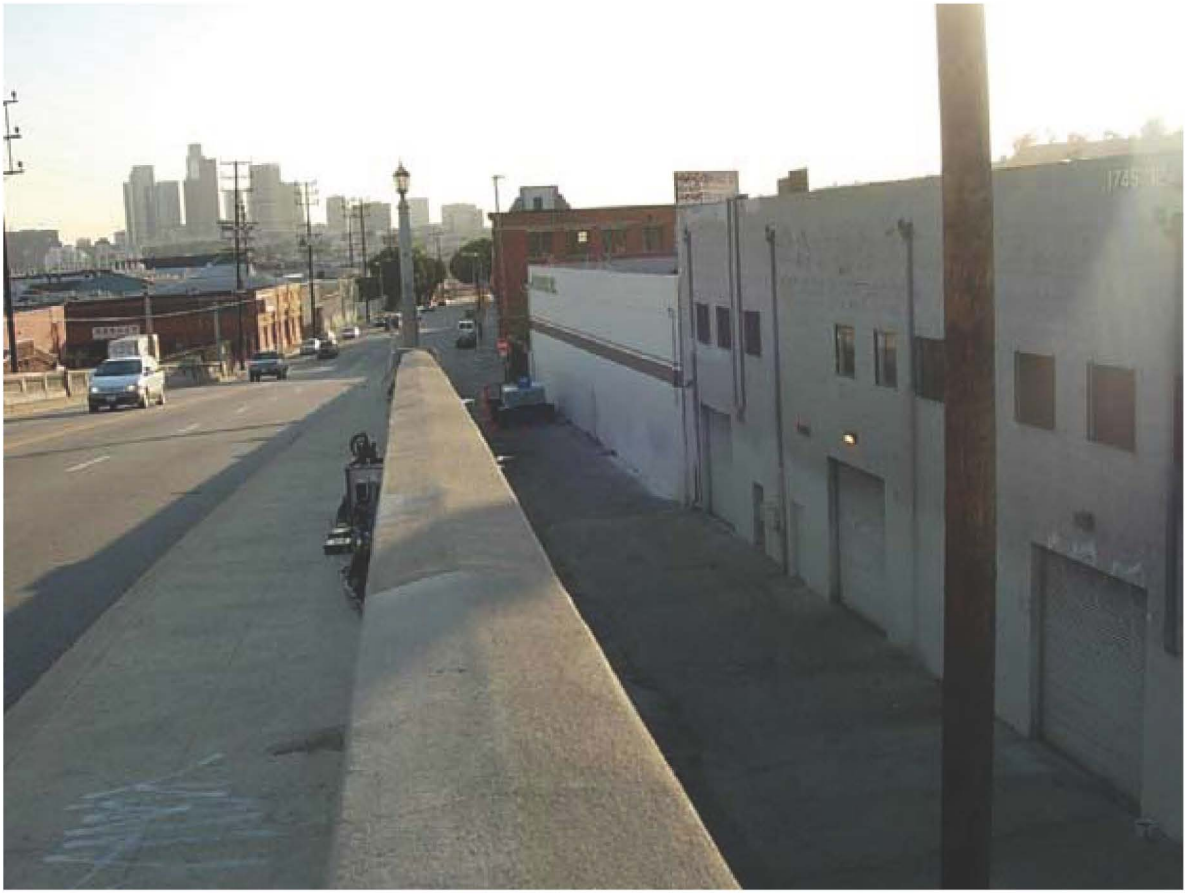
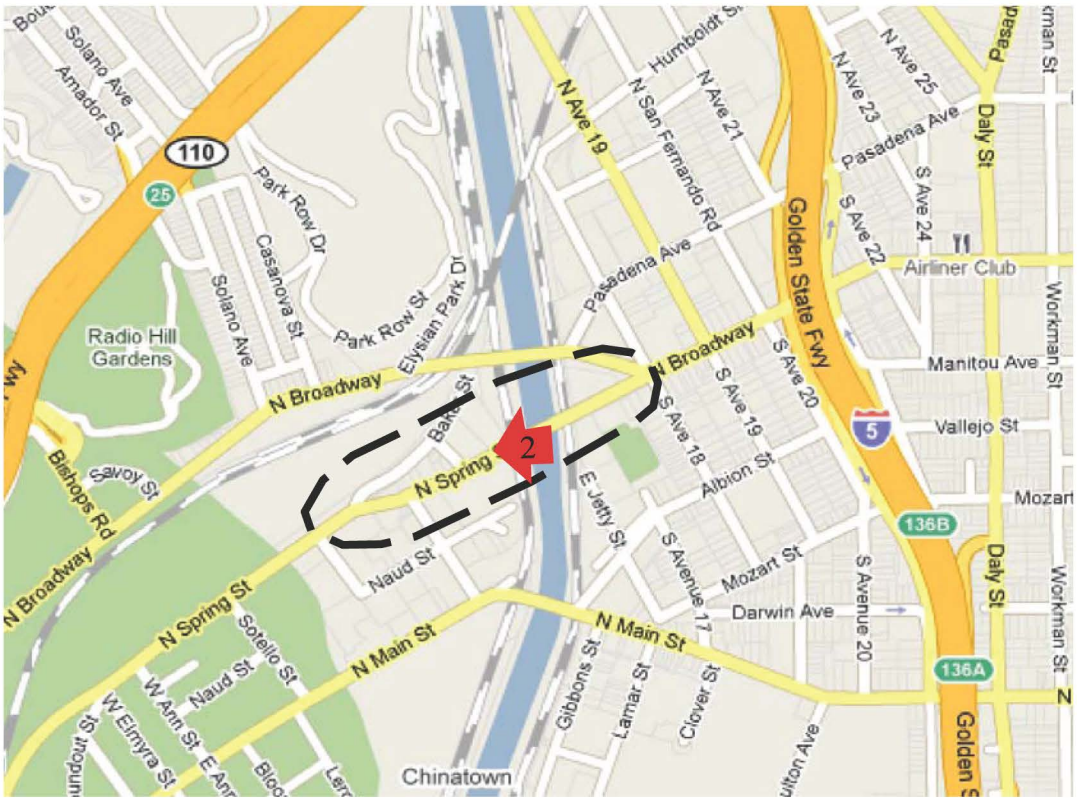
| | TYPICAL VIEW #1 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-14 |



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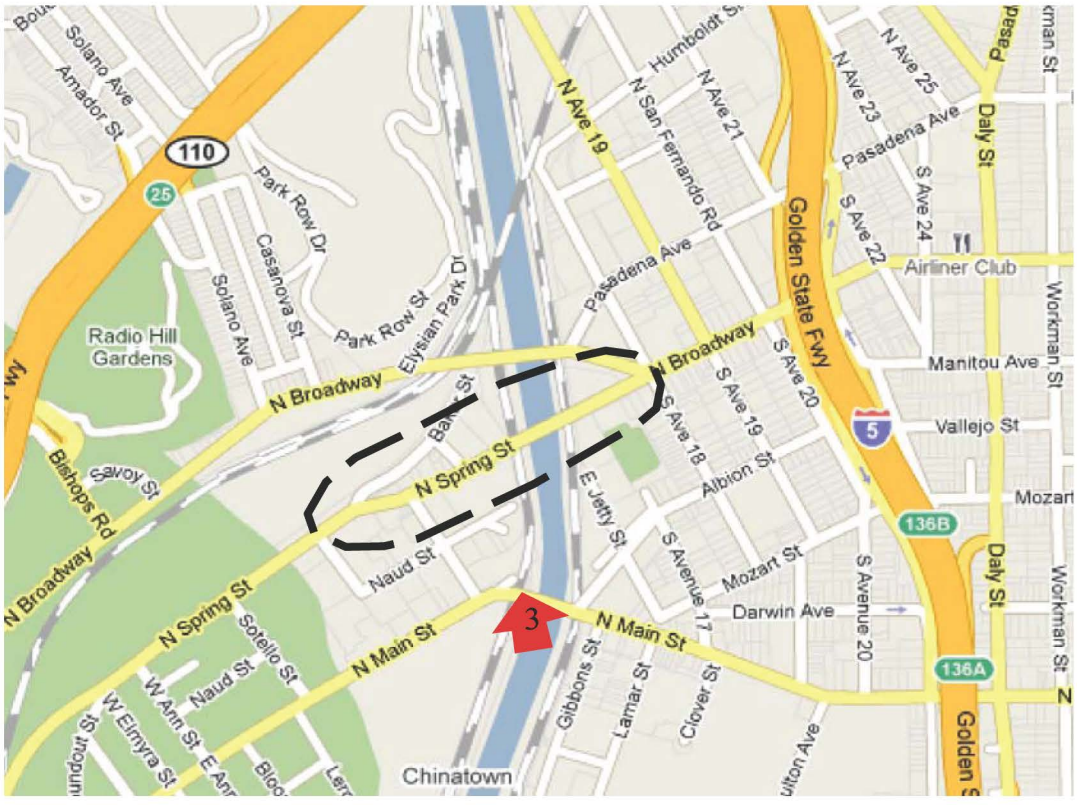
| | TYPICAL VIEW #2 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-15 |

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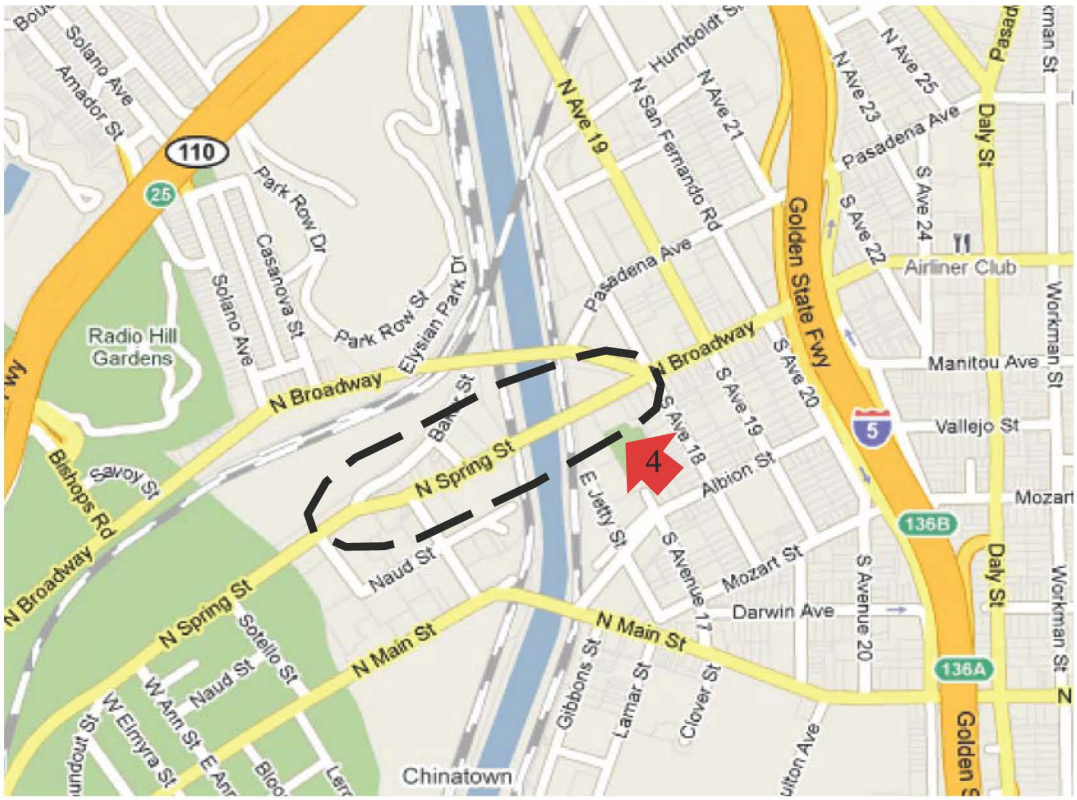
| | TYPICAL VIEW #3 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-16 |

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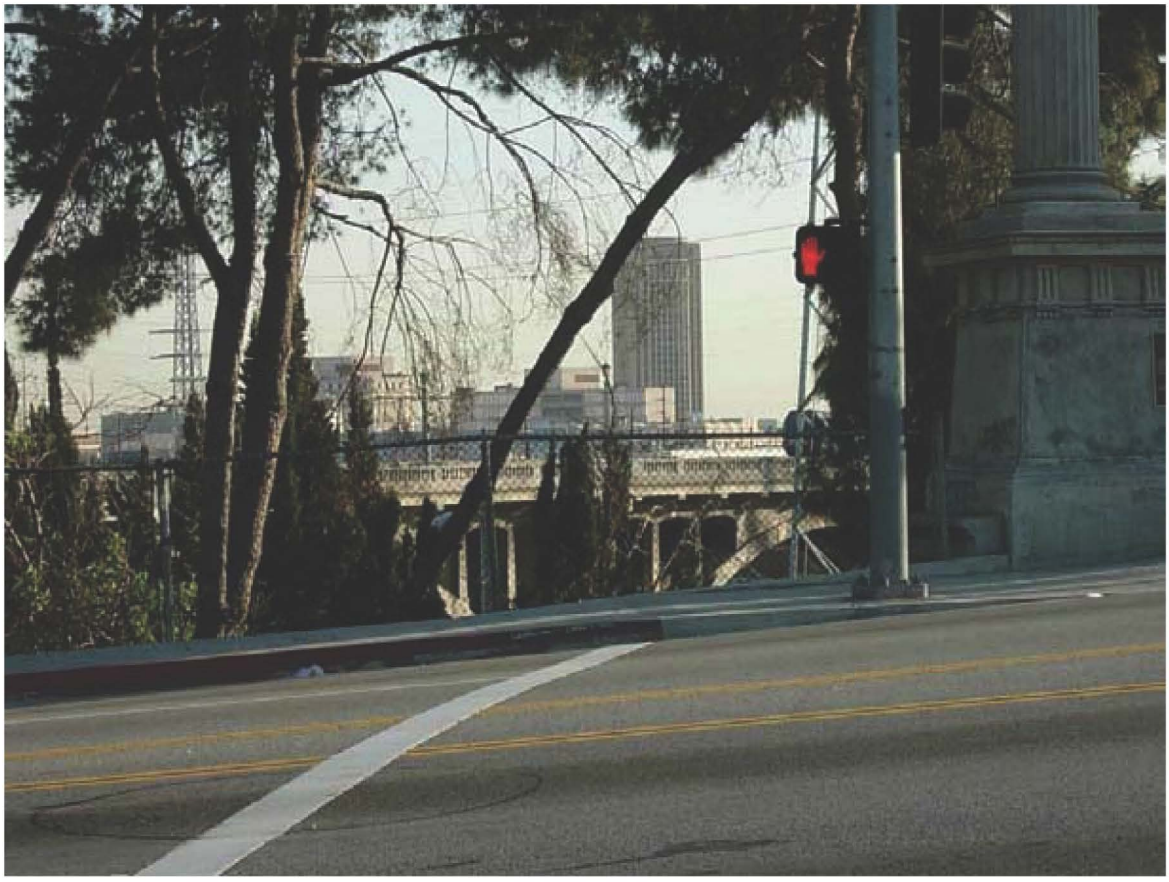
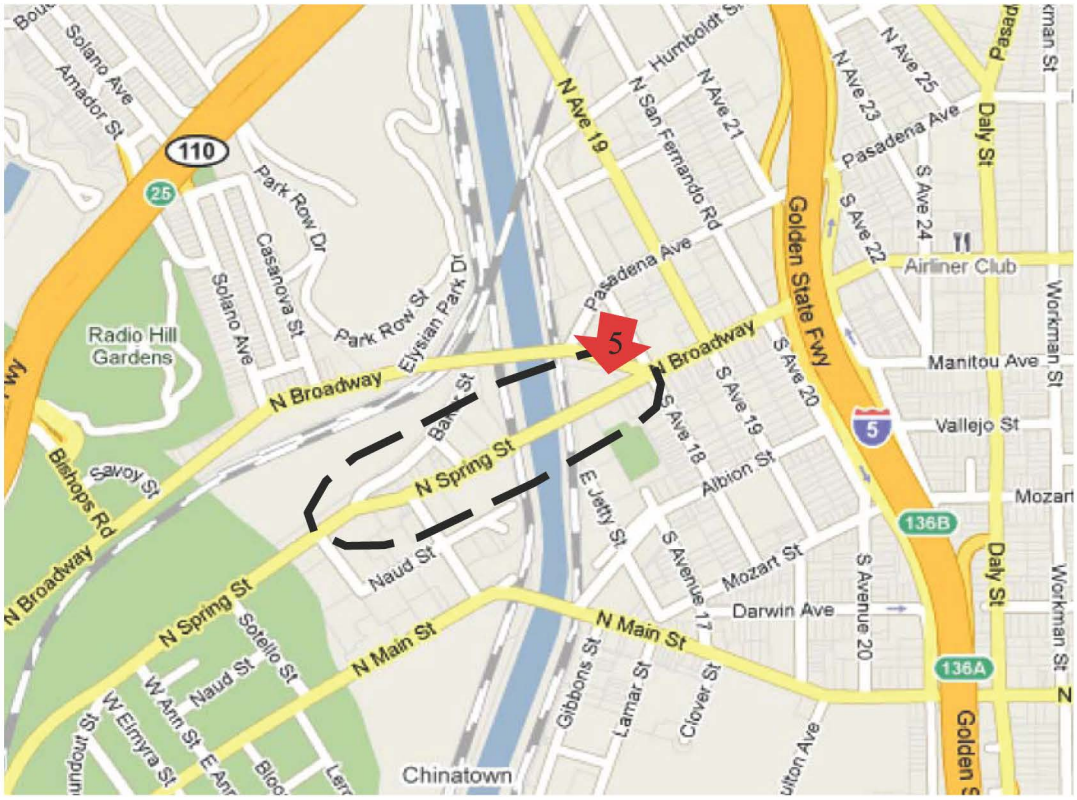
| | TYPICAL VIEW #4 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-17 |



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| | TYPICAL VIEW #5 |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-18 |

Key View #7

View of the North Spring Street Viaduct from residential backyard views. The North Spring Street Viaduct and roadway are minimally visible in the distance. A baseball field, as part of the Downey Recreation Center, is located in viewers foreground. Existing visual quality and visual character is classified as low (see *Figure 2-12*).

Key View #8

View of the North Spring Street Viaduct from park users from Park Row within nearby Elysian Park. Existing views of the North Spring Street Viaduct are primarily screened by existing vegetation. Existing visual quality and visual character is classified as moderate (see *Figure 2-13*).

Typical View #1

View looking southward from the LASHP toward existing intersection of North Spring Street and Baker Street between Mesnager Street and Wilhardt Street. Existing visual quality and visual character is classified as low (see *Figure 2-14*).

Typical View #2

View looking west along North Spring Street Viaduct toward downtown Los Angeles. Manufacturing buildings are located directly north and adjacent to the North Spring Street Viaduct. Existing visual quality and visual character are classified as moderate (see *Figure 2-15*).

Typical View #3

View of the North Spring Street Viaduct from travelers on Main Street looking north. Existing visual quality and visual character is classified as moderate (see *Figure 2-16*).

Typical View #4

View from baseball fields at Downey Recreation Center looking north toward the North Spring Street Viaduct in distance. The North Spring Street Viaduct is slightly visible in the background, partially obstructed by buildings. Existing visual quality and visual character is classified as low (see *Figure 2-17*).

Typical View #5

View looking southwest toward North Spring Street Viaduct from a nearby church at the intersection of North Broadway and Pasadena Avenue. View is mostly screened by vegetation. The existing visual quality and visual character is classified as low (see *Figure 2-18*).

### 2.6.3 Environmental Consequences

The visual impact of a project is determined by assessing the visual resource change due to the project and predicting viewer response to that change. Visual resource change is the sum of the

change in visual character and change in visual quality. The first step in determining visual resource change is to assess the compatibility of the proposed project with the visual character of the existing landscape. The second step is to compare the visual quality of the existing resources with projected visual quality after the project is constructed. The viewer response to project changes is the sum of viewer exposure and viewer sensitivity to the project. The resulting level of visual impact is determined by combining the severity of resource change with the degree to which people are likely to oppose the change.

#### 2.6.3.1 No Build Alternative

##### *Aesthetics and Views*

The No Build Alternative would result in no changes from existing conditions. The project site would remain in its current state. None of the proposed viaduct improvements would occur with this alternative. No views would be changed or obstructed under this alternative.

##### *Shading and Nighttime Illumination*

There would be no changes to existing daytime shading or nighttime illumination under this alternative.

#### 2.6.3.2 Build Alternative 1

##### *Aesthetics and Views*

Build Alternative 1 would result in no changes from existing conditions. The project site would remain in its current state. No views would be changed or obstructed under this alternative. With this alternative, views of the urban landscape under the bridge would be temporarily blocked during construction.

##### *Shading*

There would be no changes to existing daytime shading under this alternative.

##### *Nighttime Illumination*

There would be no impacts to shading and nighttime illumination under this alternative.

#### 2.6.3.3 Build Alternative 2

##### *Aesthetics and Views*

The buildings at 1701 North Spring Street would also be demolished under Build Alternative 2, which would cause a partial visual interruption to the façade of building currently located on North Spring Street (see *Figures 1-8, 1-9* and *1-10*). The aesthetic impact associated with the removal of the structures would be moderate to low (see *Typical View #1*).

The project would include widening an existing road and viaduct while maintaining the historic character of the site, and is not anticipated to degrade the overall existing quality or character of the site and its surroundings. The existing visual character of North Spring Street Viaduct is rated high due to its historic value. Under Build Alternative 2, the aesthetic features of the viaduct would be replaced with the same or similar components; therefore, although the same historical materials would not be used as replacements, the general changes to the visual character would be rated low.

Under Build Alternative 2 with Design Option A, the minimized widening would help to preserve the historic scale and feel of the deck and the single sided widening to the south would preserve the entire design and historic fabric of the viaduct as seen from the north. The intent of the south sided widening would be minimize physical impacts to the existing viaduct, while introducing a new, light weight, structure that minimally impacts the view of the historic viaduct from the south, while preserving the entire viaduct from the north.

The primary difference between Build Alternative 2 and Build Alternative 2 with Design Option A would be the potential use of "differentiated" features on the widened portions of the viaduct, rather than features intended to look similar to the existing Beaux-Arts features (see *Figures 1-5*, *1-6*, and *1-7*). This option was introduced to minimize impacts to the historic features of the viaduct, but would still create a new visual element in the setting, either on the south side of the viaduct. While this option would change the visual appearance of portions of the viaduct, it would be designed to be visually compatible in scale, location, setting, design, materials, workmanship, feeling, and association of the historic viaduct, and would be designed to maintain views of the existing viaduct features to the extent feasible.

If the differentiated design concept is chosen, then viewers on North Spring Street would see the difference between the south and north side; however, new features used would be compatible with the existing Beaux-Arts features, not be expected to result in a substantial change in the overall intactness of the setting. As a result, this differentiated design would not be expected to result in adverse visual impacts. The City may also choose the other option to replace the existing viaduct features with those that would have a similar look to the existing Beaux-Arts design.

The overall visual quality rating of the proposed project area is moderate due to memorability of the features of the historic viaduct mixed with the urban nature of nearby structures, the change in the original setting due to lack of integrity between existing development with the roadway and viaduct, and a moderate level of unity between man-made landscapes and the roadways and viaduct.

Viewer sensitivity to the proposed project is moderate. Most viewers within the proposed project area are focused away from the project and therefore have low viewer sensitivity. The viewer

sensitivity levels of both key views and typical views of the proposed project as well as from the proposed are listed below in *Table 2-13*. Specific descriptions of each viewpoint are described in further detail in the VIA[11].

**Table 2-13 Viewer Sensitivity Rating**

| | High | Moderate to High | Moderate | Moderate to Low | Low |
|---|---|---|---|---|---|
| **Key Views From Project** | #1, #2, #4 | #3 | | | |
| **Key Views of Project** | | | | #5, #6 | #7, #8 |
| **Typical Views of Project** | | | #2, #3 | Other typical view # 1 | #4, #5 |

Viewer exposure for the majority of viewers is rated low since most viewers would be exposed to changes in views for short periods of time while traveling at high rates of speed. With the addition of bicycle lanes and sidewalks, the duration of views of the project area could be lengthened. Viewer exposure for each of the views identified is detailed in the *Table 2-14* below. Specific descriptions of each viewpoint are described in further detail in the VIA[12].

**Table 2-14 Viewer Exposure Rating**

| | High | Moderate to High | Moderate to Low | Low |
|---|---|---|---|---|
| **Key Views From Project** | #1, #2, #4 | #3 | | |
| **Key Views of Project** | | | #5, #6 | #7, #8 |
| **Typical Views of Project** | #1, #2 | | #3. #4 | #5 |

Aesthetic impacts have the potential to occur since many project features viewable from these key views would be replaced. Some trees and landscaping may be removed along the construction route, which would also have the potential to adversely affect aesthetics of the project area if not replaced in kind. *Figures 1-8, 1-9,* and *1-10* show visual simulations of the widened viaduct from the west and east side of the viaduct that incorporate these measures.

As compared to Build Alternatives 2 and 3, Alternative 2 with Design Option A would not change viewer sensitivity or exposure from any of the key viewpoints. Public outreach has been conducted following the development of Design Option A, and the key elements, including the two potential design concepts, have been introduced to the public participants. Viewer sensitivity regarding the viaduct is primarily based on its historic significance, and the overall response to the new design option has been positive, in particular the elements that would serve to preserve its historic significance, have been positive.

[11] Visual Impact Assessment, North Spring Street Bridge Widening and Rehabilitation Project, URS Corporation; March 2006
[12] Ibid.

#### *Shading*

The widening of the existing viaduct increases the area of shade and shadow underneath the structure. The shadows from the widened viaduct in Build Alternative 2 would be cast on buildings along the north side of the frontage road. However, the proposed project impact would not be noticeable because there are no shadow sensitive uses located below the viaduct. Under Design Option A, shading effects from widening the north side would not occur.

#### *Nighttime Illumination*

The location of the lighting would be slightly different due to viaduct widening and current standards and this change is not anticipated to result in a substantial increase to daytime or nighttime glare in the area. The proposed project would not add any new sources of light or glare only replace the existing features with similar light features. No new sources of glare are associated with the proposed project. Furthermore, at night, because the viaduct would be at the same horizontal alignment, vehicle headlights would not be expected to add to the overall nighttime glare.

### 2.6.3.4 Build Alternative 3

#### *Aesthetics and Views*

Impacts associated with Build Alternative 3 would be similar to those occurring under Build Alternative 2. In addition to the demolition of the buildings at 1701 North Spring Street, the building at 1635 North Spring Street would also be demolished, which would cause a partial visual interruption to the façade of buildings currently located on North Spring Street (see *Figures 2-19* and *2-20*). The aesthetic impact associated with the removal of the two structures would be moderate to low (see *Typical View #1*).

#### *Shading*

In terms of shading, impacts under Build Alternative 3 would be similar to Build Alternative 2.

#### *Nighttime Illumination*

In terms of nighttime illumination, impacts under Build Alternative 3 would be similar to Build Alternative 2.

## 2.6.4 Construction Impacts

For purposes of this analysis, construction impacts are defined as those temporary changes that would be in effect only during construction of the proposed project.

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VIEW FROM DOWNEY RECREATION PARK

| | | |
|---|---|---|
| LA DPW ENGINEERING | BUILD ALTERNATIVE 3 PHOTO SIMULATION | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-19 |

LOOKING TOWARD NORTH

| | |
|---|---|
| LA DPW ENGINEERING | BUILD ALTERNATIVE 3 - EXTENDED WILHARDT STREET PHOTO SIMULATION |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT \| FIGURE 2-20 |

#### 2.6.4.1 No Build Alternative

No impact to visual resources over the baseline condition would occur under the No Build Alternative.

#### 2.6.4.2 Build Alternatives 1, 2, and 3

In terms of visual and aesthetic issues, construction phase impacts under Build Alternatives 1, 2, and 3 would be similar. Demolition and construction activities generate visual and aesthetic images that are generally disruptive to the status quo and may be undesirable or offensive to some affected individuals or groups. The presence and operation of construction equipment, such as heavy trucks, cranes, or excavators, some of which could be present within the river itself would likely be experienced as disruptive and/or out of context.

Aesthetic impacts could also occur at any of the three locations that have been tentatively identified for use as candidate construction staging areas. These consist of the north and south areas under the viaduct, along the west end intersection of the viaduct and North Spring Street; and the northeastern end of the viaduct, located on the Downey Recreation Center property. Impacts of the staging facilities would be considered low due to the small areas of these sites and their locations adjacent to railroad corridors and industrial uses. Moreover, standard specifications mandate the restoration of construction staging and laydown areas to their previous condition. Overall, due to the temporary nature of these impacts, they are not considered substantial.

### 2.6.5 Cumulative Impacts

Cumulative beneficial aesthetic impacts are expected as a result of the improvements from the proposed project, improvements at the LASHP, and proposed private development projects in the area. All of these projects are in the context of an overall renewal of the urban environment encompassing the Los Angeles River/East Los Angeles area, and are likely to have a cumulative positive visual and aesthetic impact in the long term. The proposed project would present opportunities for pedestrians and bicyclists to enjoy vistas of the Los Angeles River, surrounding historic viaduct, the LASHP, and surrounding urban landscape. Overall, project contributions to cumulative impacts are considered less than cumulatively considerable.

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

The following mitigation measure is recommended for all build alternatives to minimize potential project-related impacts from these alternatives:

**MM AES – 1:** Existing trees and/or landscaping that are to be removed should be replaced with similar plantings and/or landscaping as agreed upon by the City's Street Services Bureau, Urban Forestry Division, and in conjunction with the Recreation and Park Architecture.

# 2.7 Historical Resources

## 2.7.1 Regulatory Setting

### 2.7.1.1 Federal

#### *Section 106 of the National Historic Preservation Act (NHPA)*

The NHPA sets forth national policy and procedures regarding the treatment of historic properties, including districts, sites, buildings, structures, and objects that are included in or determined eligible for the Nation Register of Historic Place (NRHP). Section 106 of NHPA requires federal agencies to take into account the effects of their undertakings on such properties and to allow the Advisory Council on Historic Places (ACHP) the opportunity to comment on those undertakings, following the regulations implementing Section 106 codified in 36 CFR 800. On January 1, 2004, a programmatic agreement (PA) between the ACHP, FHWA, the State Historic Preservation Officer (SHPO), and Caltrans went into effect for Caltrans and local agency projects with FHWA involvement. The Section 106 PA streamlined the Section 106 process and delegated certain responsibilities to Caltrans. The FHWA's responsibilities under the PA were assigned to Caltrans as part of the Surface Transportation Project Delivery Pilot Program (23 CFR 773) on July 1, 2007.

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

Historic properties are also covered under Section 4(f) of the U.S. Department of Transportation (U.S. DOT) Act, which regulates the "use" of land from historic properties. See Section 2.2.7 and Appendix B for specific information regarding Section 4(f).

#### *Historic Bridge Rehabilitation/Replacement Decision-Making Guidelines*

The American Association of State Highway and Transportation Officials (AASHTO) has prepared Guidelines for Historic Bridge Rehabilitation and Replacement[13]. AASHTO is a nonprofit, nonpartisan association representing highway and transportation departments in the 50 states, the District of Columbia, and Puerto Rico. While there is no legal mandate that requires local agencies to adhere to these guidelines, a summary of the guidelines are provided here to assist decision makers and local agencies in the treatment of historic bridges.

Overview

Those involved with keeping historic bridges in service have struggled to codify or quantify a threshold or rule for when rehabilitation is feasible and prudent and when it is not. Ultimately, the rehabilitation or replacement decision, as with any bridge, is based on the cost and level of effort needed to make it safe and adequate. If a bridge can be improved to an acceptable level in

[13] AASHTO. March 2007. Guidelines for Historic Bridge Rehabilitation and Replacement.

a feasible and prudent manner without destroying what makes it historic, then it is generally a viable candidate for rehabilitation.

These guidelines are based on using three key aspects of adequacy that, when balanced with environmental issues, can serve as thresholds defining when rehabilitation of historic bridges is feasible and prudent and when it is not. The three aspects of adequacy are (1) superstructure and substructure condition, including scour and waterway adequacy, (2) geometry and safety, and (3) load-carrying capacity. While the thresholds are applicable in most instances, there may also be other issues, including NEPA-related issues that affect the decision. The guidelines lead decision makers through four steps that result in balanced and appropriate decisions. Each step integrates engineering and historic preservation considerations and is intended to achieve iterated assessments.

*Step 1: Understanding What Makes a Bridge Historic*

The first step, and the one that underlies all planning and preliminary engineering assessments, is to understand why a bridge is historic. By understanding what makes a bridge historic, decision makers can proceed to consideration of feasible and prudent ways to preserve significant features without having an adverse effect. This is often done by upgrading or even replacing features of lesser importance. Integrating this assessment of effect of any proposed actions on the historic bridge is at the heart of meeting the federal regulatory processes required under Section 106 of the NHPA, Section 4(f) of the U.S. DOT Act, and NEPA. The clearer the understanding of significant features, the more successful the selected alternative will be, whether a historic bridge is rehabilitated or replaced. The understanding informs appropriate mitigation measures when they are required.

Knowledgeable historians and preservationists are responsible for understanding and articulating which members are historically important and should be retained whenever possible, and which can be modified without having an adverse effect. It is also their responsibility to be reasonable and exercise good judgment that facilitates rather than hinders rehabilitation.

<u>Members/Components That Generally Have Historical Significance</u>

The following is a list of bridge members and components that are generally considered significant features of historic bridges. The list is not intended to be comprehensive as significance and importance can vary depending on the bridge type and design and why it is historic.

- Technologically significant components or details. This addresses a wide variety of items from panel point connections on metal truss bridges to early reinforcing designs for concrete to continuous beams and suspended section connections.
- Particular configurations of truss design, such as Pratt, Warren, Whipple, etc.

- Completeness of early examples of common bridge types.
- Stone masonry bond patterns.
- Mortar joint types and compositions.
- Arch rings and related spandrel walls.
- Aesthetic railings. This does not include standard-design railings, which are rarely aesthetic.
- Scale of bridges located in historic districts.

Members/Components That Generally Are Not Vital to Retain

The following is a list of bridge members and components that are generally not considered significant features. The list is not intended to be comprehensive as significance and importance can vary depending on the bridge type and design and why it is historic.

- Decks, unless they are an early or rare example of significant design, such as a brick jack arch or composite.
- Standard-design railings unless they are an integral component of a significant standard design.
- Substructure units unless they are historically or technologically significant or an integral part of significant design.
- Stringers and floor beams, unless the deck is significant.
- Rivets.
- Exact dimension and strength of structural steel.
- Existing railings when replaced with compatible ones that meet safety considerations and reflect the original design.
- Location of metal truss bridges. Truss bridges have historically been relocated and reused.
- Bearings.

*Step 2: Applying Structural and Functional Considerations*

Once the significance of the bridge is understood, the next step is to determine if the engineering objectives can be achieved while preserving what makes the bridge historic. As stated previously, the engineering decision whether to rehabilitate or replace a historic bridge, as with any bridge, is driven primarily by the ability to improve it to an acceptable level. This decision generally means addressing three areas of functional and operational adequacy: superstructure and substructure condition, scour and waterway adequacy, load-carrying capacity, and geometry and safety features. Step 2 takes those three aspects of adequacy and balances their consideration with historic preservation issues. The three aspects of functional and operational adequacy come into play again in Step 4 as the thresholds for defining when rehabilitation is feasible and prudent and when it is not, but only after historical and environmental considerations have been integrated into the analysis.

The convention for defining superstructure and substructure adequacy is the National Bridge Inspection Standards (NBIS) condition rating code (see *Table 2-15*). Values from zero to 9 are linked to definitions that characterize the overall physical condition, not localized deterioration or disrepair. These guidelines are based on using a condition rating of 4 (poor condition) as the qualifier for when a bridge may have rehabilitation potential. Experience has demonstrated that a condition rating of 4 or higher suggests that structural condition is conducive to rehabilitation. This does not mean that a current condition rating of less than 4 is reason to replace a historic bridge since many bridges with this condition rating can be improved at a reasonable cost. Condition ratings should be based on a current, in-depth, hands-on inspection, and any test results.

**Table 2-15 Condition Rating Descriptions**

| Code | Description |
|---|---|
| N | NOT APPLICABLE |
| 9 | EXCELLENT CONDITION |
| 8 | VERY GOOD CONDITION - no problems noted. |
| 7 | GOOD CONDITION - some minor problems. |
| 6 | SATISFACTORY CONDITION - structural elements show some minor deterioration. |
| 5 | FAIR CONDITION - all primary structural elements are sound but may have minor section loss, cracking, spalling or scour. |
| 4 | POOR CONDITION - advanced section loss, deterioration, spalling or scour. |
| 3 | SERIOUS CONDITION - loss of section, deterioration, spalling or scour have seriously affected primary structural components. Local failures are possible. Fatigue cracks in steel or shear cracks in concrete may be present. |
| 2 | CRITICAL CONDITION - advanced deterioration of primary structural elements. Fatigue cracks in steel or shear cracks in concrete may be present or scour may have removed substructure support. Unless closely monitored it may be necessary to close the bridge until corrective action is taken. |
| 1 | "IMMINENT" FAILURE CONDITION - major deterioration or section loss present in critical structural components or obvious vertical or horizontal movement affecting structure stability. Bridge is closed to traffic but corrective action may put back in light service. |
| 0 | FAILED CONDITION - out of service - beyond corrective action. |

Table 1. Condition rating descriptions. From *Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges*, Federal Highway Administration, Report No. FHWA-PD-96-001, December 1995, p. 38.

Historic bridges, depending upon their age, may or may not have had substructures sized to account for any scour effects. Additionally, they may not meet current design guidelines, which are based on a 100-year flood event.

*Step 3: Historical and Environmental Considerations*

Since these guidelines are intended to balance historic preservation with engineering issues throughout the decision-making process, there is likely to be some overlap between Steps 2 and 3 as consideration of some historical issues have already been integrated into the analysis of the engineering data in Step 2. Given the breadth and variety of historical and environmental issues, there may be other factors that must be taken into account. This could include looking at engineering judgments from the environmental perspective, particularly non-construction methodologies. Considerations vary from project to project depending on factors like bridge type, severity of deficiencies, setting or historic context, and other environmental issues.

The following are some of the commonly applicable historical and environmental considerations that, at a minimum, should be considered. This could include looking at selected engineering judgments from the environmental perspective:

- Are there additional environmental constraints like wetlands, historic archaeological sites, takings, or other NEPA issues that must be considered? If so, do they affect the feasibility of particular methods to rehabilitate or replace the bridge?
- Does the required work to address deficiencies exceed what is generally considered to be prudent? This includes cost and other effects to non-Section 4(f) properties like communities or natural resources.
- Can the project goal be achieved without an adverse effect to historic properties?
- Is the SHPO placing too much emphasis on visual effects of proposed modifications at the expense of losing an opportunity to otherwise retain a historic bridge?
- With the understanding that safety cannot be compromised is rehabilitation possible using *de minimis* impacts or a design exception?
- Does the project meet the regulatory definition of adverse effect but still preserve what makes the bridge historic? In this instance it may be the feasible and prudent alternative even though it is determined to have an adverse effect.
- Is required work so extensive that, while feasible, it is not prudent given the initial cost and effect on a historic bridge?
- Are the engineering conclusions well supported? Was avoiding or not using the historic bridge considered?
- Can the project goal be achieved using minimally acceptable or tolerable design criteria?
- Can the roadway be reclassified to lower the definition of what is structurally and geometrically adequate?

- Is the project need and purpose statement appropriate to the setting? For example, is a 40-foot wide bridge scoped for a project that has a lengthy 24-foot wide approach roadway with no improved shoulders?
- Have non-construction alternatives to meeting the project goal been explored?
- Have the views and values of the community been appropriately addressed?
- Is preservation being used as the reason to resolve land use and zoning issues thus skewing the importance of the bridge to the detriment of sound engineering and/or safety? Use the information from Steps 1 through 3 to define and support when rehabilitation of a historic bridge is feasible and prudent and when it is not.

*Step 4: Applying the Decision-Making Thresholds*

Step 4 uses the aspects of adequacy – the structural and functional/safety factors – tempered with historic considerations to define when rehabilitation of a historic bridge can be considered feasible and prudent and when it can not. This is where the decision to rehabilitate or replace a historic bridge is supported and justified by applying the decision-making thresholds to the findings and conclusions from Steps 1 through 3. Step 4 starts with understanding the meaning of prudent and feasible and moves to applying that understanding to the thresholds of adequacy to support the decision to rehabilitate or replace the historic bridge.

To facilitate advancing projects through the NEPA process using a holistic approach, FHWA has defined a feasible and prudent alternative as one that "avoids using Section 4(f) property [like a historic bridge] and does not cause other severe problems of a magnitude that outweighs the importance of protecting the Section 4(f) property. In assessing the importance of protecting the Section 4(f) property, it is appropriate to consider the relative value of the resource to the preservation goals of the statute [23 U.S.C. 138 and 49 U.S.C. 303 and known as Section 4(f)]." Through codification (CFR 774.17(h)(1-5)), which at this writing is in the comment phase, FHWA provides six instances of when an alternative is not feasible and prudent:

1. It cannot be built as a matter of sound engineering judgment;
2. It compromises the project to a degree that it is unreasonable to proceed with the project in light of its stated purpose and need;
3. It results in severe safety or operational problems;
4. After reasonable mitigation, it causes severe impacts or disruptions to other resources, groups, communities or the environment;
5. Extraordinary initial and/or life cycle costs; and/or
6. Causes unique problems or other factors."

### 2.7.1.2 State

Historical resources are considered under CEQA and Public Resource Code (PRC) Section 5024.1, which established the California Register of Historic Places (CRHR). PRC Section 5024 requires state agencies to identify and protect state-owned resources that meet NRHP listing criteria. It further specifically requires Caltrans to inventory state-owned structures in its rights-of-way. Sections 5024(f) and 5024.5 require state agencies to provide notice to and consult with the SHPO before altering, transferring, relocating, or demolishing state-owned historical resources that are listed on or are eligible for inclusion in the NRHP or are registered or eligible for registration as California Historical Landmarks.

#### *California Environmental Quality Act, '21084.1: "Historical Resource; Substantial Adverse Change"* [14]

Historical resources are recognized as part of the environment under CEQA and must be given consideration in the CEQA process [PRC § 21002(b), 21083.2, and 21084.1]. For the purposes of CEQA, a "historical resource" includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural periodicals of California [PRC 5020.1(j)] or resources that is listed in or determined to be eligible for listing in the CRHR or included in a local register of historical resources. The criteria that are used for determining historical significance for the purposes of CEQA are the CRHR, located at Pub. Res. Code §5024.1, Title 14 Code of California Regulations (CCR), Section 4850 et seq.

The term "cultural resources" is used in this document to refer to all historical and archaeological resources, regardless of the property's significance. A "historic property" refers to properties (buildings, structures, sites, objects, districts, and landscapes) that are determined eligible for or listed on the NRHP, pursuant to the CFR, whereas a "historical resource" refers to properties that are listed on the CRHR, pursuant to the CCR. Applicable laws and regulations dealing with cultural resources are described below.

#### *California Health and Safety Code, Section 7052*

Section 7052 of the California Health and Safety Code establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives[15].

[14] California Resources Agency. 11 December 2003. California Environmental Quality Act, Chapter 2.6, '21084.1: "Historical Resource; Substantial Adverse Change." Available at: http://ceres.ca.gov/ceqa/stat/Ch_2-6.html.
[15] State of California. *California Health and Safety Code, Section 7052.* Available at: http://caselaw.lp.findlaw.com/cacodes/hsc/7050.5-7055.html.

### *California Penal Code, Section 622.5*

Section 622.5 of the California Penal Code establishes a misdemeanor penalty for injuring or destroying objects of historical or archaeological interest located on public or private lands, but specifically excludes the landowner.[16]

#### *California Public Resources Code, Section 5097.5*

Section 5097.5 of the California PRC establishes a misdemeanor penalty for the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands.[17]

### *California Register of Historical Resources (CRHR)*

In 1992, the California Legislature established the CRHR. The CRHR is used as a guide by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The CRHR, as instituted by the California PRC, automatically includes all California properties already listed in the NRHP and those formally determined to be eligible for the NRHP (Categories 1 and 2 in the State Inventory of Historical Resources), as well as specific listings of State Historical Landmarks and State Points of Historical Interest. The CRHR also may include various other types of historical resources that meet the criteria for eligibility, including the following:

- Individual historic resources;
- Resources that contribute to a historic district; and
- Resources identified as significant in historic resource surveys;

Resources with a significance rating of Category 3 through Category 5 in the State Inventory (Categories 3 and 4 refer to potential eligibility for the NRHP; Category 5 indicates a property with local significance).

A property must meet at least one of the following criteria to be eligible for inclusion in the CRHR:

- It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- It is associated with the lives of persons important in our past.

[16] State of California. *California Penal Code, Section 622.5.* Available at: http://www.leginfo.ca.gov/calaw.html
[17] State of California. *California Public Resources Code, Section 5097.5.* Available at: http://www.leginfo.ca.gov/cgi-bin/waisgate?WAISdocID=60334228069+12+0+0&WAISaction=retrieve.

- It 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.
- It has yielded, or may be likely to yield, information important in prehistory or history.

### *Evaluation of Resources Less than 50 Years Old*

The CRHP follows the lead of the NRHP in utilizing the 50-year threshold. A resource is usually considered for its historical significance after it reaches the age of 50 years. This threshold is not absolute; it was chosen as a reasonable span of time after which a professional evaluation of historical value/importance can be made. It has been determined that previously identified archaeological sites that occur on site are not eligible for inclusion under the CRHR[18].

### *State Historic Resources Commission and the Office of Historic Preservation*

In accordance with state law (California PRC Section 5020.4), the primary responsibility of the State Historic Resources Commission (SHRC) is to review applications for listing historic and archaeological resources on the NRHP, the CRHR, and the California Historical Landmarks and California Points of Historical Interest registration programs. The SHRC is also charged with the following responsibilities:

- Conduct a statewide inventory of historical resources and maintain comprehensive records of these resources;
- Develop and adopt criteria for the rehabilitation of historic structures;
- Establish policies and guidelines for a comprehensive statewide historical resources plan;
- Submit an annual report to the Director of the California DPR and the state legislature giving an account of its activities, identifying unattained goals of plans and programs, and recommending needed legislation for the support of these programs;
- Consult with and consider the recommendations of public agencies, civic groups, and citizens interested in historic preservation; and
- Develop criteria and procedures based on public hearings and active public participation for the selection of projects to be funded through the National Historic Preservation Fund and other federal and state grants-in-aid programs.

The Office of Historic Preservation (OHP) is the governmental agency primarily responsible for the statewide administration of the historic preservation program in California. The chief administrative officer for the OHP is the SHPO. The SHPO is also the executive secretary of the SHRC. The mission of the OHP and the SHRC, in partnership with the people of California and governmental agencies, is to preserve and enhance California's irreplaceable historic heritage as

[18] Office of Historic Preservation. 1992. *California Register of Historical Resources.* Available at: http://ohp.parks.ca.gov/?page_id=21238.

a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enriched for present and future generations[19].

The OHP is responsible for carrying out its mission by meeting the following goals:

- Identifying, evaluating, and registering historic properties;
- Ensuring compliance with federal and state regulatory obligations;
- Cooperating with traditional preservation partners while building new alliances with other community organizations and public agencies;
- Encouraging the adoption of economic incentives programs designed to benefit property owners; and
- Encouraging economic revitalization by promoting a historic preservation ethic through preservation education and public awareness, and, most significantly, by demonstrating leadership and stewardship for historic preservation in California.

#### 2.7.1.3 Local

##### *Southern California Association of Governments*

SCAG's Growth Management Chapter (GMC) has instituted policies regarding the protection of cultural resources. SCAG GMC Policy No. 3.21 "encourages the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites."[20]

##### *City of Los Angeles*

The proposed project area falls under the jurisdiction of the City and is considered to be a "community" within Los Angeles. The goal of the City's General Plan Conservation Element is to "protect the City's archaeological and paleontological resources for historical, cultural, research and/or educational purposes" and to protect important cultural and historical sites and resources for historical, cultural, research, and community educational purposes.[21] Therefore, the City has devoted three sections to the policy, goals, and measures designed for the protection and conservation of cultural resources. Some of the measures developed for the protection of cultural resources in Los Angeles include:

[19] Office of Historic Preservation. 12 June 2002. "About OHP." Available at: http://ohp.parks.ca.gov/default.asp?page_id=1066.
[20] Southern California Association of Governments. 2001. *SCAG Growth Management Chapter (GMC) Policy No.3.21*. Contact: 818 West Seventh Street, 12th Floor Los Angeles, CA 90017-3435.
[21] City of Los Angeles. September 2001. City of Los Angeles, General Plan, Conservation Element: Section 3 Archaeological and Paleontological, Section 4: Conservation, Section 5 Cultural and Historical. Available at: http://www.ci.la.ca.us/PLN/Cwd/GnlPln/ConsvElt.pdf.

City of Los Angeles Cultural Heritage Commission (CHC)

The City established the CHC in 1962 to identify and protect architectural, historical, and cultural buildings, structures, and sites important to Los Angeles' history and cultural heritage. The CHC makes recommendations for designation of Historic-Cultural Monuments (HCM) and in 30 years the City has designated over 900 sites.

City of Los Angeles Cultural Heritage Ordinance

The City of Los Angeles Cultural Heritage Ordinance, first enacted in 1962 and updated in 2007, created a procedure for the designation of buildings and sites as HCMs in Los Angeles. The Cultural Heritage Ordinance establishes criteria for designation; these criteria are contained in the definition of a Monument in the Ordinance[23]. A historical or cultural monument is any site (including significant trees or other plant life located thereon), building, or structure of particular historical or cultural significance to the City, such as historic structures or sites:

- In which the broad cultural, political, economic, or social history of the nation, state, or community is reflected or exemplified; or
- Which are identified with historic personages or with important events in the main currents of national, state, or local history; or
- Which embody the distinguishing characteristics of an architectural-type specimen, inherently valuable for a study of a period, style, or method of construction; or
- Which are a notable work of a master builder, designer, or architect whose individual genius influenced his or her age.

A proposed resource may be eligible for designation if it meets at least one of the criteria above.

Historic Preservation Overlay Zones (HPOZ)

The Los Angeles Municipal Code (LAMC) Section 12.20.3 was adopted in 1979 and amended in 2001. It contains procedures for the designation and protection of areas that have structures, natural features, or sites of historic, architectural, cultural, or aesthetic significance. Fourteen areas of the city are classified as HPOZs, and 12 other areas are under study. HPOZ areas contain significant examples of architectural styles characteristic of different periods in the city's history. HPOZs vary in size and may consist of a few blocks or a few square miles in area.[24]

[23] City of Los Angeles' Cultural Heritage Ordinance (Ord. No. 178,402, Eff. 4-2-07)
[24] City of Los Angeles. September 2001. City of Los Angeles, General Plan, Conservation Element: Section 3 Archaeological and Paleontological, Section 4 Conservation, and Section 5 Cultural and Historical. Available at: http://www.ci.la.ca.us/PLN/Cwd/GnlPln/ConsvElt.pdf.

## 2.7.2 Affected Environment

A Historic Property Survey Report (HPSR) was prepared for the project (URS Corporation and JRP Historical Consulting, 2006) that summarized the findings of the Historic Resources Evaluation Report (HRER). The HRER identified potential historic properties within the proposed project's Area of Potential Effect (APE) and evaluated the eligibility of those properties for inclusion in the NRHP and the CRHR.

JRP Historical Consulting also prepared a Finding of Effect (FOE) that outlined whether or not the proposed project would have an adverse effect on any historic properties located in the APE. Subsequent to the preparation of the initial FOE, the proposed project has undergone additional design modifications to minimize the overall impacts to the North Spring Street Viaduct. Therefore, Galvin Preservation Associates Inc. prepared a supplemental FOE to address the project changes and update the findings as they pertain to effects on the North Spring Street Viaduct.

The HPSR, HRER, and FOE were prepared in compliance with Section 106 of the NHPA and applicable CEQA guidelines[25]. The reports were prepared in accordance with the PA among the FHWA, the ACHP, the SHPO, and Caltrans regarding compliance with Section 106 of the NHPA, as it pertains to the administration of the federal-aid highway program in California (Section 106 PA), effective January 1, 2004[26]. The HPSR identified any historic and archaeological resources likely to be affected by the proposed project, evaluated the eligibility of these resources for listing within the NRHP and CRHR, and the FOE applied the Criteria of Adverse Effects (36 CFR 800.5) to eligible properties within the APE.[27]

### 2.7.2.1 Environmental Setting

#### *Project Area History*

Spanish Exploration, Mexican Settlement, and American Occupancy

Exploration of California first occurred in 1540 when a land expedition, under command of Hernando de Alarcon, traversed inland along the Colorado River in an attempt to meet the party of Francisco Vasquez de Coronado. The first documented description of Los Angeles County comes from Juan Rodriguez Cabrillo in 1542. Apparently, his ship made land fall at what is today San Pedro, taking on fresh water and other supplies. He did not explore the area, instead he continued his journey.[28]

[25] Historic Property Survey Report, URS Corporation and JRP Historical Consulting, July 2006
[26] Ibid.
[27] Ibid.
[28] Beck, Warren A. and Ynez D. Haase. 1974. *Historical Atlas of California*, University of Oklahoma Text, Norman.

Originally, the city of Los Angeles was founded by 44 settlers from the present-day Mexican states of Sonora and Sinaloa on September 4, 1781. While Los Angeles was founded under the flag of colonial Spain, of the original 44 settlers, or *pobladores*, only two were from Spain. Like most Mexicans today, the majority of the settlers were mestizos, racially mixed people of multiethnic origins, mainly Indian, African, and Spanish.

From 1781 to 1821, Los Angeles was under the flag of the Spanish Empire. It was during this period that the *pobladores* constructed Los Angeles' first streets, adobe buildings and the central Plaza. By the time of the Mexican independence from Spain in 1821, Los Angeles was already the largest population center in Alta California. It served as a local and regional economic, political, social, cultural, and religious center for the area between Santa Buenaventura and San Juan Capistrano. From as early as 1818, prominent Mexicans such as Francisco Avila, Jose Antonio Carrillo, Juan Bandini and Francisco Sepúlveda maintained second homes next to the present day Olvera Street Plaza, which included the El Pueblo church.

Between 1821 and 1848, Los Angeles was part of the Republic of Mexico. Particularly significant during this period was the development of a California-Mexican regional identity and cultural expression based upon the spread of the ranchos or cattle ranches. It was also during this period that the leading Mexican Angelenos charted out some of the city's future. Names like Olvera, Pico, Carrillo, Sepúlveda and Lugo, which mark our present-day streets and boulevards, serve as daily reminders of the leadership and vision of the early Angelenos. The Los Angeles Pueblo, together with its Plaza, was the heart of the Mexican community. It was a place where the community engaged in a dynamic economy based on cattle raising and a place where traditional culture, secular and religious fiestas were characterized by a collective significance unifying the pueblo and rancho, reaffirming traditional loyalties, and defining Los Angeles society as a whole.

In 1846, war broke out between Mexico and the United States and California was invaded by United States forces. The Los Angeles Plaza area became the center of widespread Mexican opposition to the invasion. Following the acquisition of California by the United States in 1848, Los Angeles remained a predominantly Mexican city for the next three decades in terms of population and the use of the Spanish language.

The citizens of Los Angeles officially incorporated their city under the new state in 1850, the same year the federal census enumerated a population of 1,610. Los Angeles at the time was a quiet agricultural town with little infrastructure to support industry. Vineyards, orchards, and cattle and sheep ranches were commonly found in Los Angeles, and more than 90 percent of the city’s area was rural, with the center of town confined to a relatively dense core. The map of the city prepared by Lt. E.O.C. Ord depicts the central area of the city, and shows the area

immediately south of the project APE as composed of agricultural fields; the map does not extend to the project area.

This central core did not extend for more than two miles from the city center before 1885, and the densest urban concentration was located within a mile, as shown on the 1871 map (*see Figure 2-21*). The town was typified by narrow streets, but as Los Angeles grew, the citizens supported construction of relatively wide roadways. Other items of infrastructure became important to the growth of Los Angeles, such as reliable water supply and adequate sanitation. This reliable water system became known as the Zanja Madre, the first aqueduct system in Los Angeles that carried water throughout the early pueblo from the Los Angeles River. During the first decades of Los Angeles' existence as an American city, it retained its Spanish and Mexican character and adobe style architecture dominated the small town.

While remaining primarily agricultural, the predominant market crop exported from Los Angeles changed from cattle to citrus in the 1870s as a byproduct of railroad development. The transcontinental railroad opened California to the nation's markets in 1869. By 1876 the Southern Pacific Railroad Company (SPRR) linked Los Angeles to the rest of the state and nation with a line running over the Tehachapi Mountains, providing an outlet for the newly developing citrus industry to new markets. The SPRR completed a second, more direct line into the Los Angeles basin the next year. The Atchison Topeka and Santa Fe Railroad reached Los Angeles over a southern route in 1885.

The ensuing competition between rail lines brought on a rate war and cheap fares, which attracted a flood of mid-westerners eager to obtain land and experience the healthy climate. This influx of a new, middle class, largely Anglo-American population changed the predominately rural area into a growing commercial, industrial, and technologically developing urban center surrounded by suburban development. Federal census statistics of the time starkly illustrate the rapid growth experienced by the city and county[29].

With this new growth came improvements to the city's infrastructure. In the 1880s, the citizens dedicated over 200 miles of new streets in Los Angeles. Residential development began to reflect an American pattern of placement of buildings and streets. Recently-arrived residents built neighborhoods in the city and began to spread into the surrounding areas. The first subdivision in Los Angeles was East Los Angeles, later called Lincoln Heights.

Subdivided in 1873, by Dr. John Strolher Griffin, his nephew, Hancock Johnston, and John Gates Downey, former state governor, East Los Angeles did not really develop until after a

[29] Fogelson, *The Fragmented Metropolis*, 78; US Census Bureau data for Los Angeles city and county, as cited in Los Angeles Almanac, www.losangelesalmanac.com/topics/Population/po02.htm, accessed June 30, 2002.

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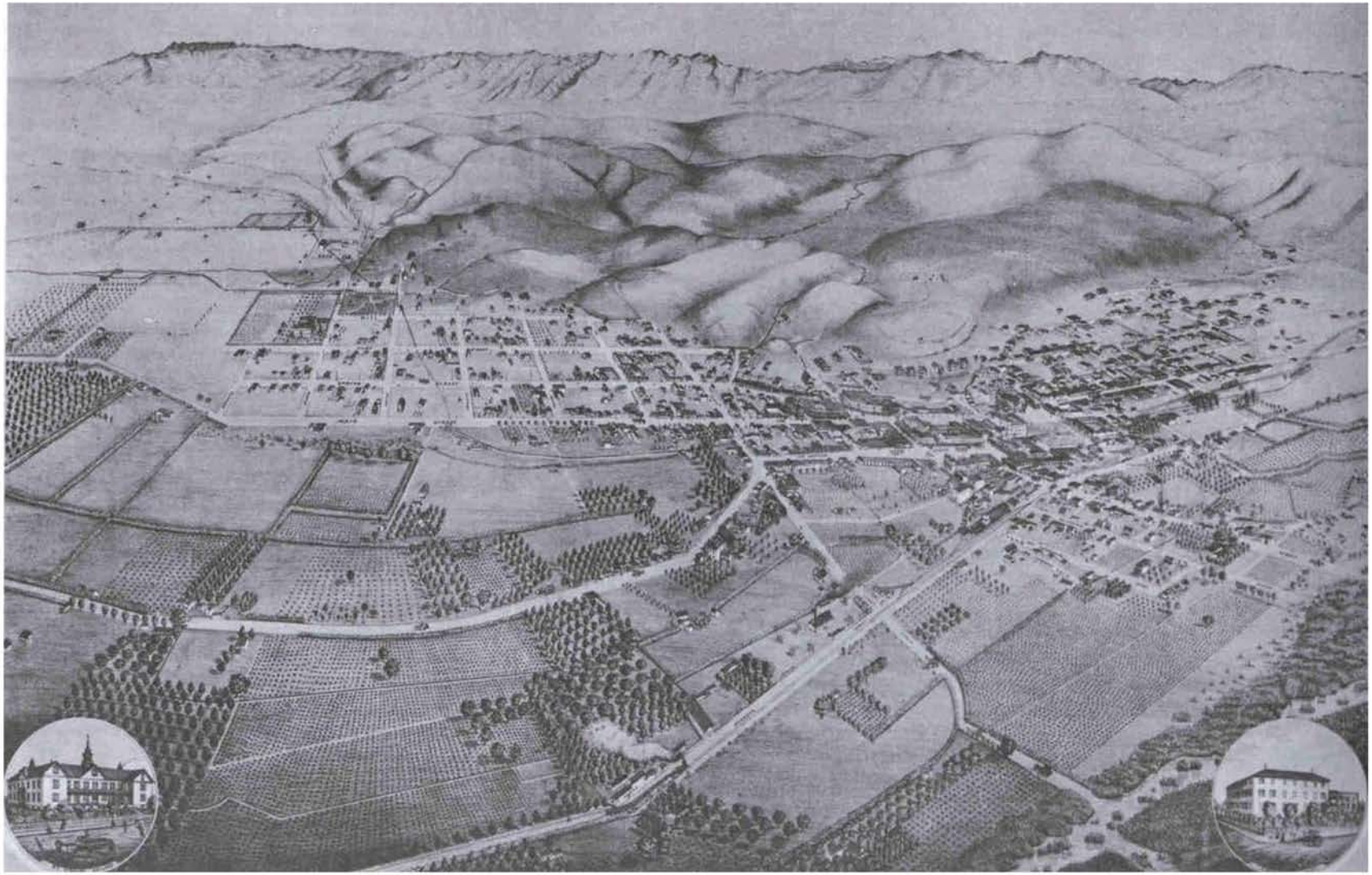

EARLY VIEW OF LOS ANGELES, CIRCA 1871

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-21

reliable transportation route across the Los Angeles River was established[30]. Griffin, a physician, real estate speculator, and rancher, purchased land on the east side of the river from the City center in 1863 at 50 cents per acre. Once he secured a water source for the land, he and Johnston built homes on their property. *Figure 2-22* shows the early plat of East Los Angeles.

In 1874, Griffin, Johnston, and Downey advertised 35 acres of 650-foot by 100-foot lots at costs ranging from $100 to $150; they advertised "Splendid Homesteads for All!"[31] By the 1880s, maps show residential development on the eastern side of the river was well established in two areas, Boyle Heights and East Los Angeles. The pace of development in this area was sluggish and remained largely rural until the real estate boom of 1880s[32]. Until the arrival of the interurban electric railway in the 1890s and its expansion in the early 1900s, the areas east of the river continued to be considered "out in the country" by residents west of the river.

These outlying areas were linked to Los Angeles by wooden bridges that regularly washed away in the winter. It was not until the inter-urban railways provided reliable transportation to and from the industrial areas, where many of its residents worked, when Lincoln Heights became more popular with industrial and commercial workers.

After 1885, the rising demand for property, resulting from population growth and arrival of industry and the transcontinental railroads, fostered the suburban development of communities like Lincoln Heights which forever changed the landscape of Los Angeles. Lincoln Heights in many ways represented the beginning of suburban development in Los Angeles[33]. By 1910, Lincoln Heights was nearly fully developed and demonstrated architectural types similar to many other communities in Southern California. Residential construction consisted of mainly wood-frame single-family residences, many of which had sheds and other outbuildings set on large lots with more modest dwellings lining the periphery of the community[34].

Initially settled by citizens of means, Lincoln Heights had grand residences in the center of the community, with large examples of Queen Anne and Colonial Revival style buildings. Two urban open spaces were included in Lincoln Heights and the largest of these, Lincoln Park, was developed early in the history of the neighborhood. What is now the Downey Recreation Center, located adjacent to the east end of the project APE, was at this time city land and boasted open playing grounds and fields from as early as the 1890s[35].

[30] Leslie Heumann, "Lincoln Heights History" from a brochure produced by the Los Angeles Conservancy and the Lincoln Heights Neighborhood and Preservation Association, 1999, unnumbered.
[31] Heumann, "Lincoln Heights History," 1999, unnumbered.
[32] Sanborn Fire Insurance Maps, "Los Angeles," 1888, 1894, 1906.
[33] Fogelson. *The Fragmented Metropolis*, 141.
[34] Sanborn Fire Insurance Maps. 1906.
[35] Sanborn Fire Insurance Maps, 1888, 1894.

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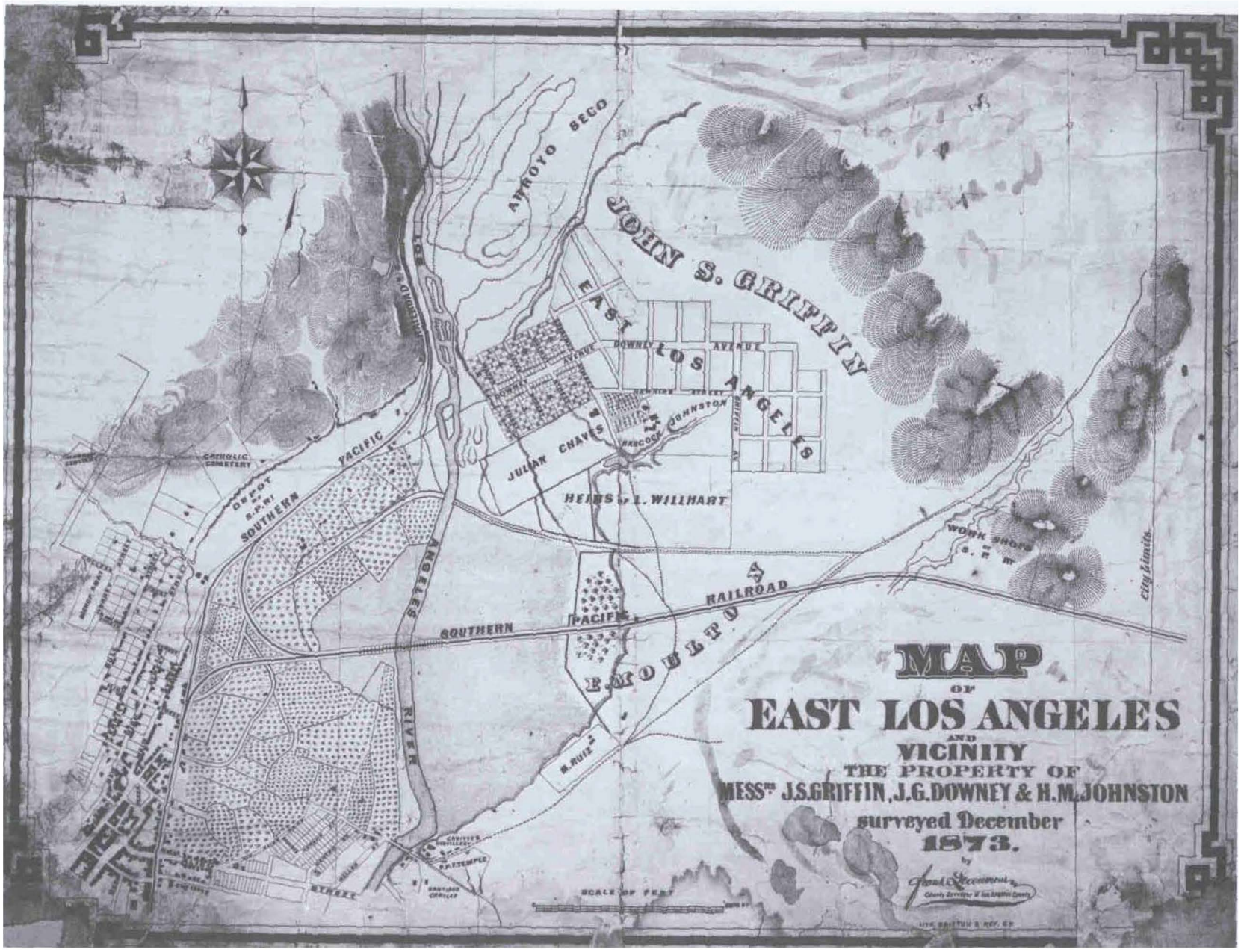


MAP OF EAST LOS ANGELES, CIRCA 1871

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-22

As the neighborhood became attractive to immigrants and blue-collar workers, smaller houses and bungalows became more common. Workers were able to find housing close to the industries on the west side of the river and in other areas well to the south of the project APE.

Regular Flood Control and Bridges

Regular flooding of the Los Angeles River presented problems for those residents who lived in East Los Angeles, and although the electric trolleys provided a reliable means of transportation, flood flows often washed out viaducts and bridges. Before the U.S. Army Corps of Engineers (ACOE) channelized the Los Angeles River in the 1950s, the city experienced 60 substantial floods, including the circa 1886 flood shown in *Figure 2-23.* A combination of factors created dangerous flood zones around the river before it was controlled; and, development along the banks of the river exacerbated the flood danger. A major flood in 1914 severely damaged the county and city infrastructure, with a total of 35 bridges washed out; the railroads were forced to suspend their operations.[36]

In response to the continual threat of floods, Los Angeles County created a flood control district in 1914 that initiated several decades of efforts to contain the river. Over the next decades, successive floods added to the store of information required to design features such as levees, check dams, and channel linings. The ACOE was ordered by Congress to become involved in the 1930s, and the ACOE worked with the flood control district to provide the channel protection and flood control works that protect the city and portions of the project APE today.[37]

During the early decades of the 20th century other infrastructure improvements were made. The City constructed many famous concrete bridges over the Los Angeles River during this period, some of which connected East Los Angeles to other City areas. Pasadena and Downey Avenue (later North Spring Street) were two of the arterial roadways that connected East Los Angeles and the city in the late 1880s.[38] Wooden bridges and iron viaducts carried foot and wagon traffic over the river.

By the early 1900s, Pasadena and North Broadway merged to cross on a single viaduct that ran over the river and skirted the northern perimeter of the rail yard located just west of the project APE. In 1910, the City constructed the oldest of the concrete bridges, the Buena Vista Viaduct, now known as North Broadway Bridge. By that time, it appears that what is now North Spring Street ran through an industrial district and crossed the river on a steel viaduct.

[36] John Russell McCarthy, "A Little River that Caused So Much Trouble," *California History Nugget*, Volume VII, No. 3, October 1939, 90-91.
[37] Gumprecht, Blake. *The Los Angeles River: Its Life, Death and Possible Rebirth*, 131; Anthony F. Turhollow, *A History of the Los Angeles District, U.S. Army Corps of Engineers, 1898-1965*. (U.S. Army Corps of Engineers District, Los Angeles, 1975), see Chapter V, "From Shore Protection to Flood Control," 144-209. The map on page 172 shows that channelization in the area of the APE had been completed by September 1956.
[38] Sanborn Fire Insurance Maps, "Los Angeles," 1888, 1894, 1906 and Map of Los Angeles Electric Car Routes, 1933.

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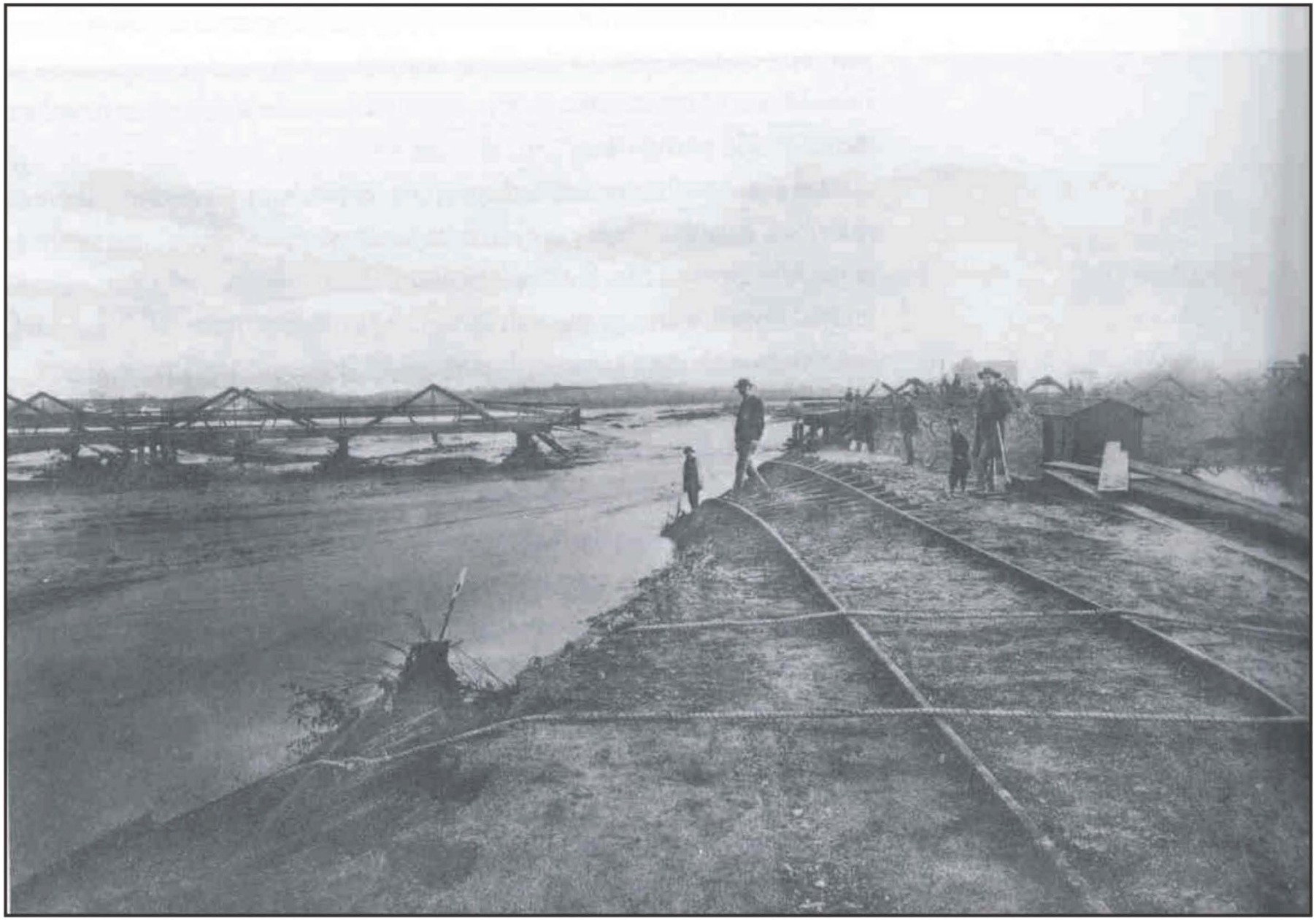

DOWNEY AVENUE BRIDGE WASHED OUT AFTER A FLOOD, CIRCA 1886

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-23

The City built the current North Spring Street Viaduct in 1928 (see *Figure 2-24)*. The North Spring Street Viaduct was designed in an arched style complementary to the older Buena Vista Viaduct located just upstream.[39] Several more concrete bridges were constructed south of the North Spring Street Viaduct, and their combined effect was to provide a reliable connection from East Los Angeles to the city's downtown area.

The Arrival of the Railroad and Industrial Development in Los Angeles

As Los Angeles continued to expand, industrial businesses began to seek out cheaper parcels in outlying or under-utilized areas, a common pattern of urban planning popular in late 19th century characterized by land use segregation. In Los Angeles, those parcels were located near the Los Angeles River and areas in close proximity to the railroad.[40]

The railroad built its line south from San Francisco along the eastern edge of the San Fernando Valley parallel to the east bank of the Los Angeles River until it crossed the river upstream from its confluence with the Arroyo Seco. The SPRR built a rail yard and shops south of the Elysian Park in "the Cornfield"; this pattern of development is depicted on *Figure 2-25*. Other large rail yards were built on the opposite side of the river near Mission Street, and the largest yards were near Alameda Street, now part of the Alameda Corridor. As the City began to segregate land uses, industrial districts developed around the rail yards because they provided easy access to shipping.

The industrial district located within the project APE developed after the arrival of the railroad. Originally part of a rural agricultural district south of what was known as the Cornfield, this area developed into a small manufacturing district once the SPRR built its freight depot and switching yard. The SPRR arrived in Los Angeles in 1876, after the City gave the SPRR a commanding position over shipping in and out of Los Angeles, including ownership of the Los Angeles & San Pedro Railroad.[41]

This area was characterized by dwellings and tenements when the SPRR first arrived, with a zanja *(open ditch)* and an iron viaduct that carried wagon, electric railroad, and foot traffic over the Los Angeles River. Slowly, the dwellings and tenements disappeared from this area and were replaced with manufacturing, warehousing, and other industrial companies. The zanja that ran through the area was removed by 1894.

[39] Stephen D. Mikesell, *Historic Highway Bridges of California*, produced by the California Department of Transportation, 1990, 98.
[40] Fogelson, *The Fragmented Metropolis*, 138.
[41] Myra L. Frank, "EIR for the Alameda Corridor," prepared for Alameda Corridor Transportation Authority, August 1992, page 1-14.

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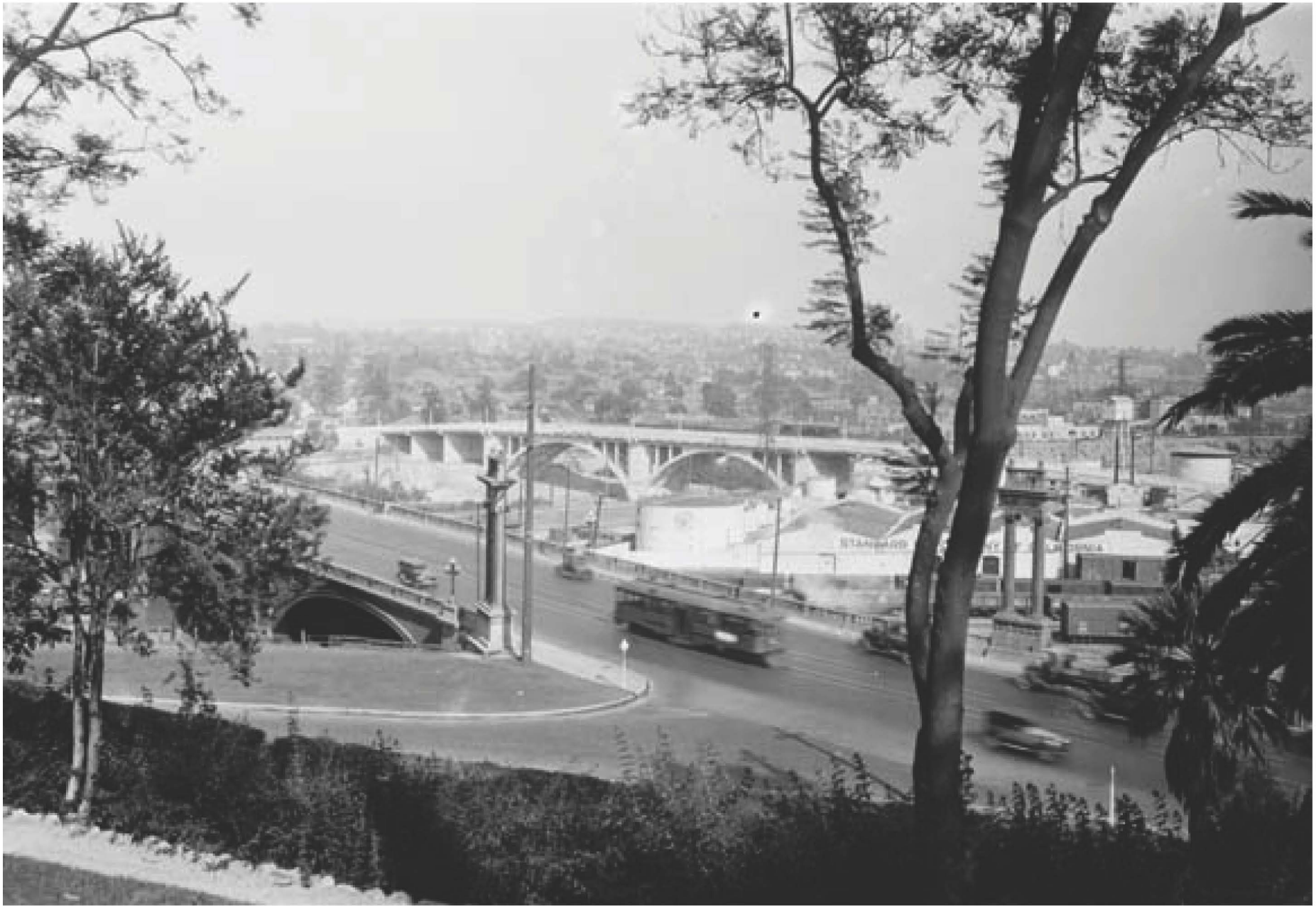

VIEW ACROSS BROADWAY TO THE SPRING STREET BRIDGE, CIRCA LATE 1920S

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-24

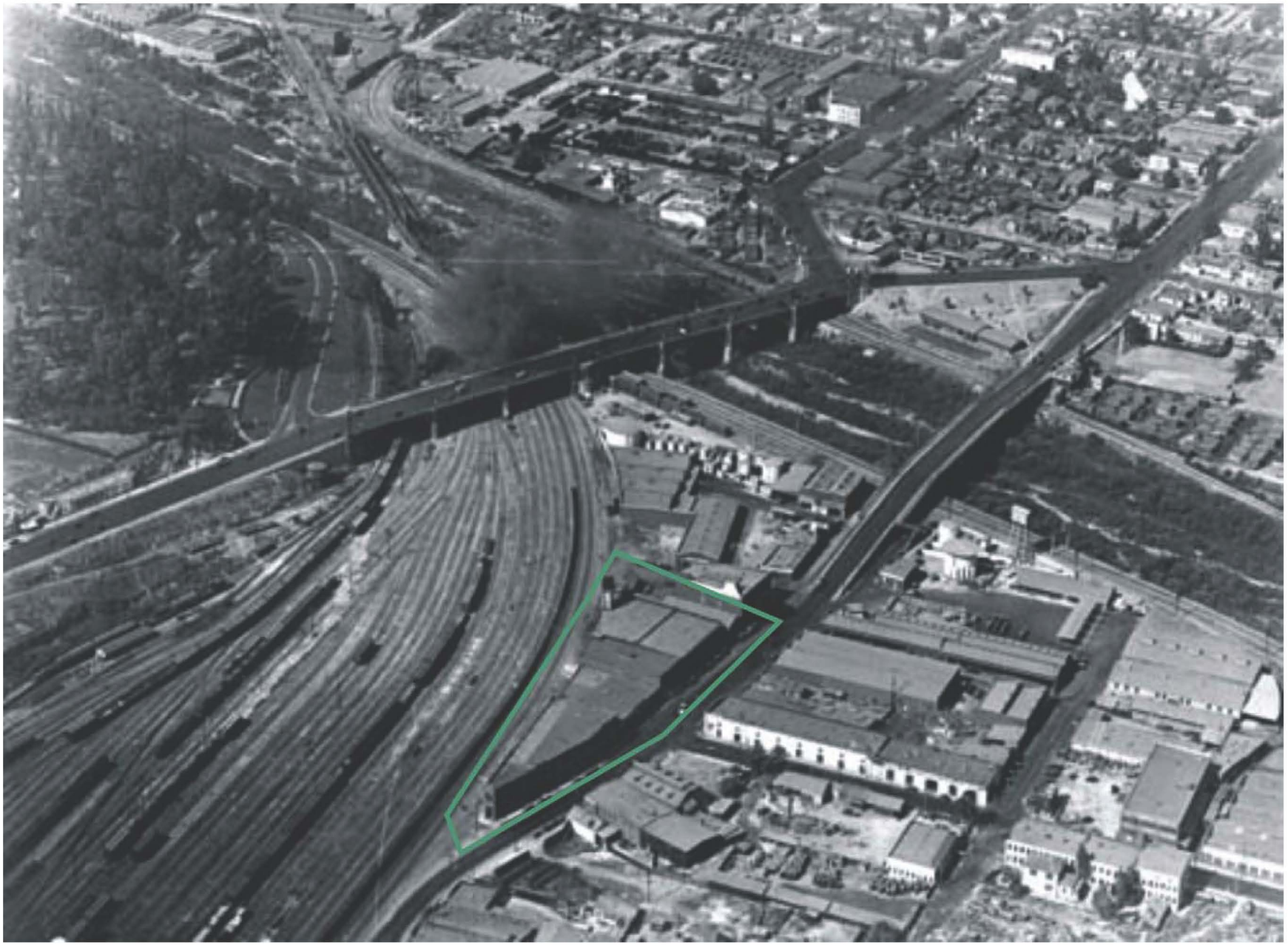

PHOTO DEPICTING THE APE, LOCATED IN THE INDUSTRIAL DISTRICT, CA, CIRCA 1928

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-25

The earliest industries in the district were the Mesnager Winery and Distillery, Los Angeles Wool Pulling Factory, and E.C. Neidt's Soap Works, all established by 1888.[42] By 1894, the New York Suspender Factory, California Ice Company, Los Angeles Electric Railway Company, Puente's Oil Company Plant, Standard Oil, and George Hasson Fruit Packing Company constructed buildings in the district that contributed to the growth of the district.[43] These industries reflected the wide range of early businesses in Los Angeles, such as a garment industry, viticulture and distilleries, orchards, and livestock.

Around the country, rivers provided a means to transport industrial goods, supply a source of energy, and provide a convenient way to dispose of industrial waste. The flow of the Los Angeles River, however, was too small and irregular to allow any useful pattern of navigation. By the time industry established itself in Los Angeles, the river had been almost entirely drained of its normal surface flow, so it was never fully developed as a source of power.[44] The normal lack of water in the river also prevented it from becoming a dumping ground for waste because there was too little water to wash effluents downstream or to dilute them. In Los Angeles, industrial development occurred next to the river because that is where the railroads were built.

Industry in Los Angeles at first grew slowly, but it was also spurred by the region's expanding population. Early manufacturing provided for local needs and included soap, confections, as well as other household goods. These types of businesses were located in the small district located along North Spring Street in the vicinity of the project APE. The oldest buildings within the APE date from this expansion, and many of these buildings are located on what was called "Junction Block," which was almost completely developed by the early 1900s. Junction Block is visible within the circle on *Figure 2-26,* and an example of one of the buildings on the block can be seen on *Figure 2-27.* With the growth of Los Angeles as a manufacturing city, economic leadership shifted from San Francisco, which was the largest manufacturing city in California at the time.

Expansion of Los Angeles and Decentralization of the City

Urbanization had a profound impact on the landscape of Los Angeles in the 1920s and 1930s. Slowly, the rural nature of Los Angeles faded and a steady rise in immigration and business created a demand for residential and commercial property.[45]

Agricultural land was used to accommodate these new suburbs. Viticulture and agricultural related businesses departed from the industrial district within and near the project APE and were replaced with heavier industries such as machining, metal fabrication, oil processing, and distribution warehouses; these changes can be seen in *Figure 2-25*.

[42] Sanborn Fire Insurance Maps, "Los Angeles," 1888, 1894.
[43] Sanborn Fire Insurance Maps, "Los Angeles," 1888, 1894.
[44] Blake Gumprecht. *The Los Angeles River: Its Life, Death and Possible Rebirth*, (Baltimore and London: John Hopkins University Press, 1999), 111.
[45] Fogelson, *The Fragmented Metropolis*, 139

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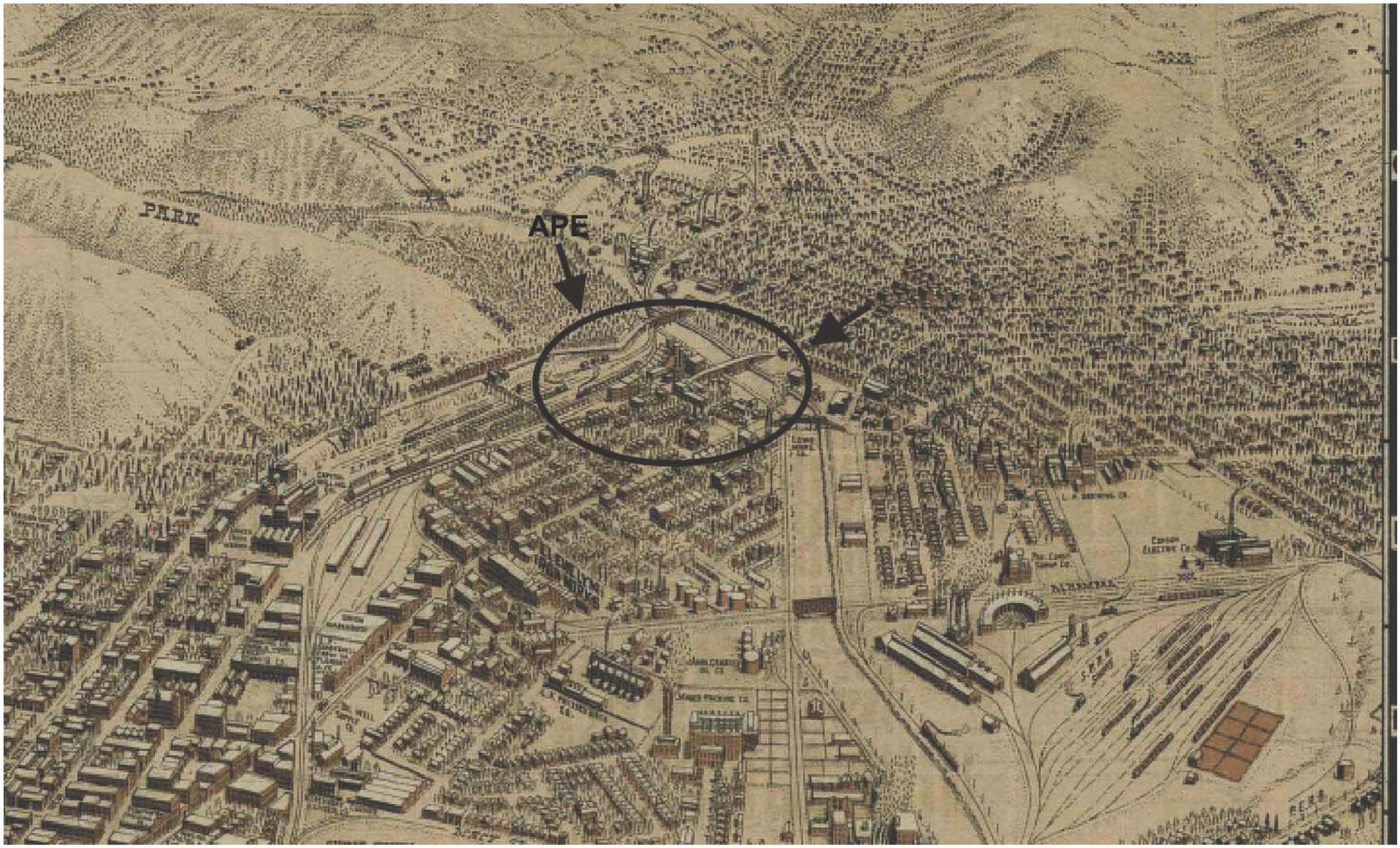


INDUSTRIAL DISTRICT WHERE THE APE IS LOCATED, CIRCA 1909

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-26

COMMERCIAL BUILDING ON JUNCTION BLOCK

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-27

As the new leader in manufacturing, Los Angeles was pushed into the forefront for relocation of several large industries. The aircraft industry relocated to southern California from the East Coast as early as the 1920s began to boom with the aid of government programs and the beginning of World War II. It became one of the principal industries that established large industrial complexes throughout Los Angeles, and encouraged the development of smaller companies that produced parts for the industry. The Goodyear Company and Ford both built large plants in Los Angeles after World War II. Fueled by ample labor, the wealth of capital in the region, and the mild climate, these conditions, along with countless other large industries, provided the necessary elements to set Los Angeles in the forefront of California industrial production.

Personal mobility and the triumph of the automobile was one of the largest factors in the continuing development of Los Angeles. Inter-urban electric railways were heavily used as early as 1910 and shared roadways with increasing numbers of automobiles.[46] As the automobile became the overwhelming choice for personal transportation, ridership of the railways declined and began to falter economically and led many businesses to leave downtown due to the traffic congestion and lack of parking. They began to avoid the downtown area and patronize outlying businesses. By 1920, Wilshire Boulevard had become a major six-lane thoroughfare, foreshadowing how important the network of roads in Los Angeles would become, as well as how automobiles would characterize Los Angeles.

The triumph of the automobile also facilitated the decentralization of industry and the urbanization and suburbanization of outlying areas. The County highway and City street system allowed merchants to move goods by truck, making them independent of the railroad for transportation. Suburbs grew rapidly because of widespread automobile ownership and remote, relatively inexpensive housing available to the work force. The expansion of utilities and infrastructure also made the decentralization of industry easier. Municipal and regional districts provided inexpensive water and power throughout the city. Suburban expansion provided a local labor force and new opportunities for industries to develop in outlying areas on less expensive land. Throughout the postwar years, the area within the project APE retained these two developmental themes: commercial and residential development east of the river and industrial uses west of the river.

City Beautiful Movement

The City Beautiful Movement was a progressive reform movement in North American architecture and urban planning that flourished in the 1890s and 1900s with the intent of using beautification and monumental architecture in cities to counteract the perceived moral decay and the poverty stricken urban environments of the time.

[46] Fogelson, *The Fragmented Metropolis: Los Angeles 1850-1930, 152.*

The City Beautiful Movement aimed at creating large parks (i.e., Central Park in New York) and monumental architecture. The particular architectural style of the movement borrowed heavily from the contemporary Beaux-Arts Movement, which emphasized the necessity of order, dignity and harmony. The movement also borrowed from classical monumental planning but differed from the true neoclassical style in that in the City Beautiful Movement, the classical idiom was adopted only partially, mixed with Beaux-Arts elements.

The development of the twenty-seven Los Angeles River bridges, including the North Spring Street Viaduct, occurred from 1909 to 1938, during the eras spanning the City Beautiful Movement. Therefore, the architectural styles of these bridges, including the North Spring Street Viaduct can be architecturally characterized as examples of the contemporary Beaux-Arts Movement.

The development of the Los Angeles River bridges were important, not only because they beautified Los Angeles by creating monumental design on a massive scale (even by today's standards), and later would become iconic symbols of Los Angeles, but because of the inherent necessity of the bridges themselves. As Los Angeles' population exploded and the automobile emerged, the bridges were part of an ambitious bridge construction program to accommodate increasing numbers of automobiles and alleviate traffic jams on the surface streets between automobiles and Red Cars.

#### 2.7.2.2 Research Methods

In accordance with regulations promulgated by the SHPO, properties within the architectural APE were researched, inspected in the field, recorded, and photographed. They are described in detail on the DPR 523 forms included as Exhibit B.4 of the HRER.[47] The project team, prior to undertaking field work, reviewed lists compiled in the NRHP, CRHR, California Historic Landmarks, California Points of Historic Interest, and Los Angeles HCMs to ascertain if any properties within the project APE were listed. None were listed in the national or state lists.

One resource, the North Spring Street Viaduct, was found eligible for listing on the NRHP, and two resources were found to be listed as Los Angeles HCMs. In addition, the investigators conducted general research, regarding the historic context for the subject resources, and site-specific research on each of the surveyed properties at the Los Angeles Public Library; Los Angeles Building and Safety Department; Shields Library at the University of California, Davis; and California State Library, Sacramento. Investigators also consulted the Caltrans Historic Bridge Survey, California Historic Resources Inventory, and City of Los Angeles Historic Cultural Monuments Inventory to determine if any properties had been previously surveyed or

[47] Historic Property Survey Report, URS Corporation and JRP Historical Consulting, July 2006

evaluated. As a part of the proposed project, and research conducted herein, contacts were made with individuals, interested parties, and organizations knowledgeable of the project area.[48]

#### 2.7.2.3 Historic Architectural APE

The project APE includes the North Spring Street Viaduct (Bridge No. 53C-0859); portions of North Spring Street east and west of the viaduct; the length of Aurora Street; an existing access road located along the east side of the buildings located on the west bank of the Los Angeles River; and a relatively small area located west of the viaduct that would include the extension of Wilhardt Street northward to connect to the existing Baker Street alignment (see *Figure 2-28*). The project APE also includes the portion of Baker Street that would be abandoned between the proposed Wilhardt Street extension and its existing intersection with North Spring Street.

The APE was established in consultation and approval from Caltrans, based upon the proposed project's features and the potential to affect buildings, structures, or objects on parcels adjoining the work area. Structures not included within the project APE were omitted because there is no potential for direct or indirect affects resulting from the proposed project. Early consultation with Caltrans District 7 was undertaken to define a narrow APE, which would accurately reflect the nature of the project and actual potential for effects (both indirect and direct) related to adjacent structures.

Caltrans' personnel approved the APE on February 14 and March 11, 2008. Where the project area would be contained within the existing North Spring Street right of way or curb lines, the APE is consistent with the existing right-of-way and does not include adjacent parcels.

The resources within the APE date back to the late nineteenth century. Historically, this area developed as an agricultural zone, but with the arrival of the railroad, the APE and surrounding area developed into a mixed commercial and industrial area west of the Los Angeles River, and a mixed commercial and residential area east of the river. Scattered among the older buildings in the vicinity of the North Spring Street Viaduct are examples of new construction that carry on the theme of industrial use in the area, particularly on the west side of the river.

Land use within the APE includes a small pocket of industrial buildings located west of the North Spring Street Viaduct, adjacent to the SPRR rail yard. Generally, this area on the west side of the Los Angeles River is composed of light industrial and commercial buildings and warehouses that were constructed beginning in the late nineteenth century in close proximity to the SPRR rail yard. Warehouses and small manufacturing companies dating from the late nineteenth century through the 1980s line both sides of North Spring Street, with scattered construction throughout the rest of the area. There are no cultural landscapes as defined by NRHP guidance located within the APE.

[48] Ibid.

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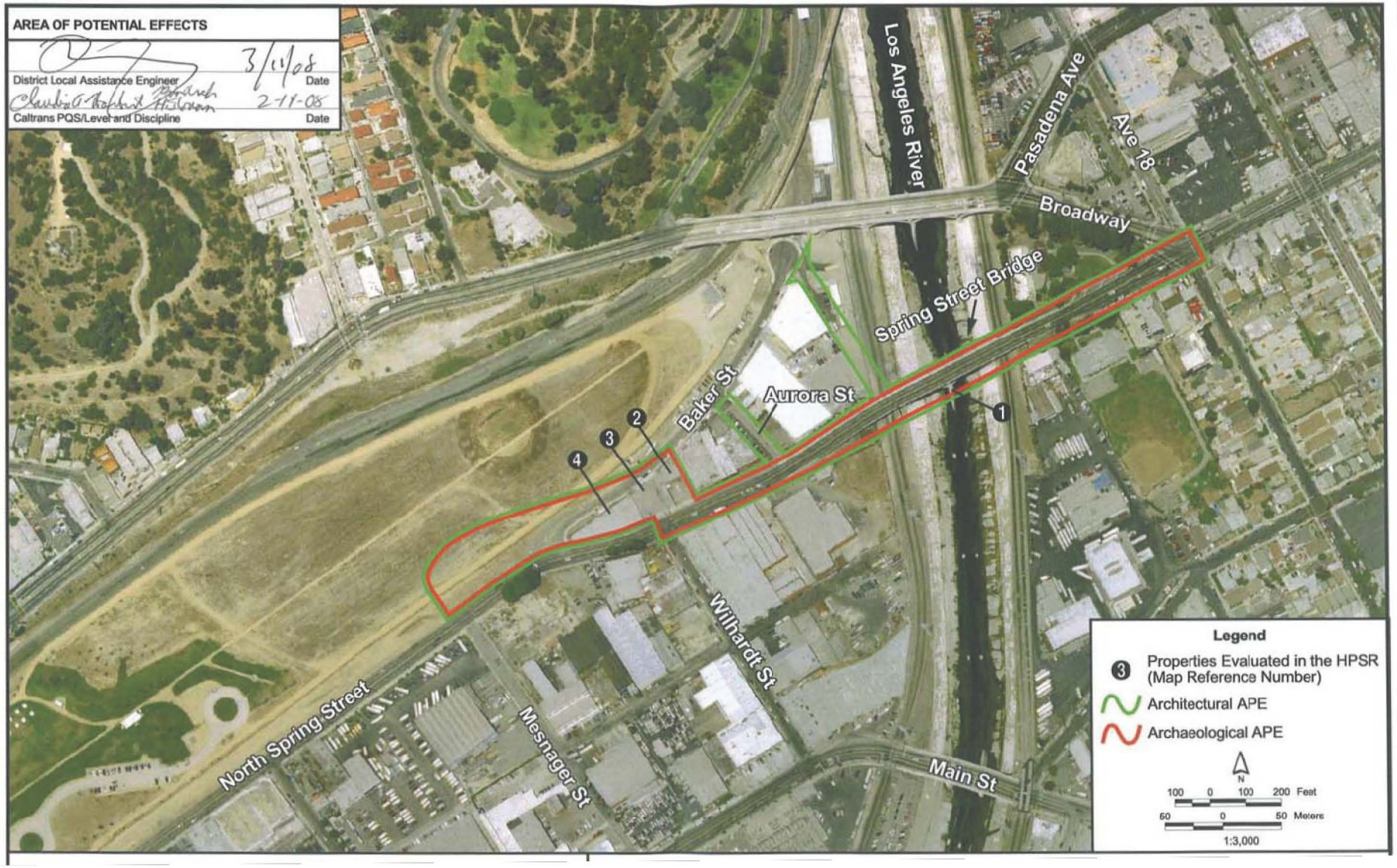


| | | |
|---|---|---|
| LA DPW ENGINEERING | AREA OF POTENTIAL EFFECT (APE) FOR ARCHAEOLOGICAL AND HISTORIC ARCHITECTURAL RESOURCES | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-28 |

### *Records Search Results*

The South Central Coastal Information Center (SCCIC) was contacted to identify historical properties in the APE. The results of the records search are shown below. The review of the list of California Points of Historic Interest (1992) revealed one listing, as shown in *Table 2-16*.

**Table 2-16 California Points of Historic Interest in the Project APE**

| California Points of Historical Interest | Description | Location | Affected by Project? |
|---|---|---|---|
| San Antonio Winery | Built in 1917, this group of historic buildings is the last of more than 100 producing wineries that once occupied the Los Angeles River Basin. | Lamar Street | No. Property is located outside the Project APE |

A review of the list of California Historical Landmarks (1990) revealed one listing, as shown in *Table 2-17*.

**Table 2-17 California Historical Landmarks in the Project APE**

| California Historic Landmarks (CHL) | Description | Location | Affected by Project? |
|---|---|---|---|
| CHL No. 655 (P-19-174919). | Portola Trail Campsite (No.1)," | Near the entrance to Elysian Park | No. Property is located outside the Project APE |

A review of the California Historic Resource Inventory showed 33 properties that were evaluated for historical significance. A review of the list of the Los Angeles HCMs revealed three properties are within the project APE.

- **No. 82.** This monument, listed as the "River Station Area/Southern Pacific Railroad," is defined as the area between North Broadway, North Spring Street, the Los Angeles River, and the Capitol Milling Company Building, and is now known as the LASHP. This area, declared a Los Angeles HCM in 1971, at one time contained many vestiges of 19th century railroading, including freight yards, warehouses, tracks, and cobblestone pavement. The APE includes a portion of this area.
- **No. 872.** This monument is known as the Raphael Junction Block Building (New York Suspender Factory-Ice Company) and is located at 1635 North Spring Street. It was designated a Los Angeles HCM in May 2007. This monument is located in the project APE
- **No. 900.** North Spring Street Viaduct, which is part of the proposed project, was listed as a Los Angeles HCM in January 2008. Built in 1928, the North Spring Street Viaduct was constructed by the City of Los Angeles BOE as part of the City Beautiful Movement and under the famed bridge building program of Merrill Butler, Engineer of Bridges and Structures. The North Spring Street Viaduct is part of a monumental bridge building program

dating from 1909 to 1944 that oversaw the construction of several bridges across the Los Angeles River. The viaduct is an example of the Beaux-Arts style. This monument is located in the project APE

A review of the list of Los Angeles HCMs revealed five properties within approximately 0.5 mile of the proposed project, as shown in *Table 2-18*:

**Table 2-18 City of Los Angeles HCMs within 0.5 Mile of Project APE**

| LACM Number | Description | Location | Affected by Project |
|---|---|---|---|
| No. 156. (P-19-156358). | Fire Station No. 1 | 2230 Pasadena Avenue | No. Property is located outside the Project APE |
| No. 211 | Granite-Block Paving | Short portion of Bruno Street between Alameda and North Main Streets. | No. Property is located outside the Project APE |
| No. 281 (P-19-175256). | Cathedral High School | 1253 Bishop Road | No. Property is located outside the Project APE |
| No. 442 | Albion Cottages & Milagro Market | 1801, 1803, 1805, 1809, and 1813 Albion Street | No. Property is located outside the Project APE |
| No. 587 | Lincoln Heights Jail/ Los Angeles City Jail | 401-449 North Avenue 19 | No. Property is located outside the Project APE |

### 2.7.2.4 Field Methods

Following delineation of the APE, a field reconnaissance survey of the area was conducted to account for all the buildings and structures found within the APE. The reconnaissance survey screened existing buildings and structures to identify properties appearing to be more than 45 years of age and requiring additional study. Additional background research of these buildings was conducted by examination of a commercial database[49] and a review of historic area maps to confirm dates of construction. Three properties were identified within the project APE during the field survey and were evaluated for historic significance under CEQA and NEPA. The results of the field survey are summarized in Section 2.7.2.6.

### 2.7.2.5 Caltrans Statewide Bridge Inventory

The Caltrans Statewide Bridge Inventory (Historical Significance – Local Agency Bridges, June 2009) lists the North Spring Street Viaduct as Category 2, eligible for inclusion on the NRHP. This viaduct is one of 12 bridges along the Los Angeles River that were found to be eligible for listing on the NRHP. The North Spring Street Viaduct was found to be an important element in the development of transportation systems in Los Angeles, especially those providing links across the Los Angeles River. This viaduct, along with the other bridges constructed during this period, helped facilitate movement between the developing central city and the growing

[49] First American Real Estate Solutions

residential suburbs of East Los Angeles. Although the viaduct has been modified, it was found to retain sufficient integrity to convey its NRHP status. It is also listed in the CRHR and was listed as a Los Angeles HCM (#900).

#### 2.7.2.6 Findings

The Architectural APE includes the North Spring Street Viaduct and a small pocket of industrial buildings located to the west of the viaduct, adjacent to the SPRR rail yard. Generally, this area on the west side of the Los Angeles River is composed of light industrial and commercial buildings and warehouses that were constructed in the late nineteenth century in close proximity to the SPRR rail yard. Warehouses, and small manufacturing companies, dating from the late nineteenth century through the 1980s, line both sides of North Spring Street with scattered construction throughout the rest of the area. There are no buildings located within the APE on the east side of the viaduct.

##### *Properties Listed on the NRHP*

There are no properties within the APE listed on the NRHP.

##### *Properties Previously Determined Eligible for Listing on the NRHP*

*Table 2-19* below describes the properties within the APE previously determined to be eligible for the NRHP.

**Table 2-19 Properties in the Project APE Eligible for the NRHP**

| Name | Address | City | OHP Status Code | Map Ref No. |
|---|---|---|---|---|
| Bridge 53C-0859 | North Spring Street Viaduct | Los Angeles | 2 | 1 |

North Spring Street Viaduct (Bridge 53C-0859)

The North Spring Street Viaduct was found to be eligible for the NRHP under the Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history, and Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction, or that represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.

The North Spring Street Viaduct was an important element in the development of transportation systems in Los Angeles, especially those providing links across the Los Angeles River. This viaduct, along with the other bridges constructed during this period, helped facilitate movement between the developing central city and the growing residential suburbs of East Los Angeles.

The North Spring Street Viaduct is also associated with the City Beautiful Movement of the late 19th and early 20th centuries. The City Beautiful Movement aimed at creating large parks (i.e.,

Central Park in New York) and monumental architecture. The particular architectural style of the movement borrowed heavily from the contemporary Beaux-Arts Movement, which emphasized the necessity of order, dignity and harmony. The movement also borrowed from classical monumental planning but differed from the true neoclassical style in that in the City Beautiful Movement, the classical idiom was adopted only partially, mixed with Beaux-Arts elements.

The development of the North Spring Street Viaduct occurred in 1928, during an era spanning the City Beautiful Movement. Therefore, the architectural styles of this viaduct can be architecturally characterized as an example of the contemporary Beaux-Arts Movement.

The development of the North Spring Street Viaduct, along with the other Los Angeles River Bridges were important not only because they beautified Los Angeles by creating monumental design on a massive scale (even by today's standards) that became iconic symbols of Los Angeles, but also because of the inherent necessity of the bridges themselves. As Los Angeles' population exploded and the automobile emerged, the bridges were part of an ambitious bridge construction program to accommodate increasing numbers of automobiles and alleviate traffic jams on the surface streets between automobiles and Red Cars.

The North Spring Street Viaduct was constructed in 1928, and subsequently widened in 1939 by removing the south sidewalk. In 1993, the viaduct's railing was repaired due to widespread spalling of the concrete and sections were replaced in kind. In addition, cable restrainers were added to improve seismic response characteristics of the structure and the electroliers were replaced in kind.

The North Spring Street Viaduct is the only resource within the APE that has previously been determined eligible for listing on the NRHP. It is listed on the CRHR. The remaining three resources evaluated for this project (1709, 1701, and 1635 North Spring Street) were determined to not be eligible for the NRHP or CRHR. Therefore, they are not considered to be historic properties for the purposes of Section 106 of the NHPA, nor do they appear to be historical resources for the purposes of CEQA (refer to Appendix H).

### *Properties Determined Eligible for the National Register of Historic Places as a Result of the Current Study*

As a result of investigations for this project, no new properties were identified that appear eligible for the NRHP and there are no resources within the APE that require further study.

### *Properties Determined Not Eligible for the National Register of Historic Places As a Result of the Current Study*

The HRER prepared for this project determined that the resources listed in *Table 2-20* below are not eligible for listing on the NRHP or the CRHR.

**Table 2-20 Properties in the project APE Not Eligible for the NRHP**

| Name | Address | City | OHP Status Code | Map Ref No. |
|---|---|---|---|---|
| Raphael Junction Block | 1709 North Spring Street | Los Angeles | 6 | 2 |
| Raphael Junction Block | 1701 North Spring Street | Los Angeles | 6 | 3 |
| Raphael Junction Block | 1635 North Spring Street | Los Angeles | 6 | 4 |

1709 North Spring Street

Located on the Junction Block, the building located at 1709 North Spring Street was originally constructed in 1895 as a flour mill – the Porta Costa Mill, and was used as a two story warehouse with a one story office in the front southwest corner. This two story brick building has been heavily altered. The building originally sat at the lot line with one story office at the corner building. The section of the building facing North Spring Street has been removed and the building is now set back from the street with a security wall. There are aluminum sided windows at the second story and the roof is flat. The building is comprised of brick and concrete masonry construction.

This building does not appear to meet the criteria for listing in the NRHP, nor does it appear to be a historical resource for the purposes of CEQA. Under Criterion A, this building does not appear to be significant within the context of industrial development in Los Angeles, but appears to represent a typical pattern in this development. Under Criterion B, there do not appear to be any historically significant persons associated with this building. Under Criterion C, this building does not appear to be a significant example of a type, period or method of construction. There are several flour mills left in the industrial areas, the most notable is the Capitol Flour Mill located on the edge of Chinatown on North Spring Street. Significant examples of flour mills were constructed of brick with a decorative façade reflecting the current architectural features, such as corbelled cornice, decorative lintels and sills, and arched window and door openings.

The building at 1709 North Spring Street retains little of its historic integrity and has little architectural detail left from its original style. The building at 1709 North Spring Street does not appear to have historic or architectural significance and does not appear to meet the criteria for listing in the NRHP. Furthermore, this property has been evaluated in accordance with Section 15064.5(1)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California PRC. The property does not appear to meet the criteria for listing in the CRHR.

1701 North Spring Street

This one story building sits on a 0.20-acre parcel and was built circa 1894. Adjacent to the corner, this building sits on a concrete foundation and has a flat roof. The roof is covered with rolled composition and has a modest cornice with details. A modern freight door with an accordion gate has been added. This building is part of the Junction Block and sits adjacent to the

building on the south corner of the block. Historic Sanborn Fire Insurance Maps do not show an occupant for this building and research at the City of Los Angeles Department of Building and Safety did not indicate who constructed this building. There were no original building permits on file for this building. It is possible that the Raphael Plate Glass Company, who owned the building on the south corner, may have built it as they expanded. Subsequent permits indicate that there were several modifications to the interior in the 1940's such as construction of a mezzanine and construction of a storage closet.

Under Criterion A, this building does not appear to be significant within the context of industrial development in Los Angeles. Originally a residential area characterized by multi-family residences and tenements, the area developed into an industrial area once the city began to segregate land uses. As a result, this area appears to represent a typical pattern the development mentioned above. Under Criterion B, there does not appear to be any historical persons associated with this building. Under Criterion C, this building does not appear to be a significant example of a type, period or method of construction. Built adjacent to the triangular building at 1635 North Spring Street, this type of one story commercial construction was typical of commercial construction of the late 1890's.

Thus this property does not appear to meet the significance criteria for listing in the NRHP. In addition, the building lacks integrity to its construction date and as a result many of the character defining features of this type of commercial construction have been lost. Furthermore, this property has been evaluated in accordance with Section 15064.5(1)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California PRC. The property does not appear to meet the criteria for listing in the CRHR.

1635 North Spring Street / New York Suspender Factory

Located at the corner of Baker and North Spring Street, this building is situated on a triangular parcel of 0.23 acres. Constructed circa 1890, it conforms to the shape of the lot and is triangular in shape. Often mistakenly referred to as a "Flat Iron" style building, this particular example is a masonry structure clad in stucco, two stories in height. It sits on a concrete foundation and has a flat roof. Fenestration consists of arched one-over-one double hung sashes on the second floor, and infilled arched openings on the first floor. Some of the openings have been filled with roll-up freight doors and single leaf doors and a few of the arched divided light windows still remain.

The New York Suspender Factory first occupied the second floor of this building, but research did not indicate whether they constructed the building. By 1906, Raphael Glass took over the entire building and continued expansion into the adjacent building. They remained at this site until after 1951. The building was most recently used as a warehouse for TWD Trading Company.

Under Criterion A, this building does not appear to be significant within the context of industrial development in Los Angeles. Originally a residential area characterized by multi-family residences and tenements, the area developed into an industrial area once the city began to segregate land uses. As a result, this area appears to represent a typical pattern in the development mentioned above. Under Criterion B, there does not appear to be any historical persons associated with this building. Under Criterion C, this building does not appear to be a significant example of a type, period or method of construction. It is a common type of commercial construction, a simple example of the type of building that became a popular solution to building on a triangular lot and does not appear to be a significant example of this type of construction whish is well documented.

Because it is heavily altered, the building retains little of its integrity and has little architectural detail left from its original construction. Therefore, this building does not appear to meet the criteria for listing in the NRHP. Furthermore, this property has been evaluated in accordance with Section 15064.5(1)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California PRC. The property does not appear to meet the criteria for listing in the CRHR. However, the Raphael Junction Block was declared Los Angeles HCM #872, in May 2007; therefore, it is a historical resource for the purposes of the CEQA.

#### 2.7.2.7 Evaluation Criteria

##### *Adverse Effect Criteria*

Impacts to historic properties (properties eligible or listed on the NRHP) are determined based on the definition of effect contained within 36 CFR Part 800: "*Effect* means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." An adverse effect occurs "when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative." Examples of adverse effects may include, but are not limited to, the following:

1. Physical destruction of or damage to all or part of the property;
2. Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation, and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR Part 68) and applicable guidelines;
3. Removal of property from its historic location;

4. Change of the character of the property's use or of physical features within the property's setting that contributes to its historic significance;
5. Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;
6. Neglect of a property that causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and 4 36 CFR 800.5(a)(1); and/or
7. Transfer, lease, or sale of property out of federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

### *Criteria for Substantial Adverse Change*

A project that may cause a substantial adverse change in the significance of an historical resource (properties listed on or determined eligible for the CRHR is a project that may have a significant effect on the environment (PRC §21084.1). The purpose of the assessment of impacts is to determine whether or not the proposed project will cause a substantial adverse change on any identified historical resources within the proposed project area.

Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (PRC § 5020.1(q) and 15064.5(b)(1)). CEQA Guidelines provide that a project that demolishes or alters those physical characteristics of an historical resource that convey its historical significance (i.e., its character-defining features) can be considered to materially impair the resource's significance.

The significance of an 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 historic significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR.

Generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (1995), Weeks and Grimmer, shall be considered as mitigated to a level of less than a significant impact on the historical resource (CCR Title 14, Chapter 3 §15064.5 (b)(3)).

### *Application of the Secretary of the Interior's Standards for Rehabilitation*

The Secretary of the Interior's Standards for the Treatment of Historic Properties were originally published in 1977 and revised in 1990 as part of Department of the Interior regulations (36 CFR Part 67, Historic Preservation Certifications). They pertain to historic properties of all materials, construction types, sizes, and occupancy and encompass the exterior and the interior of historic buildings. The standards also encompass related landscape features and the building's site and environment as well as attached, adjacent, or related new construction.

The Standards for Rehabilitation are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility. The Standards for Rehabilitation are as follows:

- A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
- The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
- Each property shall 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 architectural elements from other buildings, shall not be undertaken.
- Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
- Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a property shall be preserved.
- Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials. Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
- Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
- Significant archeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
- New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old

and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.

- New additions and adjacent or related new construction shall 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.

### 2.7.3 Environmental Consequences

This section applies the Criteria of Adverse Effect as outlined in 36 CFR 800.5 and an evaluation of substantial adverse change to each of the proposed alternatives. This section also includes an evaluation of the newly proposed Design Option A for effects on the historic viaduct.

#### 2.7.3.1 No Build Alternative

The No Build Alternative would have no direct or indirect effects on historical resources.

#### 2.7.3.2 Build Alternative 1

Build Alternative 1 would not cause a direct adverse effect to the viaduct. The alternative would not cause physical destruction of the historic property, or a portion of the historic property, and the alterations to the structure necessary for the seismic retrofit would be generally consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68), the most applicable treatment of which would be the Standards for Rehabilitation.

This alternative, overall, would not diminish the structure's historic integrity of location, setting, design, materials, workmanship, feeling, and association, and thus the bridge would continue to be able to convey its significance. While there are some components of this alternative that have the potential to affect some aspects of structure's historic integrity, such as the introduction of fiber wrapped columns and steel pipe extenders at the pier walls and the addition of new spandrel walls at the interior arch rings, the treatments would be minimally visually impacting to the overall structure. However, this alternative would not meet the project's purpose and need.

#### 2.7.3.3 Build Alternative 2

Build Alternative 2 would have a direct adverse effect on the North Spring Street Viaduct because it would cause physical destruction of a part of the historic property and would alter the historic property in a manner that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68), the most applicable treatment of which would be the Standards for Rehabilitation. This build alternative would thus greatly diminish the historic property's historic integrity and its ability to convey its significance.

The main components of Build Alternative 2 that would adversely affect the historic property are the demolition of existing features and construction of the widened structure. These components would adversely affect all of the viaduct's character-defining features. The proposed project

would widen the existing viaduct by approximately 20 feet on each side. This would require removal and replacement of the existing sidewalk, railing system, and electroliers along both sides of the structure, widening the viaduct deck to match the cross section of North Spring Street immediately east and west of the viaduct.

The widened structure would include sidewalks, shoulders that would accommodate bicycles, four lanes of traffic, and a raised median on the viaduct along with a landscaped median on the approaches. As noted above, the City would seismically retrofit the existing spandrel columns, struts between the arches, and arches rings by installing a fiber wrap material around those members to increase their sheer capacity. The composite fiber wrapping would be covered with a flame-proof spread coating that matches the existing concrete color.

In addition, this alternative would not comply with the Guidelines for Historic Bridge Rehabilitation and Replacement (2007). Implementation of this alternative would result in an adverse effect, since it would remove some of those significant features of the structure which currently make the property eligible for inclusion in the NRHP.

Build Alternative 2 would affect most aspects of the viaduct's historic integrity, but would not diminish the viaduct's integrity of location or setting as the alternative would not remove the historic property from its original site and would not include construction of new features within the setting of the structure that detract from one's comprehension of its historic significance.

Removal of the existing railings, electroliers, and classical architecture decorative features to widen the viaduct would considerably diminish the historic property's integrity of design, materials, workmanship, feeling, and association, as shown in *Figures 1-8, 1-9,* and *1-10*. These aspects of Build Alternative 2 would alter the viaduct's original form, plan, and spatial relationships. In addition to the widened structure, there would also be a median on the structure that was not part of the original design and would alter the design and appearance of this structure.

The demolition and widening would also remove or damage original or appropriate historic materials and features, would alter the sense of time and aesthetic the structure illustrates of its period of significance, and would alter the structure's ability to illustrate an authentic and direct link to the City's historic bridge building program of the early twentieth century.

The City would implement Build Alternative 2 to match the architectural character and appearance of the original structure, to the extent that this is feasible. The City has indicated that the existing electroliers would be either reused or that new electroliers built on the widened structure are intended to match the existing electroliers. The new substructure, including the abutments and added bents, would also match the existing viaduct, to the extent possible. These

efforts are intended to help reduce the adverse effect on the historic property caused by Build Alternative 2.

However, the design does not comply with the Secretary of Interior's Standards for Rehabilitation. While the Standards for Rehabilitation state that additions to a historic property should be compatible, the standards emphasize retention of the historic character of a property, including preservation or rehabilitation of original materials, features, finishes, and spatial relationships that are distinctive to the historic property. The standards also state that new additions should be constructed so that if they are removed in the future the form and integrity of the historic property would be unimpaired. The designs for Build Alternative 2 would not retain the viaduct's significant original materials, features, features, and spatial relationships, and the proposed additions could not be removed in the future wherein the structure's historic integrity would be unimpaired. This alternative would not cause an indirect adverse effect on the viaduct because it would not introduce visual, auditory, or vibration impacts within the historic property's setting.

The North Spring Street Viaduct is listed as a Los Angeles HCM No. 900 and therefore is a historical resource for the purposes of CEQA as well. Build Alternative 2 would also cause a substantial adverse change on the significance of the resource for the same reasons stated above. This alternative would include physical demolition and alteration of the resource and its immediate surroundings such that the significance of the property would not be materially impaired. Also, the proposed replication of the dual-sided widening is not consistent with the Secretary of the Interior's Standards. Therefore, the viaduct would no longer be eligible for its currently listed status as a Los Angeles HCM.

### *Viaduct Design Option A - Reduced Single-Sided Widening*

The proposed Design Option A for Alternative 2 would include minimizing the roadway width by accepting a design exception for the standard roadway widths to only widen the viaduct by 23 feet to the outside rail (instead of widening both sides of the viaduct by 20 feet). The widened viaduct would be striped with two 11-foot traffic lanes in each direction and a 4-foot median. This design option would also include a 5-foot bike lane and a 5-foot sidewalk on each side of the viaduct between the outer railings. To match the approach roadway on the west end, the existing wingwall on the north side would be replaced with a new one at approximately a 5-degree skew. The single side widening on the south side would either be similar to the Beaux-Arts design or would be a new design that is compatible with the historic viaduct.

The substructure of the widened portion of the viaduct would be supported by independent bents (not connected to the existing piers and arches), but the superstructure (deck and area above the arches and columns) would be connected to the historic viaduct. Therefore, the connection of the two structures would require removal of some of the existing historic details and materials on the

south side of the viaduct (railing, cantilever and supporting brackets). Therefore, Design Option A would remove some historic fabric that is considered character defining, which constitutes and adverse effect. However, the intent of this design option is to minimize the overall impacts that the project would have on the historic viaduct by utilizing some flexibility in design exceptions as outlined in the *AASHTO Guidelines for Historic Bridge Rehabilitation*. Therefore, even though Design Option A would cause some physical damage to the viaduct, the proposed option would still preserve the characteristics that qualify the property as historic.

With the narrower lane widths proposed, the project would still be adequate for vehicle travel and the widening would accommodate a safe passage for bicycles and pedestrians. The minimized widening would help to preserve the historic scale and feel of the deck and the single sided widening to the south would preserve the entire design and historic fabric of the viaduct as seen from the north.

By having a proposed addition to the south that is freestanding and not connected to the historic viaduct (except at the deck level), the overall physical impact to the viaduct would be minimized. The added portion to the south could be differentiated from the old by introducing a design that is compatible with the size, scale, design, architectural features and materials of the historic viaduct, which would be in keeping with the Secretary of the Interior's Standards for Rehabilitation. If the south side addition were to be removed in the future, it would be more easily reversible, as the only elements that would require replication would be the south side railing and the supporting brackets.

The intent of the south sided widening is to minimize physical impacts to the existing viaduct, while introducing a new, light weight, structure that minimally impacts the view of the historic viaduct from the south, while preserving the entire viaduct from the north. Therefore, although from a regulatory perspective, Design Option A would cause physical damage to the North Spring Street Viaduct, it would still preserve the scale, location, setting, design, materials, workmanship, feeling and association of the historic viaduct. Therefore, it would be the least impacting of the widening alternatives; it would meet the project's purpose and need, while respecting the historic elements of the viaduct.

Additionally, a new reduced addition to the south side of the viaduct would be constructed in a manner that would have the least physical impact on the viaduct and it would not materially impair in an adverse manner the characteristics of the historical resource that justify its eligibility as a Los Angeles HCM. The majority of design features and historic fabric would be preserved (the entire north side, the entire substructure, arches, spandrel columns, Beaux-Arts design, etc.). The south side railing that would be removed has already been substantially replaced and is therefore not historic fabric. Additionally, the proposed reduced single-sided addition would

meet the Secretary of the Interior's Standards for Rehabilitation if it is designed in a manner that is compatible, yet distinguishable, and not an exact replica of the existing historic viaduct.

#### 2.7.3.4 Build Alternative 3

The impacts to the North Spring Street Viaduct under Build Alternative 3 would be the same as those discussed under Build Alternative 2. In addition, this alternative would affect the Los Angeles HCM No. 872 **(**Raphael Junction Block Building). It was designated a HCM in May 2007, and is considered a historical resource for the purposes of CEQA. This monument is located within the project APE and would be demolished under Build Alternative 3.

The demolition of HCM No. 872 would cause a substantial adverse change in the significance of the historical resource because Build Alternative 3 would include the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (PRC § 5020.1(q) and 15064.5(b)(1)).

Further, the removal of distinctive materials or alternation of features, spaces, and spatial relationships is not advocated in these Secretary of the Interior's Standards, and removing HCM No. 872 would significantly alter the relationship of the surrounding buildings. Because the property would be demolished, it would make the property no longer eligible for its currently listed status as a Los Angeles HCM.

### 2.7.4 Construction Impacts

#### 2.7.4.1 No Build Alternative

The No Build Alternative would not result in construction impacts to the North Spring Street Viaduct or other nearby structures.

#### 2.7.4.2 Build Alternatives 1, 2 and 3

Noise and vibration produced during construction is not expected to adversely affect any of the historic properties (refer to Section 2.13, Noise). Therefore, there would be no additional audible elements that would diminish the integrity of the historic properties, and no impacts would occur.

### 2.7.5 Cumulative Impacts

The build alternatives would not have a cumulative adverse effect because the known past projects, including the seismic retrofit and repairs in 1992 and 1993, did not diminish the historic integrity of the viaduct, and the current project would remove and replace many of the viaduct components that were installed in that time. Therefore, the 1990s project and the current project alternatives do not collectively present an effect that is cumulative. Furthermore, there are no other know present projects or projects in the foreseeable future which could, combined with the

proposed project, cumulatively affect this viaduct. Although the North Spring Street Viaduct is noted as one of Los Angeles' monumental bridges, the viaduct is not a contributor to a historic district and thus consideration of effects can be limited to the individual structure.

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

Build Alternative 1 would minimize impacts on the North Spring Street Viaduct if measures are implemented to ensure that the proposed retrofit strategy is carried out in a manner that is consistent with the Secretary of the Interior's Standards for Rehabilitation and if the construction activities are monitored for compliance with those Standards.

Build Alternative 2 would not avoid impacts to the historic North Spring Street Viaduct, an NRHP eligible property and a listed Los Angeles HCM; however, it would avoid impacts to the Raphael Junction Block Building, a listed Los Angeles HCM.

Build Alternative 3 would not avoid impacts to the historic North Spring Street Viaduct, a National Register eligible property and a listed Los Angeles HCM. This alternative would also require demolition of the HCM Raphael Junction Block Building.

Build Alternative 2 with Design Option A would minimize impacts to the historic North Spring Street Viaduct. Although this option would cause a regulatory adverse effect on the viaduct due to the loss of some historic fabric, the overall impacts to the viaduct could be reduced if 1) the proposed addition is designed in a manner that is compatible with the historic viaduct but distinguishable from the Beaux-Arts design in compliance with the Secretary of the Interior's Standards for Rehabilitation, 2) the construction activities are monitored for compliance with the standards, and 3) additional mitigation measures are employed as outlined below.

#### 2.7.6.1 Build Alternative 1

The following mitigation measures (MM) are recommended to minimize impacts to the viaduct. If implemented, these measures should be completed in accordance with the January 1, 2004, Programmatic Agreement Among the FHWA, the ACHP, the SHPO, and Caltrans regarding compliance with Section 106 of the NHRA, as it pertains to the Administration of the Federal-Aid Highway Program in California, and in accordance with the Memorandum of Agreement (MOA) to be prepared between SHPO, Caltrans, and FHWA:

**MM HIS-1**: Prior to any viaduct construction activities, the City should contact the National Park Service (NPS) Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) program to determine if additional recordation is required for the North Spring Street Viaduct beyond that provided in 1996. Unless otherwise agreed to by the NPS HABS/HAER, the City should ensure that all documentation is completed and accepted by HABS/HAER before the viaduct is altered. All documentation should be prepared to the

satisfaction of SHPO to reduce potential effects of the proposed project. All documentation should be prepared by professionals meeting the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A.

**MM HIS-2**: The City should submit the proposed seismic strategy plans to Caltrans for review to ensure that the plan complies with the Secretary of the Interior's Standards for Rehabilitation prior to commencement of any seismic related construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the Standards. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A.

**MM HIS-3**: The City should retain, clean and restore the existing bronze dedication plaques that are located on the viaduct. These plaques should remain on the viaduct; however if the viaduct is widened, then the dedication plaques should be relocated to an appropriate location on the widened section of the viaduct.

### 2.7.6.2 Build Alternatives 2, 3, and Build Alternative 2 with Design Option A

In addition to the measures recommended for Build Alternative 1 above (MM HIS-1 through MM HIS-3), the following measures are recommended for Build Alternatives 2 and 3 or for Build Alternative 2 with Design Option A.

**MM HIS-4:** The City should prepare a website, or adapt its current website, to make the information from the HABS/HAER report available to the public for at least five years. The information should also be made available to the Caltrans Transportation Library in Sacramento for inclusion on their website.

**MM HIS-5:** The City should install informative permanent metal plaques at both ends of the viaduct at public locations that provide a brief history of the viaduct, its engineering features and characteristics, the reasons for its alteration, and a statement of the characteristics of the replacement features. The SHPO would have 30 days to review proposed plaque information before they are produced and installed.

**MM HIS-6**: To the extent feasible, the City should make a reasonable effort to retain and reuse architectural features that are removed from the viaduct as part of the widening project. This includes concrete railings, electroliers, and concrete brackets, as appropriate. To the extent feasible, concrete railings and electroliers should be reused on the widened structure or incorporated into a new design for the widened portion of the viaduct. If the architectural features cannot be reasonably re-used on the viaduct, then those features should be replicated in

kind and the original features should be utilized in other design elements of the overall project as landscaping and hardscaping features such as along the pedestrian undercrossing on the east side of the viaduct and along the viaduct embankments near the Downey Recreational Center. Sections of salvaged brackets, if removed for the widening, should be considered as a potential element for on-site or off-site interpretive displays on the viaduct.

**MM HIS-7**: The City should make a reasonable effort to coordinate with the local park facilities adjacent to the viaduct and identify an appropriate location for an interpretive display or kiosk within the immediate vicinity of the viaduct. The interpretive display should include information on the Los Angeles River Monument Bridges' history and significance, as well as information on the design process of the widened viaduct, including information on the design and construction process and the public outreach efforts. The interpretive display or kiosk could include salvaged architectural elements not re-utilized on the viaduct widening project or special lighting to highlight the historic viaduct. All interpretive material should be prepared in consultation with the Los Angeles Conservancy and the CHC and should be made available for review and approval by Caltrans and the SHPO prior to fabrication and installation.

### 2.7.6.3 Build Alternative 2 with Design Option A (Only)

In addition to the measures recommended for Build Alternatives 1, 2, and 3 above (MM HIS-1 through MM HIS-7), the following measures are recommended for Design Option A.

**MM HIS-8**: The City should install Los Angeles HCM plaques on both sides of the viaduct.

**MM HIS-9**: The City should work with a qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards in Architectural History or Historic Architect to design the reduced single sided widened structure to the south of the existing viaduct in a manner that is compatible with the historic viaduct but distinguishable from the existing design or materials in conformance with the Secretary of the Interior's Standards for Rehabilitation. The final proposed designs should be submitted to Caltrans and the SHPO for comment prior to commencement of construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the Standards for Rehabilitation. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to the Code of Federal Regulations, 36 CFR Part 61, Appendix A.

### 2.7.6.4 Build Alternative 3 (Only)

In addition to the measures (MM HIS-1 through MM HIS-9) recommended above, the following measures are recommended for Build Alternative 3.

**MM HIS-10:** The City should consult with Caltrans to undertake documentation of the HCM No. 872, Raphael Junction Block Building in accordance with HABS/HAER standards prior to demolition of the structure. The level of documentation, format, and number of views would be the discretion of Caltrans and the SHPO.

# 2.8 Archaeological Resources

## 2.8.1 Regulatory Setting

Archaeological resources are considered under CEQA. CEQA stipulates that both public and private projects with financing or approval from a public agency must assess the effects of the project on cultural resources (PRC Sections 21082, 21083.2 and 21084.1 and CCR Section 15064.5).

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in PRC sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction; establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

## 2.8.2 Affected Environment

An Archeological Survey Report (URS Corporation, 2006) was prepared as part of the Section 106 Study to identify any known potential archaeological resources in the proposed project's archaeological APE. This section describes the findings of the Archaeological Study Report.

### 2.8.2.1 Environmental Setting

The area encompassing the project site in downtown Los Angeles was home to Native American groups for at least 8,000 years. The native ecological environment consisted of a large basin surrounded by the San Gabriel Mountains and river and stream drainages, which were prime locations for Native American food processing and village sites. Urban development has often buried prehistoric archaeological sites by 3 or more feet of topsoil, often protecting sites even after an area has become highly urbanized, particularly in areas with shallow building foundations, parks, parking lots, and roads. Nevertheless, prehistoric sites occasionally can be found on the surface in urbanized areas that have not been extensively disturbed.

The following is a cultural chronology of the Native American habitation of Southern California. Noted Anthropologist William Wallace first developed this chronology in 1955. Since then, various chronologies suggested for several regions of California have been published. All of these regional chronologies were based on Wallace's version with only minor changes. Wallace's 1955 chronology remains among anthropological and archaeological scholars as a standard cultural chronology for the prehistoric habitation of Southern California.

### *Prehistoric Period*

The prehistoric cultural history of the proposed project area is outlined in the following chronology.

Early Man Horizon

From the end of the Pleistocene (approximately 11,000 B.C. to approximately 6,000 B.C.), archaeological assemblages attributed to this horizon area were characterized by large projectile points and scrapers. The limited data available suggest that prehistoric populations focused on hunting and gathering, moving from region to region in small, nomadic groups.

Milling Stone Horizon

This horizon is characterized by the appearance of hand-stones and milling-stones and dates between approximately 6,000 B.C. to 1,000 B.C. Artifact assemblages during the early Milling-Stone period reflect an emphasis on plant foods and foraging subsistence systems. Inland populations generally exploited grass seeds, which became the primary subsistence activity. Artifact assemblages are characterized by choppers and scraper planes but generally lack projectile points. The appearance of large projectile points in the latter portion of the Milling Stone Horizon suggests a more diverse subsistence economy.

Intermediate Horizon

Dated from 1,000 B.C. to A.D. 750, the Intermediate Horizon represents a period of transition for prehistoric Native American groups. Archaeological site assemblages possess many attributes of the Milling Stone Horizon. In addition, however, these sites generally contain large stemmed (or notched) projectile points and portable mortars and pestles. It is believed that the mortars and pestles were used to harvest, process, and consume acorns. Given the general lack of data on the subsistence system and the cultural evolution of this period, the substrates representing the cultural behavior are not well understood.

Late Prehistoric Horizon

From A.D. 750 to Spanish contact in A.D. 1769, the Late Prehistoric Horizon reflects an increased technological sophistication and diversity. This period is characterized by the presence of small projectile points, which imply the use of bow and arrow, as opposed to spear. In addition, site assemblages also include steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. Utilization of bedrock milling slicks is prevalent throughout this horizon. Also, an increase in hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Modern archaeological theory suggests these innovations seem to have promoted living in one place.

### *Ethnography: Tongva/Gabrieleño*

The Tongva/Gabrieleno are a Native American people who inhabited the area in and around the Los Angeles basin. *Tongva* means "people of the earth" in the Tongva language, a language in the Uto-Aztecan family. The Tongva are also often referred to as the Gabrieleño/Tongva or Gabrielino/Tongva tribe. Following the Spanish custom of naming local tribes after nearby missions, they were called the Gabrieleño, Gabrieliño, or San Gabrieleño in reference to Mission San Gabriel Arcangel (see *Figure 2-29*).

These Native Americans known as the Gabrieleño spoke a language that falls within the Cupan group of the Takic subfamily of the Uto-Aztecan language family. This language family is extremely large and includes the Shoshonean groups of the Great Basin. Given the geographic proximity of Tongva/Gabrieleño and Serrano bands living in the area and their linguistic similarities, ethnographers have suggested that they shared the same ethnic origins. Correspondingly, these groups will be referred to as the Gabrieleño in this document.

The Gabrieleño are considered one of the most distinctive tribes in all of California, occupying a large area that was bordered on the west by Topanga and Malibu, the San Fernando Valley, the greater Los Angeles basin, and the coastal strip south to Aliso Creek, south of San Juan Capistrano. Gabrieleño territory extended from the San Bernardino Mountains to the islands of Catalina, San Clemente, and San Nicolas and occupied most of modern day Los Angeles and Orange Counties.

Very little is known about early Tongva social organization because the band was not studied until the 1920s and had already been drastically affected by contact with missionaries and settlers.[51] Kroeber's (1925) work indicates that the Tongva were a hierarchically ordered society with a chief who oversaw social and political interactions both within the Tongva culture and with other groups. The Tongva had multiple villages ranging from seasonal satellite villages to larger more permanent villages.

Resource exploitation was focused in village-centered territories and ranged from hunting deer, rabbits, birds, and other small game to sea mammals. Fishing and gathering acorns and various grass seeds were also important.[52] Fishing technology included basket fish traps, nets, bonefish hooks, harpoons, and vegetable poisons, and ocean fishing was conducted from wooden plank canoes lashed and asphalted together.[53]

[51] Kroeber, Alfred L. 1925. *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington.
[52] Bean, L. and C. Smith. 1978. 'Gabrieliño'. In *Handbook of North American Indians*, Volume 8, California. R. F. Heizer (ed.): 538-549. Washington DC: Smithsonian Institute Press.
[53] Blackburn, Thomas C. 1962-63. Ethnohistoric Descriptions of Gabrielino Material Culture. *Annual Reports of the* University of California Archaeological Survey 5: 1-50. Los Angeles.

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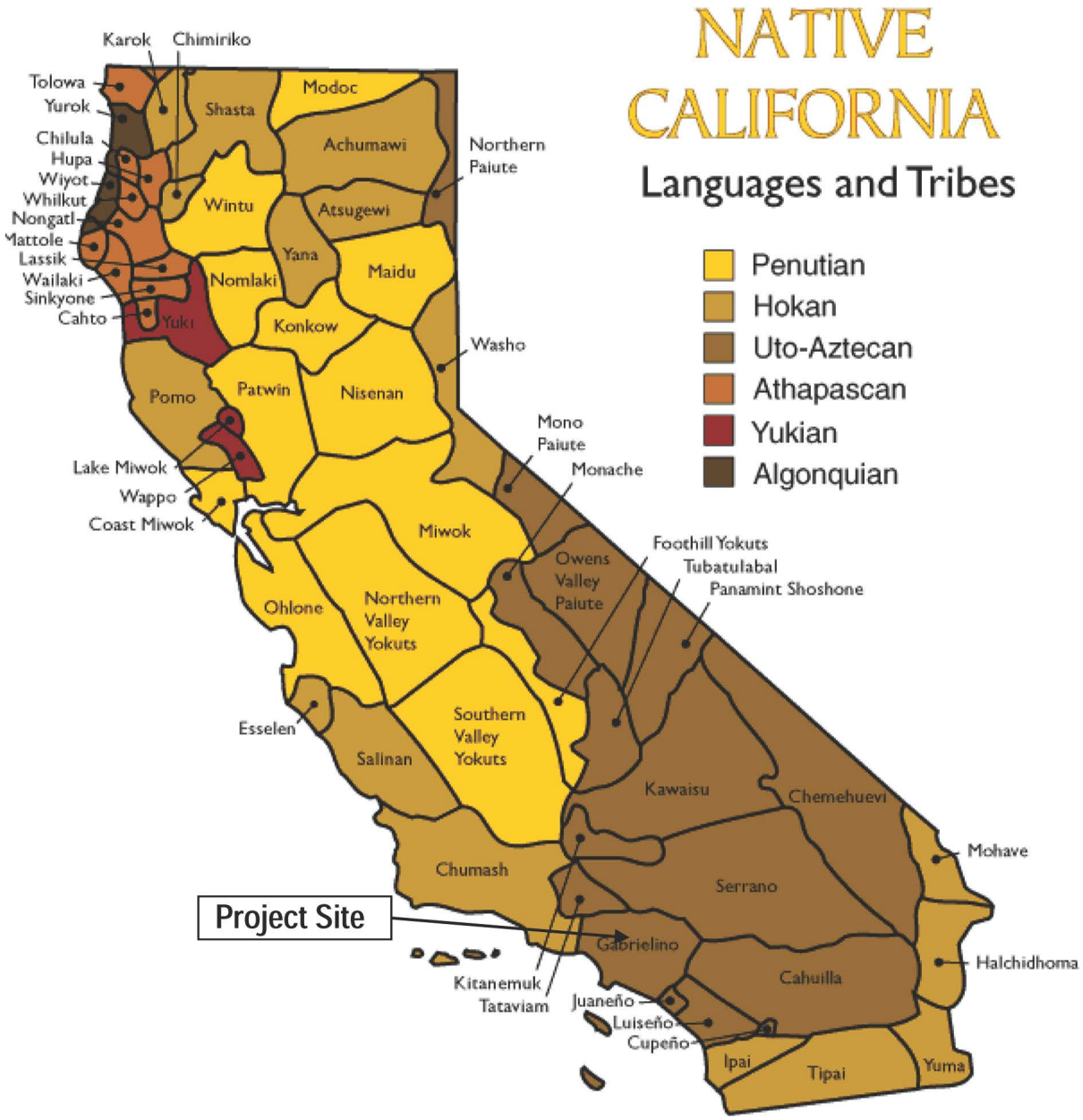


Source: Native American Heritage Commission

| | | |
|---|---|---|
| LA DPW ENGINEERING | NATIVE CALIFORNIA POPULATIONS IN RELATION TO THE PROJECT SITE | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-29 |

Tongva houses were large, circular, thatched and domed structures of tule, fern, or Carrizo that were large enough to house several families.[54] Smaller ceremonial structures were also present in the villages and were used in a variety of ways. These structures were earth-covered, and different ones were used as sweathouses, meeting places for adult males, menstrual huts, and ceremonial enclosures (*yuva'r*).[55]

The coastal Tongva are among the few New World peoples who regularly navigated the ocean. They built seaworthy canoes, called *ti'at*, using planks that were sewn together, edge to edge, and then caulked and coated with either pine pitch or, more commonly, tar that was available either from the La Brea Tar Pits or asphaltum that had washed up on shore from offshore oil seeps. The *ti'at* could hold as many as 12 people and all of their gear and trade goods carried to exchange with other people, either along the coast or on one of the Channel Islands. The Tongva canoed out to greet Spanish explorer Juan Cabrillo when he arrived off the shores of San Pedro in 1542.

Modern place names with Tongva origins include: Pacoima, Tujunga, Topanga, Rancho Cucamonga, Azusa, and Cahuenga Pass. In addition, many other places take their name from the Tongva people. The name of their creation deity, *Quaoar*, has been used to name a large object in the Kuiper belt (a region of the solar system beyond the planets extending from the orbit of the planet Neptune). A 2,656-foot summit in the Verdugo Mountains, in Glendale, has been named *Tongva Peak*.

The *Gabrieleno Trail* is a 32-mile path through the Angeles National Forest. In the 1990s, Kuruvungna Springs, a natural spring located on the site of a former Tongva village on the campus of University High School in West Los Angeles, was revitalized due to the efforts of the Gabrielino/Tongva Springs Foundation. The spring, which produces 22,000 gallons of water each day, is considered by the Tongva to be one of their last remaining sacred sites and is regularly used for ceremonial events.

### *Project Area History*

Spanish Exploration, Mexican Settlement, and American Occupancy

Exploration of California first occurred in 1540 when a land expedition under the command of Hernando de Alarcon. Two years later, the first documented description of Los Angeles County comes from Juan Rodriguez Cabrillo in 1542. Apparently, his ship made land fall at what is today San Pedro, taking on fresh water and other supplies. He did not explore the area, but sailed

[54] Johnston, B.E. 1962. California's Gabrieliño Indians. Frederick Webb Hodge Anniversary Publication Fund, vol. VII. Los Angeles: Southwest Museum.
[55] Heizer, R.F. and S.F. Cook. 1952. Fluorine and other chemical tests of some North American human and fossil bones. American Journal of Physical Anthropology 10 (3): 289-393.

on[56]. Historic development and project area chronology after this time is detailed in Section 2.7, Historic Resources.

#### 2.8.2.2 Archaeological APE

The archaeological APE encompasses all current and proposed right-of-way on North Spring Street at the Los Angeles River. New right-of-way would be needed along both sides of North Spring Street to accommodate construction of viaduct approaches. The archaeological APE for the proposed project was formulated in conjunction with Caltrans and the City, and entails that area of the proposed project that would be physically disturbed by the proposed project (see *Figure 2-28*).

##### *Research Methods*

Cultural resource records, maps, and reports pertaining to the project area prehistory and history were reviewed by a URS Corporation Archaeologist in conjunction with the SCCIC on March 30, 2002, at the SCCIC of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. The review included an area of 0.5-mile radius surrounding the proposed project APE. In addition, the following local, state, and federal cultural resource inventories were reviewed: *National Register of Historic Places, California Points of Historical Interest* (PHI), the NRHP, the *California State Historical Inventory* (HRI), and the list of Los Angeles HCMs, and the Caltrans Statewide Bridge Inventory (Historical Significance – Local Agency Bridges, October 1, 2001).

Historic maps and photographs, information from local informants, and a draft archeological technical report entitled Los Angeles to Pasadena Metro Blue Line Project: Phase 2 Cultural Resources Investigations of the Zanja Madre located in the LASHP were also reviewed[57, 58].

##### *Research Results*

Background research revealed the presence of 44 historic cultural resources (built environment and archaeological resources) within 0.5 mile of the project area; these are primarily built environment resources (i.e., buildings and structures). The North Spring Street Viaduct itself is an historic cultural resource. A segment of the historic Union Pacific Railroad (UPRR) (P-19-186110) lies within the project APE. A portion of Los Angeles HCM No. 82, the "River Station Area/ Southern Pacific Railroad," is located within the project APE. The SCCIC's records show

[56] Beck, Warren A. and Ynez D. Haase. 1974. *Historical Atlas of California*, University of Oklahoma Text, Norman.
[57] Horne, M.C., et al. 2000. Los Angeles to Pasadena Metro Blue Line Project: Phase 2 Cultural Resources Investigations of the Zanja Madre, located in the Cornfield Yard of Los Angeles. Prepared by M. Horne, D. Livingstone, and D. McDougall of Applied EarthWorks, Inc. for Myra L. Frank & Associates, on behalf of the Los Angeles to Pasadena Metro Blue Line Construction Authority. September 2000.
[58] Sanborn Fire Insurance Maps. Los Angeles County, 1888, 1894, 1906.

that six general area overviews have also been conducted on the United States Geological Survey (USGS) 7.5-minute quadrangle of Los Angeles.

SCCIC Record Results

Based on the records search map prepared by the SCCIC, it appears that five of the five area-specific studies were conducted within or immediately adjacent to the proposed project APE, as shown in *Table 2-21*.

**Table 2-21 Previous Surveys Conducted in Project Vicinity**

| Archaeological Study | Author/Date | Description | Resources Identified |
|---|---|---|---|
| LA2950. | Peak and Associates, 1992 | Linear survey for the proposed Pacific Pipeline Project. The study bisects the Project APE. | None |
| LA4042 | G. Romani, Compass Rose, 1998 | Phase I Archaeological Survey: 219-233 Avenue 18, Los Angeles, California | None |
| LA4044. | City of Los Angeles, 1995 | Environmental Impact Report prepared for the Seismic Retrofit of Olympic Boulevard and North Broadway Bridges over the Los Angeles River | None |
| LA4218. | L. Portia, No Date | Seismic Retrofit of North Broadway Bridge of the Los Angeles River | None |
| LA4389. | Engineering Management Consultants, 1992 | Metro Pasadena Project Preliminary Engineering Structural Feasibility for the Los Angeles River Crossing. | None |

With the exception of one linear survey (LA2950) that bisected the project APE, the project APE had not been previously subjected to intensive pedestrian survey for cultural resources. The following archaeological resources have been identified within the project APE, as shown in *Table 2-22*.

**Table 2-22 Archaeological Resources Identified in Project APE**

| Site Number | Description | Affected by the Project |
|---|---|---|
| **P-19-003100** | Historic artifact scatter associated with the Southern Pacific Railroad (SPRR) Company's River Station Pacific Depot and Hotel, which operated in the immediate vicinity in the late 1800s and early 1900s. The State Historic Park is listed as Los Angeles Cultural Landmark #82 for its historic use as the River Station/Southern Pacific Railroad site. | May have subsurface components that may be affected by the project. |
| **P-19-003101** | Historic artifact scatter associated with the Southern Pacific Railroad (SPRR) Company's River Station Pacific Depot and Hotel, which operated in the immediate vicinity in the late 1800s and early 1900s. The State Historic Park is listed as Los Angeles Cultural Landmark #82 for its historic use as the River Station/Southern Pacific Railroad site. | This resource is a portion of an historic water conveyance feature, known as the "Zanja Madre." |
| **P-19-003103** | This resource is a portion of an historic water conveyance feature, known as the "Zanja Madre." | This resource is a portion of an historic water conveyance feature, known as the "Zanja Madre." |

Research efforts identified that two previously recorded archaeological sites are located within a 0.5-mile radius of the project area. These sites may have components that extend into the project APE, as shown in *Table 2-23*.

**Table 2-23 Archaeological Sites Identified within 0.5 Mile of Project APE**

| Site Number | Description | Affected by the Project |
|---|---|---|
| P-19-002828 | Historic archaeological site consists of a buried deposit of ceramics, glass, faunal bone and shell, metal, coal and roof tile | May have subsurface components that may be affected by the project. |
| P-19-003102 | This resource consists of a portion of a brick wall or foundation and an associated historic artifact concentration | May have subsurface components that may be affected by the project. |

The SCCIC's review of the list of the California PHI revealed one listing located within a 0.5-mile radius, as shown in *Table 2-24*.

**Table 2-24 California Places of Historic Interest within 0.5 Mile of Project APE**

| California PHI | Description | Location | Affected by Project |
|---|---|---|---|
| San Antonio Winery | Built in 1917, this group of historic buildings is the last of more than 100 producing wineries that once occupied the Los Angeles River Basin. | Lamar Street | No. Property is located outside the Project APE |

A review of the list of California Historical Landmarks revealed one listing, as shown in *Table 2-25*.

**Table 2-25 California Historical Landmarks within 0.5 Mile of Project APE**

| California Historic Landmarks (CHL) | Description | Location | Affected by Project |
|---|---|---|---|
| CHL No. 655 (P-19-174919). | Portola Trail Campsite (No.1) | Near the entrance to Elysian Park | No. Property is located outside the Project APE |

A review of the list of Los Angeles HCMs revealed three properties located within the project APE.

- **No. 82.** This monument, listed as the "River Station Area/Southern Pacific Railroad," is defined as the area between North Broadway, North Spring Street, the Los Angeles River, and the Capitol Milling Company Building. This area, declared a Los Angeles HCM in 1971, at one time contained many vestiges of 19th century railroading, including freight yards, warehouses, tracks, and cobblestone pavement. The project APE includes a portion of this area.

- **No. 872.** This monument is known as the Raphael Junction Block Building (New York Suspender Factory-Ice Company) and is located at 1635 North Spring Street, and was designated a Los Angeles HCM in May 2007. This monument is located within the project APE and would be demolished under Build Alternative 3.
- **No. 900.** North Spring Street Viaduct, which is part of the proposed project, was listed as a Los Angeles HCM in January 2008. Built in 1928, the North Spring Street Viaduct was constructed by the City's BOE as part of the City Beautiful Movement and under the famed bridge building program of Merrill Butler, Engineer of Bridges and Structures. The North Spring Street Viaduct is part of a monumental bridge building program dating from 1909 to 1944 that oversaw the construction of several bridges across the Los Angeles River. The viaduct is an example of the Beaux-Arts style.

A review of the list of Los Angeles HCMs revealed five properties within approximately 0.5 mile of the project APE, as shown in *Table 2-26*.

**Table 2-26 Los Angeles HCMs within 0.5 Mile of Project APE**

| LACM Number | Description | Location | Affected by Project |
|---|---|---|---|
| No. 156. (P-19-156358). | Fire Station No. 1 | 2230 Pasadena Avenue | No. Property is located outside the Project APE |
| No. 211 | Granite-Block Paving | Short portion of Bruno Street between Alameda and North Main Streets. | No. Property is located outside the Project APE |
| No. 281 (P-19-175256). | Cathedral High School | 1253 Bishop Road | No. Property is located outside the Project APE |
| No. 442 | Albion Cottages & Milagro Market | 1801, 1803, 1805, 1809, and 1813 Albion Street | No. Property is located outside the Project APE |
| No. 587 | Lincoln Heights Jail/ Los Angeles City Jail | 401-449 North Avenue 19 | No. Property is located outside the Project APE |

## 2.8.3 Environmental Consequences

### 2.8.3.1 No Build Alternative

There would be no impacts to archeological resources under this alternative.

### 2.8.3.2 Build Alternatives 1, 2, and 3

Build Alternatives 1, 2, and 3 have very low potential for encountering buried archaeological materials as each of these alternatives involve minor excavation and earth-shaping activities in previously disturbed areas. None of the historic cultural resources revealed in the background research would be affected by Build Alternatives 1, 2, and 3, with the exception of the North Spring Street Viaduct. This historic viaduct is the focus of the proposed project. A segment of

the UPRR lies within the project APE. The UPRR runs directly under the viaduct; however, this resource would not be permanently affected by the build alternatives.

### 2.8.4 Construction Impacts

As mentioned above, Build Alternatives 1, 2, and 3 have very low potential for encountering buried archaeological materials as each of these alternatives involve minor excavation and earth-shaping activities in previously disturbed areas.

### 2.8.5 Cumulative Impacts

With implementation of standard avoidance and minimization measures, the proposed project would not be expected to result in any impacts on archaeological resources. In addition, Caltrans, the City, and other agencies with jurisdiction over projects planned in the area have measures in place to avoid or minimize cumulative archaeological impacts, similar to the measures that apply to this proposed project. Therefore, the project contribution to cumulative archaeological impacts would be less than cumulatively considerable.

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

If cultural materials were to be discovered during construction, it is the policy of Caltrans that all earth-moving activity within and around the immediate discovery area would be diverted until a qualified archaeologist can assess the nature and significance of the find. If human remains were to be discovered, State 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 contacted.

Pursuant to PRC Section 5097.98, if human remains were to be found that could be Native American, the coroner would notify the NAHC who would then notify the Most Likely Descendent (MLD). At this time, the person who discovered the remains would contact the Caltrans Division of Environmental Planning so that they may work with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC 5097.98 would be followed as applicable.

# 2.9 Hydrology, Floodplains, Water Quality, and Storm Water Runoff

This section addresses potential impacts associated with stormwater drainage systems, floodplains, and water quality that could result from implementation of the proposed project.

## 2.9.1 Regulatory Setting

### 2.9.1.1 Hydrology and Floodplain

Executive Order 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 FHWA requirements for compliance are outlined in 23 CFR 650 Subpart A. In order 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; and values impacted 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."

### 2.9.1.2 Water Quality and Storm Water Runoff

#### *Federal Regulations*

Clean Water Act (CWA) of 1972

The CWA is the cornerstone of surface water quality protection in the U.S. and employs a variety of regulatory and non-regulatory tools to reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. These tools are employed to achieve the broader goal of restoring and maintaining the chemical, physical, and biological integrity of the nation's waters. The nationwide implementation of the CWA is the responsibility of the U.S. Environmental Protection Agency (U.S. EPA).

*Section 303(d) of the CWA*

Pursuant to the CWA, the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCB) are required to assess the quality of water bodies every two years and list water bodies that have been determined to be impaired on the CWA Water Quality Limited Segments 303(d) List. Based on this list, the RWQCBs are required to develop and implement Total Maximum Daily Loads (TMDLs). See Section 2.9.1.2, Applicable Water

Quality Standards, for detailed information regarding 303(d) listed water bodies and TMDLs applicable to the proposed project.

*Section 401 of the CWA*

Section 401 of the CWA requires that any applicant for a federal permit that involves activities resulting in a discharge to waters of the U.S. shall provide a certification from the state in which the discharge is proposed. The state certification needs to conclude that the discharge would comply with the applicable provisions under the CWA. Therefore, before the ACOE can issue a Section 404 permit, applicants must apply for and receive a CWA Section 401 Water Quality Certification. In California, the SWRCB and the RWQCBs administer the CWA Section 401 Water Quality Certification program.

*Section 402 of the CWA, National Pollutant Discharge Elimination System Program*

The CWA makes it illegal to discharge pollutants from a point source to the waters of the U.S. Section 402 of the CWA creates the National Pollutant Discharge Elimination System (NPDES) regulatory program. This is the primary implementation program for regulating discharges of pollutants to waters of the U.S. Point sources must obtain a discharge permit from the proper authority (usually a state, sometimes the U.S. EPA, a tribe, or a territory).

The NPDES permit programs in California are administered by the SWRCB and by nine RWQCBs that issue NPDES permits and enforce regulations within their respective region. The proposed project lies within the jurisdiction of the Los Angeles RWQCB. The NPDES permits set limits on the amount of various pollutants that a source can discharge at a given time. In addition, through the NPDES regulatory program, an NPDES permit is required for storm water discharge from storm drain systems, construction sites that disturb one acre or more and industrial facilities.

*Section 404 of the Clean Water Act*

Section 404 provides that impacts to jurisdictional wetlands and other waters of the U.S. from the discharge of dredge or fill material associated with construction, excavation, or deposition of materials in, over, or under such waters are regulated by the ACOE. Because there would be disturbance to jurisdictional waters of the U.S., a Section 404 permit from the ACOE would be needed. It is anticipated that permitting would be accomplished through use of Nationwide Permit 14 (Linear Transportation Project).

### *State Regulations*

Porter-Cologne Water Quality Control Act

Division 7 of the California Water Code, also known as the Porter-Cologne Water Quality Control Act, contains provisions that cover water quality protection and management for waters

of the State. The act establishes the SWRCB and the nine RWQCBs as the principal state agencies responsible for the protection and, where possible, the enhancement of the water quality. The SWRCB sets statewide policy, and together with the RWQCBs, implements state and federal laws and regulations pertaining to water quality.

Statewide General Construction Activity Storm Water Permit

Construction activities disturbing one acre or more are required to comply with the SWRCB General Construction Activity Storm Water Permit (Construction General Permit) (NPDES No. CAS000002, Order No. 99-08-DWQ). This requires the preparation and approval of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must include the implementation of Best Management Practices (BMP) that would reduce the potential for discharge of accidental and/or implicit pollutants into the storm drain system during grading and construction. The BMPs are designed to maintain construction areas in such a condition that storm flows do not carry wastes or pollutants off-site. The Construction General Permit requires that these BMPs be in place prior to issuance of a grading permit.

The Construction General Permit requires water quality sampling in the event of a breach, malfunction, leakage, or spill which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water. In addition, BMPs must be designed to achieve the Best Available Technology/Best Conventional Pollutant Control Technology (BAT/BCT) standard set out in the permit. (Water Quality Order 99-08-DWQ, § C.2) In the event that BMPs do not protect water quality, the permit requires the discharger to notify the RWQCB and to implement corrective measures. (Water Quality Order 99-08-DWQ, § B.3.a) Therefore, operation under the stormwater permit would ensure protection of water quality. (Water Quality Order 99-08-DWQ, § C.2)

Fish and Game Code, Sections 1601-1603

Construction within the annual high water mark of a wash, stream, or lake which does now or once did contain fish, wildlife and or riparian vegetation requires that the California Department of Fish and Game (CDFG) be notified. Alterations of stream bottoms would require that a Streambed Alteration Agreement be developed with the CDFG. Under Sections 1601-1603 of the California Fish and Game Code, the CDFG must be notified prior to any project that would divert, obstruct or change the natural flow, bed, channel or bank of any river, stream or lake. Preliminary notification and project review generally occur during the environmental process. A separate agreement is required for each crossing with characteristics that meet the criteria for alteration of the natural state within the mean high water mark.

California Toxics Rule (CTR) 65 Federal Regulation 31682 (40 CFR 131.38)

On May 18, 2000, the U.S. EPA established numeric criteria for priority toxic pollutants for the State of California (CTR), for the protection of human health and aquatic life. The U.S. EPA put this rule into effect to fill the gap in California water quality standards that was created in 1994 when a State court overturned the State's water quality control plans that contained water quality criteria for priority toxic pollutants. These numeric criteria apply as ambient water quality criteria for inland surface waters, enclosed bays, and estuaries. The SWRCB adopted the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California – 2000, on March 2, 2000, for implementation of the CTR (SWRCB Resolution No. 2000-15 as amended by Board Resolution No. 2000-030).

### *Local Regulations*

LA Municipal Storm Water Permit

Discharges of storm water and urban runoff from the Los Angeles are regulated by the Los Angeles RWQCB Order No. 01-082 (NPDES Permit No. CAS004001), which is the Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges (LA Municipal Storm Water Permit).

To comply with the LA Municipal Storm Water Permit, the City requires Planning Priority Projects[59] within their jurisdiction to incorporate post-construction storm water treatment control BMPs into project plans. The LA Municipal Storm Water Permit also requires the City to implement these measures for their own projects[60]. Nine categories of projects and redevelopment projects[61] are defined as Planning Priority Projects. Generally, redevelopment is defined as land-disturbing activity on an already developed site that results in the creation, addition, or replacement of 5,000 square feet or more of impervious surface.

The design criteria for treatment control BMPs are[62]:

*Volume-Based Treatment Control BMPs*

- The 85th percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or
- The volume of runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Storm Water Best Management Practices Handbook-Industrial/Commercial (1993); or

[59] LARWQCB Order No. 01-082, Part 4.D.4, Applicability of Numerical Design Criteria.
[60] LARWQCB Order No. 01-082, Part 4.F.2.a, Public Construction Activities Management.
[61] LARWQCB Order No. 01-082, Part 4.F.7, Redevelopment Projects.
[62] LARWQCB Order No. 01-082, Part 4.D.3, Numerical Design Criteria.

- The volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system; or
- The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for "treatment" (0.75 inch average for Los Angeles County) that achieves approximately the same reduction in pollutant loads achieved by the 85$^{th}$ percentile 24-hour runoff event.

*Flow-Based Treatment Control BMPs*

- The flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity; or
- The flow of runoff produced from a rain event equal to at least two times the 85$^{th}$ percentile hourly rainfall intensity for Los Angeles County; or
- The flow of runoff produced from a rain event that would result in treatment of the same portion of runoff as treated using volume-based standards.

Los Angeles RWQCB NPDES Permit

The Los Angeles RWQCB NPDES Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties (Order No. R4-2008-0032, General NPDES Permit No. CAG994004).

On June 5, 2008, the Los Angeles RWQCB adopted Order No. R4-2008-0032 (General NPDES Permit No. CAG994004) to regulate discharges of treated and untreated groundwater from construction and other projects dewatering to surface waters. This permit also includes provisions for creek-side construction dewatering discharge. Under Order No. R4-2008-0032, dischargers are required to collect a representative groundwater sample(s) and analyze the sample for all constituents listed in the order. Based on the results, dischargers would be required to provide treatment for any toxic compounds detected above the applicable screening levels. To be covered under Order No. R4-2008-0032 a discharger must:

1. Demonstrate that pollutant concentrations in the discharge shall not cause violation of any applicable water quality objective for the receiving waters, including discharge prohibitions;
2. Demonstrate that discharge shall not exceed the water quality criteria for toxic pollutants, and there shall be no reasonable potential to cause or contribute to a deviation above the criteria.
3. Perform reasonable potential analysis using a representative sample of groundwater to be discharged. The sample shall be analyzed and the data compared to the water quality screening criteria indicated in the Order. If the analytical results exceed the water quality screening criteria then a reasonable potential for discharge of toxics would be considered to exist.

To be authorized to discharge under Order No. R4-2008-0032, a new discharger must file a complete application at least 45 days before commencement of the discharge. Discharge may not commence until receipt of the Executive Officer's written determination of eligibility for coverage under the general permit or until an individual NPDES permit is issued by the Los Angeles RWQCB.

Water Quality Control Plan, Los Angeles Region

The Water Quality Control Plan, Los Angeles Region (Basin Plan) designates beneficial uses of surface waters and groundwater, sets water quality objectives to protect those uses, addresses localized water quality problems, and lays out a plan for water quality protection[63] for the geographical area under the jurisdiction of the LARWCB. Therefore, the project is subject to requirements of the Basin Plan.

City of Los Angeles Storm Water Management Plan

Part 4.F.2 of the LA Municipal Storm Water Permit requires that all public projects must meet the same requirements that are imposed on private development projects. These requirements are also delineated in the City's Storm Water Management Plan as follows:

1. Implement the Development Planning Program requirements (Permit Part 4.D) at public construction projects.
2. Implement the Development Construction Program requirements (Permit Part 4.E) at public construction sites.

### *Applicable Water Quality Standards*

Under the CWA, the U.S. EPA requires states to adopt water quality standards necessary to attain or continue to achieve the designated uses of surface and ground waters. The SWRCB develops guidance for complying with the CWA. This guidance is used by the nine RWQCBs to prepare Water Quality Control Plans (WQCP) (commonly referred to as Basin Plans), which designate the beneficial uses of regional receiving waters, set water quality objectives, and formulate regional water quality management programs for surface waters and ground waters. The Los Angeles RWQCB adopted a WQCP for the Los Angeles Region (Los Angeles RWQCB, 1994) that identified beneficial uses and water quality objectives for the Los Angeles River and Central Groundwater Basin which are summarized in *Tables 2-27* and *2-28*. *Table 2-27* contains the numeric objectives and *Table 2-28* contains the narrative objectives.

The proposed project is located along Reach 2 of the Los Angeles River defined in the Basin Plan as extending from Carson Street to Figueroa Street. This reach of the Los Angeles River has impaired water quality due to runoff from dense clusters of commercial, industrial, and

[63] LARWCB, Water Quality Control Plan, Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties, adopted June 13, 1994.

residential development and other urban activities. The 2006 303(d) list of impairments for Reach 2 of the Los Angeles River includes impairments due to coliform bacteria and oil.

The CWA requires that TMDLs be established for water bodies included in this list. The following TMDLs have been adopted or are in development by the Los Angeles RWQCB for the Los Angeles River:

- Trash: In effect September 23, 2008; Basin Resolution No. 2007-012;
- Nutrients: TMDL for nutrients (nitrogen compounds), ammonia, pH, algae, odors, scum/ foam and toxicity; in effect September 27, 2004; Basin Plan Resolution No. 2003-016;
- Metals: TMDL for metals such as copper, lead, zinc, aluminum, and cadmium was approved by the SWRCB on June 17, 2008; Basin Plan Resolution No. 2007-014;
- High Coliform Count: The anticipated date of completion for this TMDL is 2009; and,
- Oil: The anticipated date of completion for this TMDL is 2019.

The CTR promulgates numeric aquatic life criteria for 23 priority toxic pollutants, numeric human health criteria for 57 priority toxic pollutants, and a compliance schedule provision which authorized the State to issue schedules of compliance for new or revised NPDES permit limits based on the federal criteria when certain conditions are met. The CTR can be found at http://www.epa.gov/ost/standards/ctr/toxic.pdf.

### 2.9.2 Affected Environment

A Location Hydraulic Study was prepared (Psomas, February 2011) to identify the existing hydrology of the project area and analyze potential impacts to hydrology and floodplains resulting from the proposed project.

The Los Angeles River is the principal surface water resource in the proposed project area. It flows from its headwaters in the mountains eastward to the northern corner of Griffith Park where the channel turns southward through the Glendale Narrows before it flows across the coastal plain and into the San Pedro Bay near Long Beach. The river drains about 2,135 square kilometers (834 square miles) from the eastern portions of Santa Monica Mountains, Simi Hills, and Santa Susana Mountains to the San Gabriel Mountains in the west. The San Gabriel Mountains, consisting of rugged mountains with deeply dissected canyons, are the most prominent range in the region.

Eroded sediments from these mountains have formed prominent alluvial fans in low-lying areas such as the San Fernando Valley, San Gabriel Valley, Oxnard Plain, and the Los Angeles Coastal Plain. Many of these sediment layers form aquifers that are important sources of groundwater in the Los Angeles region. The Los Angeles Coastal Plain consists of the West Coast and Central Basins.

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## Table 2-27 Beneficial Uses and Water Quality Objectives for Los Angeles River

| Surface Water Body | Existing Beneficial Uses | Numeric Water Quality Objectives | | |
|---|---|---|---|---|
| | | **Constituent** | **Objective** | **Detail/ Comment** |
| Los Angeles River | (MUN) Municipal and Domestic Supply (Drinking, etc.)<br>(IND) Industrial Service Supply (Fire Protection, Hydraulic Conveyance)<br>(REC-1) Contact Recreation and Canoeing and Rafting<br>(REC-2) Other Non-contact Recreation<br>(GWR) Groundwater Recharge<br>(WARM) Warm Freshwater Habitat<br>(WILD) Wildlife Habitat<br>(WET) Wetland Habitat | Ammonia | Shall not exceed limits designated in Tables 3-2 and 3-4 in the Los Angeles Region Basin Plan. | Affects all surface water bodies. |
| | | Bacteria (fecal coliform) | Shall not exceed a log mean of 200/100 ml | Due to REC-1 beneficial use designation. Based on minimum of not less than 4 samples for any 30-day period. |
| | | Bacteria (fecal coliform) | 400 count per 100 ml | Due to REC-1 beneficial use designation. For > 10% of samples for a 30-day period. |
| | | Bacteria (fecal coliform) | Shall not exceed a log mean of 2000/100 ml | Due to REC-2 beneficial use designation. Based on minimum of not less than 4 samples for any 30-day period. |
| | | Bacteria (fecal coliform) | 4000 count per 100 ml | Due to REC-2 beneficial use designation. For > 10% of samples for a 30-day period. |
| | | Bacteria (fecal coliform) | The concentration of coliform organisms over any 7-day period shall be less than 1.1/100 ml. | In groundwater's used for domestic or municipal supply. |
| | | Chlorine, Total Residual | Shall not exceed 0.1 mg/L | Affects all surface water discharges. |
| | | Methylene Blue Activated Substances (MSAS) | Shall not exceed 0.5 mg/l | Due to Beneficial Use as a Municipal and Domestic Supply. |
| | | Mineral Quality | Shall not exceed limits designated in Table 3-8 in the Los Angeles Region Basin Plan for the section of the Los Angeles River Watershed between Figueroa Street and Los Angeles River Estuary (Willow Street). | Affects all surface water bodies. |
| | | Mineral Quality | Shall not exceed limits designated in Table 3-10 in the Los Angeles Region Basin Plan for the Central Basin of the Los Angeles Coastal Plain. | Affects all groundwater. |

| Surface Water Body | Existing Beneficial Uses | Numeric Water Quality Objectives | | |
|---|---|---|---|---|
| | | **Constituent** | **Objective** | **Detail/ Comment** |
| | | Nitrogen (Nitrate, Nitrite) | Waters shall not exceed 10 mg/l nitrogen as nitrate-nitrogen plus nitrite-nitrogen ($NO_3$-N + $NO_2$-N), 45 mg/L as nitrate ($NO_3$), 10 mg/L as nitrate-nitrogen ($NO_3$-N), or 1 mg/L as nitrite-nitrogen ($NO_2$-N) or as otherwise designated in Table 3-8 of the Los Angeles Region Basin Plan. | Affects all surface water bodies. |
| | | Nitrogen (Nitrate, Nitrite) | Waters shall not exceed 10 mg/l nitrogen as nitrate-nitrogen plus nitrite-nitrogen ($NO_3$-N + $NO_2$-N), 45 mg/L as nitrate ($NO_3$), 10 mg/L as nitrate-nitrogen ($NO_3$-N), or 1 mg/L as nitrite-nitrogen ($NO_2$-N). | Affects all groundwater. |
| | | Dissolved Oxygen | Mean annual concentration shall be greater than 7.0 mg/l, and no single determination shall be less than 5.0 mg/L, except in natural conditions. | Affects all surface water bodies. |
| | | Dissolved Oxygen | Shall not be reduced below 5.0 mg/l for Warm Freshwater Habitat | Due to Beneficial Use as Warm Freshwater Habitat. |
| | | pH | Not to be raised above 8.5 or be depressed below 6.5 | Affects all surface water bodies. |
| | | pH | Changes in normal ambient pH levels shall not exceed 0.5 | Affects all surface water bodies. |
| | | Polychlorinated Biphenyls (PCBs) | Shall not exceed 70 pg/L (30 day average) for protection of human health and 14 ng/L and 30 ng/L (daily average) to protect aquatic life. | Pass-through or uncontrollable discharges to waters of the Region or at locations where the waste can subsequently reach water of the Region. |
| | | Temperature | At anytime, anyplace not to be incr. $5^{o}$ F above natural temperatures and at no time be raised above $80^{o}$ F as a result of waste discharges. | Due to Beneficial Use as a Warm Freshwater Habitat.<br>See also the *Water Quality Control Plan for Control of Temperature in the Coastal ad Interstate Waters and Enclosed Bays of CA.* |
| | | Temperature | Shall not be altered unless it can be demonstrated to the RWQCB that the alteration would not adversely affect beneficial uses | Affects all surface water bodies.<br>See also the *Water Quality Control Plan for Control of Temperature in the Coastal ad Interstate Waters and Enclosed Bays of CA.* |

| Surface Water Body | Existing Beneficial Uses | Numeric Water Quality Objectives | | |
|---|---|---|---|---|
| | | **Constituent** | **Objective** | **Detail/ Comment** |
| | | Toxicity | Average survival in undiluted effluent for any three consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, with no single test having less than 70% survival when using an established USEPA, SWRCB, or other protocol authorized by the RWQCB. | Affects all surface water bodies. |
| | | Turbidity | Increase not to exceed 20% where natural turbidity is between 0 and 50 NTU and 10% where natural turbidity is greater than 50 NTU. | Affects all surface water bodies. Allowable zones of dilution within which higher concentrations can be tolerated may be defined for each discharge in specific Waste Discharge Requirements. |

## Table 2-28 Narrative Water Quality Objectives for Los Angeles River

| Constituent | Affected Water Bodies | Objective | Detail/ Comment |
|---|---|---|---|
| Ammonia | Groundwater | Shall not be present at levels that when oxidized to nitrate, pose a threat to groundwater. | - |
| Bioaccumulation | All surface water bodies | Shall not be present at levels that would bioaccumulate in aquatic life to levels which are harmful to aquatic life or human health. | - |
| Biochemical Oxygen Demand (BOD5) | All surface water bodies | Shall be free of substances that result in increases in the BOD which adversely affect beneficial uses. | - |
| Biostimulatory Substances | All surface water bodies | Shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growth causes nuisance or adversely affects beneficial uses. | - |
| Chemical Constituents | All surface water bodies | Shall not contain concentrations of chemical constituents in amounts that adversely affect any designated beneficial use. | - |
| Chemical Constituents | All surface water bodies | Waters designated for domestic or municipal supply shall not contain conc. of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Table 64431-A of Section 64431 (inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), and Table 64444-A of Section 64444 (Organic Chemicals) (Tables 3-5, 3-6, and 3-7 of the Los Angeles Region Basin Plan). | - |
| Chemical Constituents | Groundwater | Groundwater's used for domestic or municipal supply shall not contain conc. of chemical constituents in excess of the limits specified in California Code of Regulations, Title 22, Table 64431-A of Section 64431 (inorganic Chemicals), Table 64431-B of Section 64431 (Fluoride), and Table 64444-A of Section 64444 (Organic Chemicals) and Table 4 of Section 64443 (Radioactivity) (Tables 3-5,3-6, and 3-7 and 3-9 of the Los Angeles Region Basin Plan). | - |
| Chlorine, Total Residual | All surface water bodies | Shall not persist in receiving waters at any concentration that causes impairment of beneficial uses. | - |
| Color | All surface water bodies | Free of discoloration that adversely affects beneficial use. | - |
| Exotic Vegetation | All surface water bodies | Shall not be introduces around stream courses to the extent that such growth causes nuisance or adversely affects beneficial uses. | - |

| Constituent | Affected Water Bodies | Objective | Detail/ Comment |
|---|---|---|---|
| Floating Material | All surface water bodies | Shall not contain material in amounts that cause a nuisance or adversely affect beneficial uses. | Includes solids, liquids, foams and scum. |
| Oil and grease | All surface water bodies | Shall not contain oils, greases, waxes, or other materials in conc. that cause a nuisance, result in a visible film or coating on the surface or on objects in the water, that cause nuisance, or otherwise adversely affect beneficial use. | - |
| Pesticides (individual or combination) | All surface water bodies | Not to affect Beneficial Uses for water bodies, sediments or aquatic life. | - |
| Pesticides (individual or combination) | All surface water bodies | No increase in pesticide concentrations found in bottom sediments or aquatic life. | - |
| Pesticides (individual or combination) | Surface water bodies designated for domestic and municipal supply | Waters for domestic or municipal supply must not contain pesticide levels in excess of those listed in the California Code of Regulations, Title 22, Section 64444, Table 64444-A (Organic Chemicals) (Table 3-7 or the Los Angeles Region Basin Plan). | - |
| Polychlorinated Biphenyls (PCBs) | All surface waters | Purposeful discharge is prohibited | - |
| Radioactive Substances | All surface water bodies | Shall not be present in conc. deleterious to human, plant, animal or aquatic life, nor result in accumulation through the food web to an extent that presents such a hazard. | Waters for domestic or municipal supply must not contain radionuclide levels in excess of those listed in the California Code of Regulations, Title 22, Division 4, Chapter 15, Article 4, Section 64443, Table 4. |
| Radioactive Substances | Groundwater | Groundwater for domestic or municipal supply must not contain conc. of radio nuclides in excess of those limits specified in the California Code of Regulations, Title 22, Division r, Chapter 15, Article 5, Section 64443, Table 4 and listed in Table 3-9 of the Basin Plan. | - |
| Solid, Suspended, or Settleable Materials | All surface water bodies | Shall not contain suspended or settleable material in conc. that cause nuisance or adversely affect beneficial uses. | - |
| Tastes and Odors | All surface water bodies | Waters shall not contain taste- or odor-producing substances in conc. that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, or that cause nuisance or adversely affect beneficial uses. | - |

| Constituent | Affected Water Bodies | Objective | Detail/ Comment |
|---|---|---|---|
| Tastes and Odors | Groundwater | Groundwater's shall not contain taste- or odor-producing substances in conc. that cause nuisance or adversely affect beneficial uses. | - |
| Temperature | All surface water bodies | Temp not to be altered unless demonstrated to Regional Water Board that change does not adversely affect beneficial use. | - |
| Toxicity | All surface water bodies | Not to reach concentrations that are toxic to, or produces detrimental physiological responses in human, plant, animal or aquatic life. | Compliance would be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Water Board. |
| Turbidity | All surface water bodies | Shall be free of changes that cause nuisance or adversely affect beneficial uses. | - |

The project site is located in the Central Basin. Groundwater currently provides about 40 percent of the total water used in the West Coast and Central Basins. Depth to groundwater in the Central Basin has been on average 108 feet from 1964 through 2002.

Prevailing winds come from the west and northwest carrying moist air from the Pacific Ocean inland until it is forced upward by the mountains. The resulting storms, common from November through March, are followed by dry periods during summer months. Differences in topography are responsible for large variations in temperature, humidity, precipitation, and cloud cover throughout the region. Precipitation in the region generally occurs as rainfall with snowfall occurring only at high elevations. Most precipitation occurs during just a few major storms. Large variations in annual rainfall exist within Los Angeles County, with annual highs of around 42 inches along the crest of the Angeles National Forest and annual lows of around 10 inches in the eastern Santa Clara River Valley. Annual rainfall in the city of Los Angeles has averaged 15.5 inches since measurements began in 1872.

The Los Angeles River Watershed has a diverse pattern of land use. Its upper portion (43 percent) is covered by forest or open space while the remainder is highly developed with commercial, industrial, or residential uses. The current flow in the river is effluent with approximately 80 percent of its flow originating from wastewater treatment facilities dischargers and the remaining from storm drain runoff and groundwater reaching the surface. In the project area, the Los Angeles River is concrete lined and flows in a southerly direction.

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel 06037C1628F, Effective Date September 26, 2008 (see *Figure 2-30*), the Los Angeles River is within a FEMA Zone A floodplain. FEMA defines a Zone A floodplain as having no base flood elevations determined. Just upstream of the project area, the FIRM panel indicates that the 1 percent Annual Chance Flood Discharge is contained within the Los Angeles River channel. *Figure 2-30* also shows that a portion of the project area is within Zone AE on the east overbank. Zone AE is defined by FEMA as having Base Flood Elevations determined.

To determine if the overbank flow was associated with the Los Angeles River, the City of Los Angeles Stormwater Section was contacted. Based on this conversation, it was concluded that the Zone AE flooding is most likely associated with a different discharge source than the Los Angeles River, and that the Los Angeles River flow is contained within the channel banks.

## 2.9.3 Environmental Consequences

### 2.9.3.1 No Build Alternative

No environmental consequences to storm drain systems, floodplains, or water quality would occur under the No Build Alternative.

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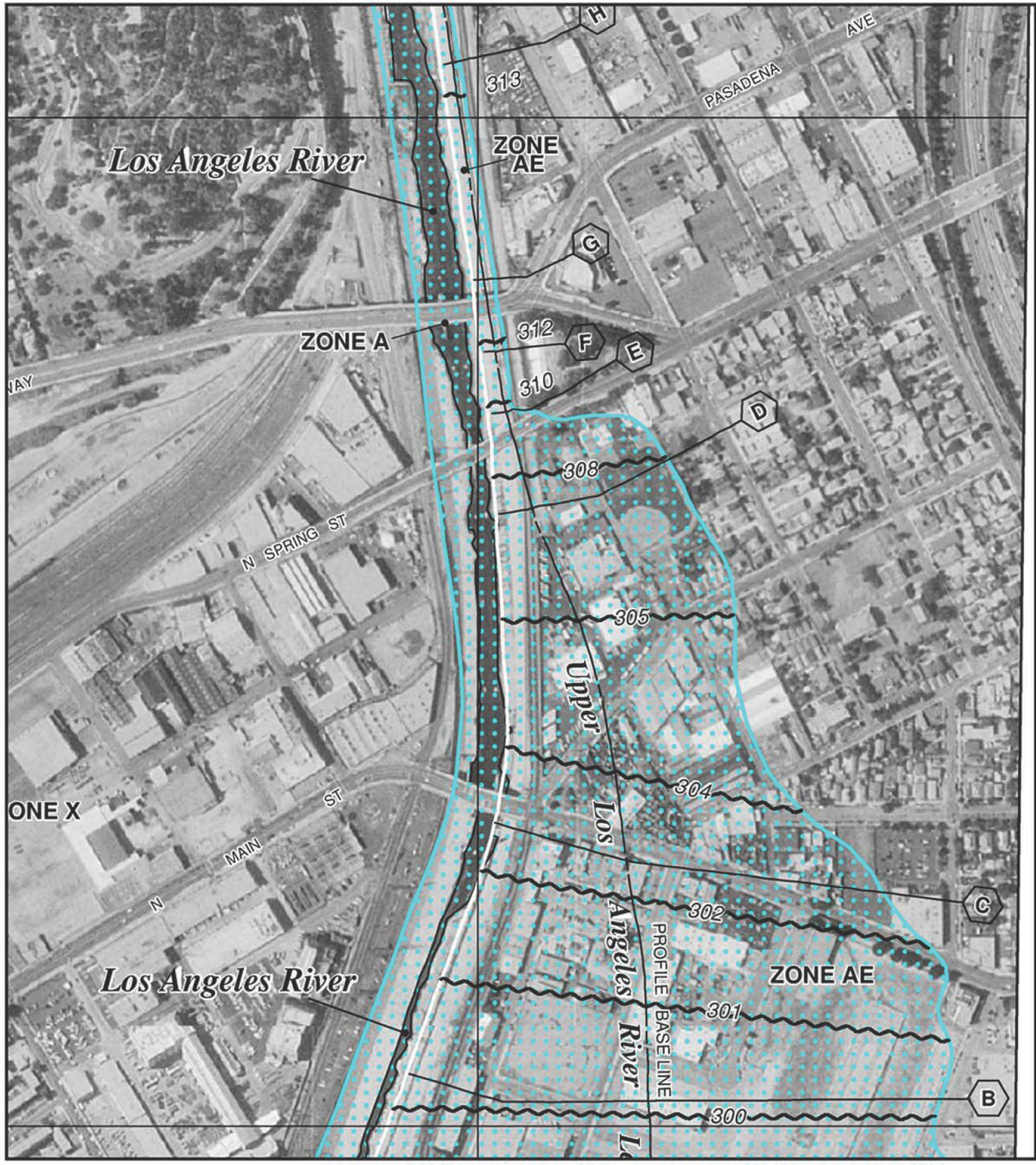


d insurance is available in this community, contact your ional Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1628F

# FIRM

## FLOOD INSURANCE RATE MAP

## LOS ANGELES COUNTY, CALIFORNIA

### AND INCORPORATED AREAS

**PANEL 1628 OF 2350**

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

| COMMUNITY | NUMBER | PANEL | SUFFIX |
|---|---|---|---|
| LOS ANGELES, CITY OF | 060137 | 1628 | F |

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

**MAP NUMBER**
**06037C1628F**

**EFFECTIVE DATE**
**SEPTEMBER 26, 2008**

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

LA DPW ENGINEERING

EXISTING FLOODPLAIN MAP

EA/ EIR NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-30

#### 2.9.3.2 Build Alternative 1

Build Alternative 1 would structurally retrofit the existing viaduct without widening. This alternative would not change the impervious surface area of the viaduct or the riverbed; thus, there would be no change in groundwater recharge, groundwater use, or groundwater quality resulting from the project. No environmental consequences to storm drain systems, floodplains, or water quality would occur under this alternative.

#### 2.9.3.3 Build Alternatives 2 and 3

##### *Floodplains and Hydrology*

Under Alternatives 2 and 3, the viaduct deck would be lengthened and the pier length would be extended downstream. The pier width would remain the same. Modeling was conducted to analyze how these features would impact hydrology and water surface elevation, and it was determined that extending the piers in length in the direction of flow within the channel would have a minimal impact on the base flood water surface elevation. The largest increase in water surface elevation resulting from the extended pier would be 0.35 feet, at a location downstream of North Spring Street. There would also be a minimal lowering of the water surface elevation between the North Spring Street Viaduct and the Broadway Bridge.

There would be no practicable alternative to conducting the proposed improvements within the floodplain, since the viaduct is an existing structure within the Los Angeles River. The analysis concluded that there would be no substantial risk associated with the project because the project would result in minimal changes to the base flood water surface elevation, the river is not the community's only evacuation route, and the pier extensions would not interrupt a transport facility during a flood event. Additionally, there would be no adverse impacts on the natural and beneficial floodplain since the flow in entirely contained within a concrete-lined channel, and the project would not encourage any additional development in the floodplain.

##### *Drainage*

Under these alternatives, the viaduct roadway would be widened by 40 feet. Since most of the area impacted by the widening is already covered by impervious surfaces (except for areas reclaimed from the Downey Recreation Center), these alternatives would not result in a substantial overall change in the amount of impervious surface area. However, drainage of the runoff would be altered since post-construction rain would fall on the expanded roadway rather than directly into the river or surrounding impervious area.

The existing drainage system for the proposed project area for all build alternatives would be maintained with some minor modifications to storm drain inlets and catch basins and is expected

to adequately convey additional runoff from the widened viaduct as well as Baker Street and Wilhardt Street extensions.

The section of the Los Angeles River over which the proposed project crosses is currently concrete-lined and would remain concrete-lined after project completion. Therefore, this section of the river is not utilized for groundwater recharge. The project would not change the permeability of surface of the riverbed; thus, there would be no change in groundwater recharge, groundwater use, or groundwater quality resulting from the project.

### *Pollutant Control*

The project is not expected to increase the amount of vehicular traffic crossing the viaduct; rather, the project is expected to reduce current congestion. Therefore, no increase in pollutant loading for the Los Angeles River from vehicular traffic is expected. *Table 2-29* below summarizes typical pollutants that may be found in storm water from roads and bridges if not controlled by post-construction phase BMPs.

**Table 2-29 Typical Storm Water Pollutants from Roads and Bridges**

| Product/Source | Pollutants |
|---|---|
| Exhaust products | oil and gas, Volatile organic compounds VOCs) |
| Brake pad dust | Metals |
| Tire residues | Metals |
| Leaks and spills of fuels, oil, antifreeze | oil and gas, VOCs |
| Landscape fertilizers and pesticides | Nutrients (nitrates, phosphates), VOCs |
| Litter, vegetation debris | Gross solids, sediment |

These pollutants would most likely enter the Los Angeles River through storm water runoff from the widened viaduct and extended Wilhardt Street and Baker Street roadways if the following BMPs are not implemented:

- Routine street sweeping in accordance with the City's sweeping schedule for specific roadway types;
- Landscape maintenance BMPs that include:
  - Minimization of fertilizer and pesticide overspray
  - Prohibition of fertilizer and pesticide application during storm events
  - Routine inspection and maintenance of irrigation system
  - Proper disposal of green waste

#### *Trash Increase*

The addition of pedestrian and cyclist traffic on the viaduct could result in a minor increase in trash released into the Los Angeles River. To address the trash TMDL that has been established for the Los Angeles River, trash receptacles would be placed along the pedestrian walkway to reduce littering.

### 2.9.4 Construction Impacts

#### 2.9.4.1 No Build Alternative

No construction impacts to storm drain systems, floodplains, or water quality would occur under the No Build Alternative.

#### 2.9.4.2 Build Alternatives

#### *Infrastructure Improvements*

Build Alternative 1 would involve pile driving, which would not entail soil removal. The construction of Build Alternatives 2 and 3 would involve soil-disturbing activities, which could increase the potential for erosion and the transport of loose soil materials to the Los Angeles River leading to increased sedimentation and pollutant loadings. Soil disturbing activities would be required to 1) relocate storm drains, and sewer lines on the north, as well as gas, sewer, and water lines on the south; 2) widen the existing viaduct piers in the river along the existing alignment; 3) divert water around the temporary viaduct construction supports (falsework posts) within the river channel; 4) extend the existing catch basin on the south side of the viaduct to accommodate the wider roadway; and 5) demolish structures along North Spring Street. In addition, groundwater may be encountered during drilling operations for the placement of piles. Therefore, coverage under the Los Angeles RWQCB NPDES Permit for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters (Dewatering Permit) may be necessary.

All construction activities would be conducted in compliance with the requirements of Construction General Permit, and Los Angeles RWQCB Dewatering Permit thus minimizing the potential of pollutant discharges from the construction site. Once clear water diversion is terminated, the widening of the existing pier in the channel bottom would not permanently alter the course of the river and would be conducted in a stretch of the river that it is currently and would remain concrete-lined.

The staging area for the proposed project would be at the southwest corner of the North Spring Street and Wilhardt Street intersection. There is an existing storm drain inlet on the east side of Wilhardt Street. A storm drain inlet on the west side of Wilhardt Street next to the staging area would be constructed and an existing storm drain inlet on the northeast corner of the North

Spring Street and Wilhardt Street intersection would be removed. All three of these storm drain inlets convey runoff to the Los Angeles River. To minimize pollutant discharges from the staging area to the Los Angeles River, appropriate storm drain inlet protection and materials storage and handling BMPs would be implemented in accordance with the proposed project's construction SWPPP as required by the Construction General Permit.

### *Construction Material and Waste Discharge*

The required construction work within and directly above the Los Angeles River would increase the possibility of construction materials and wastes discharging to the river and creating short-term impacts to water quality. To prevent or minimize the discharge of pollutants to the Los Angeles River during construction activities, appropriate materials and waste storage and handling and non-storm water management BMPs would be implemented in accordance with the project's construction SWPPP.

### *Accidental Spills and Leaks*

During construction, accidental spills and leaks of construction materials and wastes (concrete, paint, etc.) as well as fuels from equipment at the construction site and staging area could potentially be discharged into the Los Angeles River. The potential for the accidental discharge of pollutants due to spills and leaks would be minimized through the adoption of and strict adherence to appropriate site management, materials storage, and waste and handling BMPs as identified in the project's construction SWPPP.

### *Building Demolition and Grading*

The extension of Wilhardt Street from North Spring Street to Baker Street would require building demolition and grading; therefore, demolition debris could enter the storm drain system and eventually the Los Angeles River. The potential also exists for sediment to erode from exposed soils and be discharged into the storm drain system and Los Angeles River reducing water quality. *Table 2-30* summarizes typical construction site pollutants that could be present in storm water if not properly controlled by construction BMPs.

The discharge of these pollutants would be minimized with the implementation of appropriate non-storm water management, materials and waste management and erosion, sediment and tracking control BMPs as identified in the proposed project's construction SWPPP.

### *Compliance with Section F of MS4 Permit*

Since the proposed project would be undertaken by the City, it would comply with all conditions set forth in Part F of the LA Municipal Storm Water Permit, Public Agency Activities Program.

**Table 2-30 Typical Construction Site Pollutants**

| Category | Product/Activity | Pollutants |
|---|---|---|
| Masonry & Concrete | Dusts (Brick, Cement)<br>Colored Chalks (Pigments)<br>Concrete Curing Compounds<br>Glazing Compounds<br>Cleaning Surfaces | Acidity, Sediments, suspended solids<br>Metals<br>Asbestos |
| Painting | Paint Thinner, Acetone, MEK, Stripper<br>Paints, Lacquers, Varnish, Enamels<br>Turpentine, Gum Spirit, Solvents<br>Sanding, Stripping<br>Pigments, Dyes | Volatile organic compounds (VOCs)<br>Metals, Phenolics, Mineral Spirits<br>VOCs<br>Metals |
| Adhesives | Adhesives, Glues, Resins, Epoxy Synthetics<br>Calks, Sealers, Putty, Sealing Agents<br>Coal Tars (Naptha, Pitch) | Phenolics, Formaldehydes<br>Asbestos, Benzene, Phenols, Naphthalene |
| Cleaners | Polishes (Metal, Ceramic, Tile), Etching Agents<br>Cleaners, Ammonia, Lye, Caustic Sodas,<br>Bleaching Agents, Chromate Salts | Metals<br>Acidity/Alkalinity<br>Chromium |
| Landscaping & Earthmoving | Planting, Plant Maintenance<br>Excavation, Grading, Stockpiling, Trenching<br>Solid Wastes (Trees, Shrubs, Green Waste, Mulch)<br>Exposing Mineral Deposits<br>Soils Additives<br>Re-vegetation of Graded Areas | Pesticides, Herbicides, Nutrients<br>Erosion (Sediments)<br>BOD<br>Acidity/Alkalinity, Metals<br>Aluminum Sulfate, Sulfur<br>Fertilizers |
| Materials & Waste Storage | Waste Storage (Used Oils, Solvents, Solid Waste)<br>Hazardous Waste Containment<br>Raw Material Piles | Oil and Grease (O&G), VOCs, Gross Solids (litter),VOCs, Acidity, Metals, etc<br>Sediments, Suspended Solids |
| Sanitary Waste Management | Portable Sanitary and Septic Waste | Bacteria, Litter |

Note: BOD = Biochemical oxygen demand due to the use of oxygen by microorganisms decomposing materials.
References: USEPA, 1973.
Meech, Mark L. & Margaret Lattin Bazany, 1991.
Gosselin, R.E. PhD, R.P. Smith PhD., and H.C. Hodge PhD. 1984.

### 2.9.5 Cumulative Impacts

The cumulative setting for water quality and stormwater runoff is considered to be the Los Angeles River watershed. Existing and continuing development, as well as natural rain events in the greater Los Angeles area, contribute to water quality and storm water runoff in the watershed. For much of its length, the Los Angeles River runs through urban areas, and currently water quality suffers severe pollution from garbage, urban runoff, and treated sewage.

Viaduct widening would slightly increase the amount of impervious paved roadway surfaces; however, the increased runoff associated with road surface would be a small fraction of the total stormwater runoff with in the drainage area, and would not be expected to substantially increase pollutant levels reaching the Los Angeles River. In addition, construction and operational water quality measures would be implemented as required by NPDES permitting that would avoid or minimize release of pollutants, and project contributions to cumulative impacts are considered less than cumulatively considerable.

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

The proposed project would comply with the City of Los Angeles Municipal Separate Storm Sewer Systems (MS4) Permit, the General Construction Permit and the Los Angeles RWQCB Dewatering Permit**.** Compliance with these permits should mitigate potential impacts to water quality. During the proposed project's preliminary design phase, specific construction and post-construction BMPs would be selected to meet permit requirements. No specific mitigation measures are recommended.

## 2.10 Geology / Soils / Seismicity / Topography

This section describes the regulatory setting, affected environment, and impacts associated with Geology, Soils, Seismicity, and Topography that would result from the construction or operation of the proposed project, and the mitigation measures that would reduce these impacts.

### 2.10.1 Regulatory Setting

The Alquist-Priolo Earthquake Fault Zoning Act prohibits the location of most types of structures for human occupancy across the active traces of faults in earthquake fault zones shown on maps prepared by the state geologist, and regulates construction in the corridors along active faults.

The Seismic Hazards Mapping Act of 1990 focuses on hazards related to strong ground shaking, liquefaction, and seismically induced landslides. Under its provisions, the state is charged with identifying and mapping areas at risk of strong ground shaking, liquefaction, landslides, and other related hazards, and the maps are to be used by cities and counties in preparing their General Plans and adopting land-use policies in order to reduce and mitigate potential hazards to public health and safety.

CEQA includes the statement:

> i "(d) The capacity of the environment is limited, and it is the intent of the Legislature that the government of the state take immediate steps to identify any critical thresholds for the health and safety of the people of the state and take all coordinated actions necessary to prevent such thresholds being reached."

Thus, mitigating the potential effects of geological hazards on people's health and safety is a proper purpose of CEQA analyses and review.

#### 2.10.1.1 City of Los Angeles General Plan

The Safety Element of the Los Angeles General Plan identifies various hazards that may occur in the Los Angeles. It provides basic policies that consider geologic conditions in the selection of land for development and the design of developments in order to preserve life and protect property in the event of a disaster.

### 2.10.2 Affected Environment

A Preliminary Foundation Report was prepared for the project (URS, 2002) to gather information regarding the potential geologic hazards to the proposed project including ground rupture, strong-ground motion, liquefaction, differential seismic settlement, seismically induced landsliding, earthquake-induced flooding, expansive and collapsible soils, subsidence, erosion, and volcanic hazards to the project area and surrounding areas.

### 2.10.2.1 Regional Geology

The project area is located within the Los Angeles Basin, which is located at the juncture between the Peninsular Ranges Geomorphic Province and the Transverse Ranges Geomorphic Province. The Los Angeles Basin is an elongated, northwest-trending, sediment-filled structural trough that began to take its present shape in the late Miocene (about 7 million years ago) by subsidence between the right-oblique Whittier and Palos Verdes faults, and the left oblique Santa Monica fault system (Wright, 1991). The project area is located where the Los Angeles River divides the Elysian Hills to the west from the Repetto Hills to the east. The Elysian and Repetto Hills are interpreted to be the topographic manifestation of a fault-propagated fold associated with a seismically active buried (or blind) thrust fault known as the Elysian Park thrust (Davis et al. 1989).

### 2.10.2.2 Site Geology

The North Spring Street Viaduct is underlain by localized thin fills, which are underlain by Quaternary-age alluvial sediments deposited by the Los Angeles River. The alluvial sediments consist of both floodplain deposits and stream channel deposits that are confined to the active Los Angeles River channel. The alluvial sediments typically consist of interbedded silty sands, and sands with gravel (URS, 2002). Sedimentary rocks of Miocene and Pliocene-age occur at the surface in the nearby Elysian Park and Repetto Hills (Dibblee, 1989) and are present at some depth beneath the alluvium along the viaduct alignment.

Groundwater elevation measurements recorded in the spring of 2002 (URS, 2002) varied from approximately 276 to 282 feet (84 to 86 meters) above mean sea level. This groundwater elevation is equivalent to a depth of approximately zero feet below the active stream channel and about 33 feet (10 meters) below the average ground surface outside the stream channel. Historic high groundwater in the project area is approximately 20 to 30 feet (7 to 10 meters) below ground surface (California Division of Mines and Geology, 1998).

### 2.10.2.3 Faulting and Seismicity

The project area is located in a seismically active area dominated by numerous active faults, which formed along a tectonic plate boundary known as the San Andreas transform zone. The San Andreas transform zone, which separates the North American Plate to the east from the Pacific Plate to the west, is dominated by northwest trending, right lateral, strike-slip faults of the San Andreas Fault system. In southern California the major right lateral strike slip faults of the San Andreas system include the San Andreas, San Jacinto, Elsinore, Newport Inglewood, and the Palos Verdes.

In the Los Angeles Basin and adjacent Transverse Ranges, the right lateral strike-slip environment of the San Andreas fault system is substantially altered by a north-south component

of compression. This north-south directed compression, which is partly caused by a convergent left bend of the San Andreas fault, is generally expressed by thrust, reverse or oblique slip faults and folds that trend approximately east west. Major East-west trending reverse or thrust faults in the vicinity of the project site include the Santa Monica-Hollywood-Raymond fault system, the Elysian Park blind thrust, and the Puente Hills blind thrust.

Several historic earthquakes have produced relatively strong-ground shaking within the vicinity of the project site. Notable examples include the magnitude-6.4 Long Beach Earthquake of 1993, the magnitude-6.5 San Fernando Earthquake of 1971, the magnitude-6.0 Whittier Narrows Earthquake of 1987, and the magnitude-6.7 Northridge Earthquake of 1994. The locations of the known active and potentially active faults and epicenters of earthquakes with magnitudes of 3.5 or greater with respect to the North Spring Street Viaduct are shown on the Regional Fault and Epicenter Map (see *Figure 2-31).*

### 2.10.2.4 Potential Geologic Hazards

#### *Ground Rupture*

Ground rupture is primary deformation that can occur across a surface fault trace during either a moderate to large earthquake, or during a seismic creep. The Los Angeles Basin is crossed by several active faults that are capable of generating moderate to large earthquakes and surface ground rupture. Active faults are generally considered to be those faults that have had surface displacement within Holocene time, approximately the last 11,000 years, as defined by the Alquist-Priolo Earthquake Fault Zoning Act (CDMG, 1997). The AP Act was adopted by the State of California to prevent the construction of structures for human occupancy across the trace of active faults. The nearest Alquist-Priolo zoned fault to the site is the Raymond fault, which is located approximately 3.5 miles (5.5 km) to the north (CDMG, 1977).

The nearest active fault to the site is the Elysian Park Blind thrust. The Elysian Park thrust, which is generally modeled to be approximately 3 miles (5 kilometers) beneath the site, is a subsurface (blind), north-dipping fault. It is manifested at the surface by “map scale” folding, which includes the Elysian Park Anticline and the Coyote Pass Escarpment (Oskin and others, 2000). The Elysian Park anticline and the Coyote Pass escarpment, which encompass the immediate vicinity of the project site, are believed to be developing above the Elysian Park thrust ramp, which has not yet broken to the surface. Analogous subsurface or “blind” thrusts are believed to be the source of the Whittier Narrows Earthquake and the Northridge Earthquake. Neither of these earthquakes resulted in surface faulting, but did result in regional uplift and folding.

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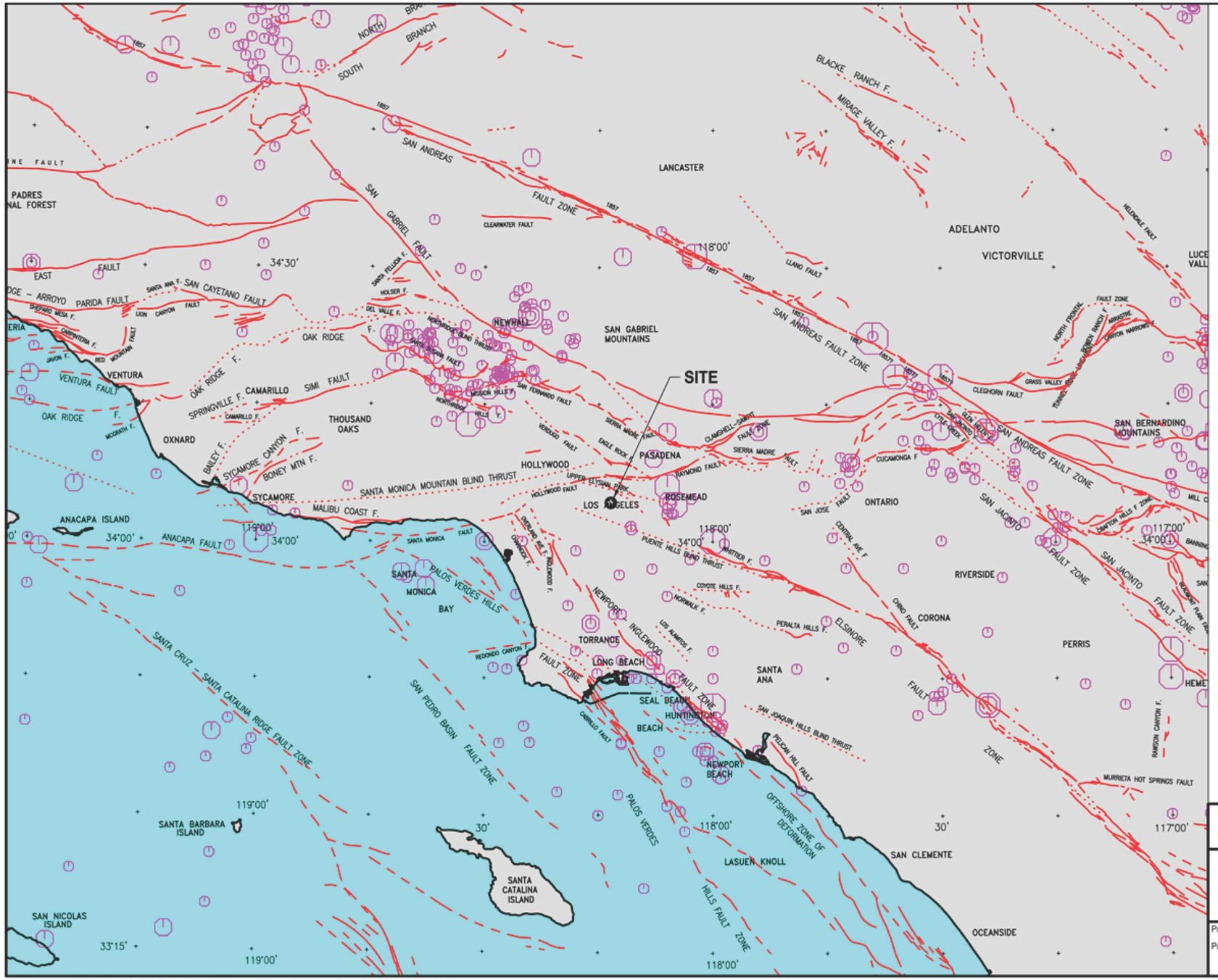


0 20 40

SCALE, kilometers

LEGEND

REPORTED EARTHQUAKE MAGNITUDES.

- 4.0 TO 4.9
- 5.0 TO 5.9
- 6.0 TO 6.9
- 7.0 AND GREATER

SOUTH OF LATITUDE 35°N, EPICENTER AND MAGNITUDE DATA ARE FROM THE CALIFORNIA GEOLOGICAL SURVEY (2001) EARTHQUAKE CATALOG FOR THE PERIOD FROM 1769 TO 2000. ONLY EARTHQUAKES OF MAGNITUDE 4.0 AND LARGER ARE SHOWN. AFTERSHOCKS ARE NOT INCLUDED.

? ? ?

APPROXIMATE LOCATION OF HOLOCENE AND PLEISTOCENE FAULTS, DOTTED WHERE CONCEALED, QUERIED WHERE CONJECTURAL. FAULT LOCATIONS BASED ON: ZIONY AND JONES, 1989; CDMG GEOLOGIC MAP SERIES OF CALIFORNIA, 1977–1986 (1:250,000 SCALE); CDMG GEOLOGIC MAP SERIES, CALIFORNIA CONTINENTAL MARGIN, 1987 (1:250,000 SCALE); HAUKSSON, 1990; SHAW AND SHEARER, 1999; WRIGHT, 1991; GRANT ET AL. 1999.

URS

**REGIONAL FAULT AND EPICENTER MAP**

| | |
|---|---|
| Proj. No.: 29870266.00003 | Date: AUG. 2005 |
| Project: **North Spring Street Bridge EIR** | Figure: |

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LA DPW ENGINEERING Serving the Present; Designing the Future

REGIONAL FAULT AND EPICENTER MAP

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-31

There are no known surface faults that cross the project site; and, surface deformation due to an earthquake on the Elysian Park thrust is anticipated to be manifested by folding rather than surface faulting. Design parameters for estimated ground motions and for settlement would more than compensate for any surface deformation along the Coyote Pass escarpment or the Elysian Park anticline during an earthquake on the Elysian Park thrust. As such, surface ground rupture is not a potential seismic hazard to the project.

### *Strong Ground Motion*

Strong ground motion generated during moderate-to-large magnitude earthquakes is considered to have the greatest impact on the proposed project. The degree of shaking that is felt at the project site would depend on the distance from the earthquake source, the type of subsurface material on which the project is situated, and the topography.

Ground motion studies for bridges in California are based on design criteria established by Caltrans (Caltrans, 2004). Ground motion sources used by Caltrans are summarized on the Caltrans California Seismic Hazard Map (Mualchin, 1996) (see *Figure 2-32*).

**Table 2-31 Selected Seismic Sources from Caltrans Seismic Hazard Map**

| Fault | Style | Approx. Closest Distance to Project Site (kilometers) | Approximate Maximum Magnitude, Mw |
|---|---|---|---|
| Elysian Park Seismic Zone (EPK) | Reverse | 5 | 7 |
| Malibu Coast-Santa Monica-Hollywood-Raymond (MMR) | Reverse-Oblique | 5.5 | 7.5 |
| Newport-Inglewood-Rose Canyon (NIE) | Strike Slip | 15 | 7 |
| Charnock (CNK) | Strike Slip | 18 | 6.5 |
| Whittier-Elsinore (WEE) | Strike Slip | 19 | 7.5 |
| San Andreas (SAC) | Strike Slip | 52 | 8 |

Based on this map the seismic sources closest to the project include the Elysian Park Seismic Zone (EPK), and the Whittier-Elsinore (WEE), Malibu Coast-Santa Monica-Hollywood-Raymond (MMR), Newport-Inglewood-Rose Canyon (NIE), and Charnock (CNK) faults. *Table 2-31* above summarizes the approximate distance of the project area and Maximum Credible Earthquake (MCE) for these proximal seismic sources and for the more distant San Andreas Fault (SAC).

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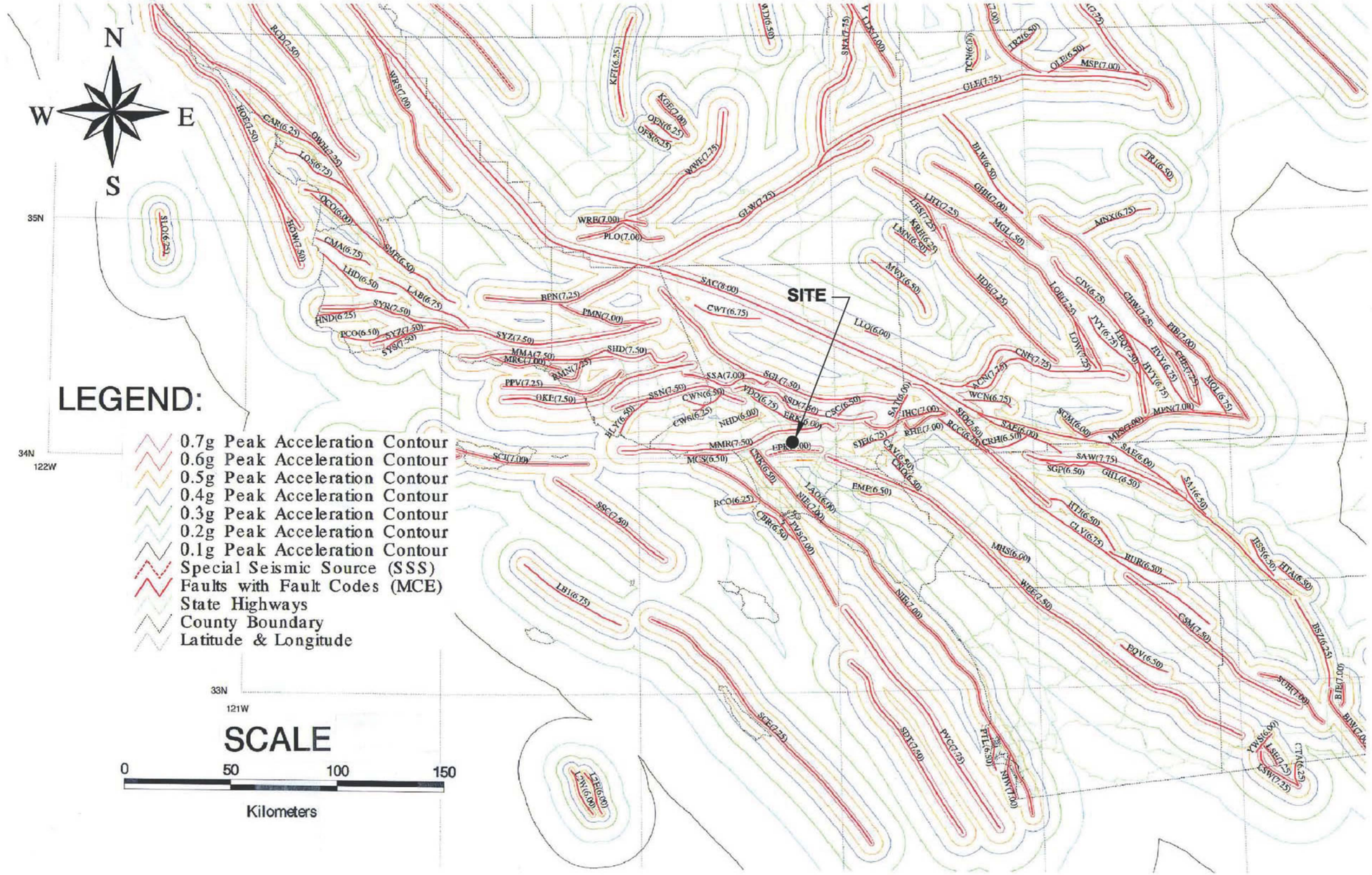


| | |
|---|---|
| LA DPW ENGINEERING *Serving the Present; Designing the Future* | CALIFORNIA SEISMIC HAZARD MAP |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT — FIGURE 2-32 |

According to the Caltrans California Seismic Hazard Map, the controlling fault for the site is the Elysian Park Seismic Zone[64]. A peak ground acceleration of 0.6g (units of gravity) was estimated or the subject site from the maximum credible earthquake (URS, 2002).

### *Liquefaction*

Liquefaction is defined as a substantial and relatively sudden reduction in stiffness and shear strength of saturated sandy soils caused by a seismically induced increase in pore-water pressure. Potential for seismically induced liquefaction exists whenever relatively loose, sandy soils exist with high-groundwater level and/or potential for long duration, high-seismic shaking. When liquefaction occurs, the site can experience damage induced by permanent ground movements resulting in differential settlement and flotation of structures.

The Safety Element of the Los Angeles City General Plan (1996) has designated certain areas within the city as susceptible to liquefaction. These are areas considered at greater risk of liquefaction-related ground failure during a seismic event, based upon the presence of recent alluvial deposits and the presence of a relatively shallow groundwater table (less than 30 feet deep). The Los Angeles City Safety Element identifies the area within the vicinity of the project as an area susceptible to liquefaction

In 2002, URS conducted a site-specific subsurface investigation and Preliminary Foundation Report for the project that included a preliminary liquefaction analysis. URS identified liquefiable soils at depths of about 40 to 50 feet below ground surface.

### *Earthquake Induced Flooding*

Earthquake-induced flooding is flooding caused by tsunamis, dam failures, or seiches. A tsunami is a great sea wave produced by a significant undersea disturbance, such as tectonic displacement of the sea floor associated with large, shallow earthquakes. Other processes that may generate tsunamis include sea-floor landslides, large rock falls into the ocean, and volcanic eruptions. Due to the project area's elevation and distance from the Pacific Ocean, tsunamis are not a potential seismic hazard to the project.

Earthquakes can also cause the failure of dams or other water retaining structures or a seiche (an oscillation of a body of water in an enclosed basin) resulting in flooding of adjoining areas. Because there are no significant bodies of water in the vicinity of the project area, the potential for substantial flooding from a seismically induced dam failure or a seiche is not considered a hazard to the project.

[64] Note that the Caltrans seismic source map does not include the Puente Hills blind-thrust fault of Oskin et al. (2000), Shaw et al. (2002), and Dolan et al. (2003), which is a more recently identified seismic source. However the Elysian Park Seismic Zone used in the Caltrans model, is similar to this blind thrust fault and it accounts for a proximal seismic source beneath the site.

### Differential Seismic Settlement

Differential seismic settlement occurs when seismic shaking causes one type of soil or rock to settle more than another type. It may also occur within a soil deposit with relatively homogeneous properties if the seismic shaking is uneven, which could occur due to variable topography or variable depth of the soil deposits. Differential seismic settlement is most likely to occur in areas that transition between rock formations and more recently deposited alluvial soils or human-placed artificial fill.

The viaduct crosses several types of soils; therefore, there is some potential for differential settlement. URS reported that subsurface soils at the site contain clayey silts that have a propensity to undergo consolidation and that final geotechnical investigations should include specific analyses and recommendations regarding settlement and differential settlement.

### Seismically Induced Landslides

The Seismic Hazards Zones map for the Los Angeles quadrangle (California Division of Mines and Geology, 1998b), shows that the site is not located within a zone where previous landslide movement or local topographic, geological, geotechnical, and subsurface water conditions indicate a potential for earthquake-induced landsliding (California Division of Mines and Geology, 1998b). Likewise the project site does not occur in an area identified as prone to either landslides or slope instability by the City of Los Angeles Planning Department; therefore, the potential for landslides induced by seismic shaking would not exist in the vicinity of the project area.

### Subsidence

The extraction of water or petroleum from sedimentary source rocks can cause the permanent collapse of the pore space previously occupied by the removed fluid. The compaction of subsurface sediment caused by fluid withdrawal would cause subsidence of the ground surface overlying a pumped reservoir. If the volume of water or petroleum removed is sufficiently great, the amount of resulting subsidence may be sufficient to damage nearby engineered structures.

The project site is located approximately 4,000 feet east of the Los Angeles City oil field and some exploratory oil drilling was done approximately 1,500 feet to 2,000 feet west of the site (Munger 2001). However oil producing wells have never occupied the immediate vicinity of the project area.

Substantial quantities of water or petroleum are not being extracted in the area occupied by the proposed project. Subsidence is therefore not anticipated to pose a substantial hazard to the proposed project, barring such extraction in the future.

### *Landslides*

Topography through the proposed project area is generally flat and devoid of steep hills or significant slopes; therefore, the potential for landslides or slope instability in the immediate project vicinity is considered unlikely.

### *Collapsible Soils*

Collapsible soils are soils that undergo settlement upon wetting, even without the application of additional load. Collapsible soils could potentially occur where the project site is situated on alluvial soils. However, in developed areas, any collapse that could occur in the soil has likely already taken place; therefore, collapsible soils are not likely to affect the proposed project.

### *Expansive Soils*

Expansive soils are fine-grained soils (clay) that can undergo a substantial increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content. Changes in the water content of an expansive soil can result in severe distress to structures constructed upon the soil. The site is principally underlain by sandy soils, which have a low expansion potential. Expansive soils are not anticipated to pose a potential hazard to the proposed project.

### *Erosion*

The Los Angeles River is concrete lined beneath the project area. The proposed project requires limited excavation and land-shaping activities that are not expected to result in either short- or long-term exposure of soil to the erosive effects of wind or water. Construction of the proposed project would not result in substantial soil erosion or loss of topsoil and impacts from erosion of surface soils would be negligible.

### *Volcanic Hazards*

No recent centers of volcanic activity occur within hundreds of miles of the proposed project; therefore, volcanic hazards do not present a hazard to the project.

## 2.10.3 Environmental Consequences

### 2.10.3.1 No Build Alternative

The No Build Alternative would continue to expose the existing structure to damage from ground motion, liquefaction, and differential seismic settlement.

### 2.10.3.2 Build Alternatives 1, 2, and 3

The proposed project could be impacted by ground motion, liquefaction, and differential seismic settlement. All of the build alternatives include seismic retrofit activities, which would not

change the outside shape of the existing structure nor would it significantly reconfigure the pier in the Los Angeles River. All of the build alternatives are designed to eliminate structural collapse during a seismic event by including measures such as casing of the existing columns under the approach spans with a steel jacket or composite fiber, expanding the seat width of the expansion joints of the abutments, and wrapping the spandrel columns with composite fiber wrapping. Design and construction of the proposed project under current building standards would minimize the impact of potentially adverse geologic, soils, and seismic conditions.

### 2.10.4 Construction Impacts

#### 2.10.4.1 No Build Alternative

The No Build Alternative would not result in temporary geologic impacts.

#### 2.10.4.2 Build Alternative 1, 2, and 3

In the unlikely possibility of an earthquake occurring during construction, the proposed project could be impacted by strong ground motions, liquefaction, and seismically induced differential settlement. Implementation of construction practices, in compliance with California Division of Occupational Safety and Health Administration (Cal-OSHA) requirements, would also minimize the impact of these hazards.

### 2.10.5 Cumulative Impacts

The cumulative setting for geology/soils/seismic/topography is considered to be the Los Angeles region. The proposed project area is within the seismically active Southern California region where numerous faults of various type and magnitude potential are located. Risk of seismic events within the project area is expected to be similar to that of other sites in the region. However, the seismic retrofit improvements to the viaduct proposed as part of the project would improve seismic stability of the bridge to meet current standards, thereby providing an added measure of safety and risk reduction. Therefore, project contributions to cumulative impacts are considered less than cumulatively considerable.

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

The viaduct design for the widening would be developed in accordance with City and Caltrans Bridge Specifications. No mitigation measures other then those required by these standards would be required.

## 2.11 Hazardous Waste/Materials

Hazardous materials are generally substances that, by their nature and reactivity, have the capacity for causing harm or health hazards during normal exposure or an accidental release or mishap. They are characterized as being toxic, corrosive, flammable, reactive, an irritant, or a strong sensitizer. The term "hazardous substances" encompasses chemicals regulated by both the DOT's "hazardous materials" regulations and the U.S. EPA "hazardous waste" regulations, including emergency response. Hazardous wastes require special handling and disposal because of their potential to damage public health and the environment. This subsection discusses potential human health hazards due to exposure to existing and possible future sources of hazardous materials and wastes because of project construction and operation.

### 2.11.1 Regulatory Setting

Hazardous materials and hazardous wastes are regulated by many state and federal laws. These include not only specific statutes governing hazardous waste, but also a variety of laws regulating air and water quality, human health, and land use.

The primary federal laws regulating hazardous wastes and materials are the Resource Conservation and Recovery Act of 1976 (RCRA) and the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA). The purpose of CERCLA, often referred to as Superfund, is to clean up contaminated sites so that public health and welfare are not compromised. RCRA provides for "cradle to grave" regulation of hazardous wastes. Other federal laws include:

- Community Environmental Response Facilitation Act (CERFA) of 1992
- CWA
- Clean Air Act (CWA)
- Safe Drinking Water Act
- Cal-OSHA
- Toxic Substances Control Act (TSCA)
- Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA)

In addition to the acts listed above, EO 12088, Federal Compliance with Pollution Control, mandates that necessary actions be taken to prevent and control environmental pollution when federal activities or federal facilities are involved.

Hazardous waste in California is regulated primarily under the authority of RCRA and the California Health and Safety Code. Other California laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup and emergency planning.

Worker health and safety and public safety are key issues when dealing with hazardous materials that may affect human health and the environment. Proper disposal of hazardous material is vital if it is disturbed during project construction.

### 2.11.2 Affected Environment

A Hazardous Materials Study was prepared (URS, 2009) to gather information regarding the surrounding properties to evaluate the use and/or generation of hazardous materials and wastes within the project vicinity, and to evaluate the potential for contaminated conditions to be present from current or former land uses. This study was also prepared to assess the potential generation of hazardous wastes and materials associated with construction and operation of the proposed improvements to the North Spring Street Viaduct, associated roadway between Mesnager Street and Avenue 18 in the City of Los Angeles, California and the demolition of several structures.

This study was conducted in general accordance with American Society for Testing and Materials (ASTM) Standard E-1527-05, "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process" (November 2005) (ASTM Practice E-1527-05) and following the guidelines for an Initial Site Assessment (ISA) as presented in the Caltrans Standard Environmental Reference (SER) Volume I, Chapter 10 – Hazardous Waste Site Investigations.

The study did not include testing for radon gas, asbestos, vapor intrusion, or lead in drinking water; sampling or testing of soil or groundwater. In addition, the study did not include a compliance audit and was not intended to be a complete Phase I Environmental Site Assessment of the entire project area. The survey did include the following elements:

- A field reconnaissance to document current property conditions. An inventory of potential contaminant sources within the project area was completed based on visual observations.
- A focused regulatory agency search that included interpreting a computer database of state, federal, and county release sites and hazardous materials users and waste generators, landfills, existing or abandoned oil wells, and releases from subsurface pipelines.
- A review of historical information sources to evaluate whether prior land uses may have used or stored hazardous materials. These sources included historical aerial photographs and topographic maps.

Project objectives include identification of Recognized Environmental Conditions (REC) that may exist within the project area. ASTM Practice E-1527-05 defines RECs as the "presence or likely presence of hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of hazardous substance or petroleum products into structures on the property or into the ground, groundwater, or surface water of the site."

The research conducted to identify RECs focused on the historical operations of the project area and included a review of historical aerial photographs, historic topographic maps, and other relevant materials. The records review included selected agency files as appropriate.

In general, it appears that the proposed project area was developed with warehouses and industrial buildings prior to 1906. Multiple structures were depicted on the 1906 Sanborn map, along with the Southern Pacific Shops & Yard. The Sanborn maps and the historical aerial photographs both indicate a steady increase of growth and development over time. Currently, the site vicinity is predominantly surrounded by industrial and warehouse facilities.

As part of the hazardous materials study, observation and evaluation of adjoining properties was limited to features and conditions that were visible from public rights-of-way, interiors of properties were not evaluated. The following observations were made:

**North:** Residential uses appear to exist in the buildings located within the triangle formed by North Spring, Aurora, and Baker Streets. The LASHP, a former railroad yard; tracks of existing railroads paralleling the Los Angeles River and owned by the SCRA; and the Downey Recreation Center are located north of the proposed project area.

**South:** Several industrial facilities/buildings located along North Spring Street. Southern California Regional Rail Authority railroad tracks paralleling the Los Angeles River; the Downey Recreation Center, and Main Street are located to the south of the project area.

**East:** The proposed project area is abutted on the east by industrial and warehouse facilities, and portions of the Downey Recreation Center.

**West:** The proposed project area is bordered to the west by Mesnager Street, a portion of the LASHP, and warehouse and industrial facilities.

Several facilities, located adjacent to, but not within, the proposed project area, are listed on multiple agency-generated databases. The former Bortz Oil Company, located at 1746 North Spring Street, was a petroleum products blending and packaging facility. The facility was destroyed by a fire in 1984 and during reconstruction in 1985/1986, subsurface soil and groundwater contamination were detected. Carnation Dairies located adjacent to and west, but not within the proposed project area, is a generator of hazardous waste and has contaminated the groundwater from leaking underground storage tanks. The former UPRR – Cornfield Site, located adjacent to and northwest, but not within the proposed project area, is a Spills, Leaks, Investigations, and Cleanup (SLIC) site, Voluntary Cleanup Program (VCP) site, and an EnviroStor site (a state and federal database).

### 2.11.2.1 Hazardous Materials and Hazardous Wastes

As reported previously, interiors of properties were not evaluated for the proposed project. Hazardous materials and hazardous wastes were not observed at the project area during the site reconnaissance. URS contacted the California Department of Toxic Substance and Control (DTSC) regarding the remediation at the Cornfield Site. The DTSC has certified that the Cornfield Site was listed for Removal Action (February 28, 2003) and 5,200 tons of contaminated soil was excavated from the site.

#### *Solid Waste*

Trash dumpsters were observed throughout the project area during the site reconnaissance.

#### *Contaminated Groundwater*

The potential for encountering contaminated groundwater is low to medium. Known groundwater contamination exists in the Los Angeles River. The potential for encountering contaminated groundwater within the Los Angeles River is moderate. The RWQCB confirmed that there is contaminated groundwater that exists below the Los Angeles River. Depth to groundwater within the site vicinity is approximately 23 to 30 feet.

#### *Aboveground Storage Tanks*

Aboveground storage tanks (AST) were not observed in the project area during the site reconnaissance.

#### *Underground Storage Tanks*

No indication of underground storage tanks (UST), such as vent lines or fill pipes, were observed during the site reconnaissance.

#### *Drums and Containers*

Drums and containers were not visible in the project area during the site reconnaissance.

#### *Drains, Sumps, or Clarifiers*

Drains, sumps, or clarifiers associated with waste were not observed in the project area during the site reconnaissance.

#### *Wells*

Oil or gas wells were not visible in the project area during the site reconnaissance.

#### *Discolored/Stained Pavement or Soil/Stressed Vegetation*

Discolored soil or pavement and stressed vegetation were not observed in the project area during the site reconnaissance.

### Pits, Ponds, or Lagoons

Pits, ponds, or lagoons were not observed in the project area during the site reconnaissance.

### Polychlorinated Biphenyls

Several pole-mounted transformers were observed along North Spring Street. Stains or leaks were not observed on, or adjacent to, the transformers. The transformers were unmarked. Although, it is possible the units contain polychlorinated biphenyls, there were no stains or leaks observed near the transformers.

### Asbestos

Asbestos containing materials (ACM) may exist at various locations throughout the proposed project study area (e.g., buildings, structures, facilities, expansion joints, packing materials at abutments, etc.). There was a ban on ACM being used in many materials in 1989; however, the ban never applied to roofing materials. The ban was lifted in 1991 and some materials manufactured after that time may contain asbestos. Therefore, materials affected by the project that were installed prior to 1989 and after 1991 may contain asbestos.

### Radon

Radon is emitted by the natural breakdown and radioactive decay of uranium in rocks and soils. It may enter a structure as an off-gas by-product of building materials, natural-gas contaminant, or a water contaminant. Potential entry into buildings may occur through cracks in the foundation, sump pumps, areas around drainage pipes, and other openings. Once inside an enclosed space, radon can accumulate, if the structure is not ventilated.

The project area is located within U.S. EPA-designated radon Zone 2. Zone 2 is defined as having an average indoor radon level of equal or greater than 2.0 and less than 4.0 pico Curies per Liter (pCi/L). The EPA action level for radon is 4.0 pCi/L. Therefore, further assessment for radon does not appear warranted.

### Lead-Based Materials

The yellow and white thermoplastic pavement markings and stripes present at the proposed project study area may contain lead-based paint. In addition, lead based paints may be found within the structures found on parcel number 5409-002-006 with a street address of 1701 North Spring Street.

As is the case for any project that involves excavation, there is the potential for unknown hazardous contamination to be encountered during project construction. Aerially deposited lead (ADL) contaminated soils may exist in unpaved areas adjacent to existing roadways, traffic lanes, or shoulders. Based on California hazardous waste criteria, any soil is considered

hazardous waste if the soluble lead concentration exceeds 5.0 milligrams per liter (mg/L) (CCR, Title 22, Division 4.5, Chapter 11, Article 3, 66261.24).

#### 2.11.2.2 Hazardous Materials Database Search

Information was gathered from several environmental databases through Environmental Data Resources (EDR) to evaluate whether activities on or near the project area have the potential to create adverse environmental impacts on the project area. Listed sites along the project area and facilities identified in close proximity to, or within 0.25-mile of the project area listed within the database search radii are described in *Table 2-32* and shown on *Figure 2-33*.

**Table 2-32 Database Listed Sites**

| Site | List | Detail |
|---|---|---|
| **Properties Listed Along the North Spring Street Corridor** | | |
| Bortz Oil Company (Map ID #1)<br>(Former Occupant)<br>1746 N. Spring Street<br>Los Angeles<br>(additional locations were identified on the Sanborn map, north of Spring Street and immediately adjacent and west of 1746 N. Spring Street) | Leaking Underground Storage Tank (LUST); Cortese; Historic UST; EMI; BEP; CA FID UST<br>SWEEPS UST; Response; DEED<br>Envirstor; Hist Cal-Sites | Bortz Oil (aka Standard Oil) was a petroleum products blending and packaging facility. The facility was destroyed by a fire in 1984. During reconstruction, subsurface soil and groundwater contamination were detected. The soil and groundwater are contaminated with acetone, toluene, xylene, benzene, methyl ethyl ketone, methylene chloride, and 1, 2-dichloroethane. |
| KM Office Services (Map ID #2)<br>1733 N. Spring Street<br>Los Angeles | FINDS; RCRIS-LQG<br>HazNet | Large Quantity Generator of Organics. |
| Cathay Company (Map ID #3)<br>1745 N. Spring Street<br>Los Angeles | FINDS; FTTS; HIST FTTS | Identified on several databases; however, contamination is not listed. |
| Antista Enter. Corp. (Map ID #4)<br>1701 N. Spring Street<br>Los Angeles | EMI | Registered as releasing Total Organic Hydrocarbon Gases and Reactive Organic Gases. |
| Kim Phuoc Jewelry (Map ID #5)<br>1646 N. Spring Street<br>Los Angeles | HazNet; RCIRS-SQG<br>FINDS | Small quantity generator of Liquids with Cyanides. |
| Carnation Dairies (Map ID #6)<br>(Main Street Dairy)<br>1620 N. Spring Street<br>Los Angeles<br>(immediately west of the project area) | HazNet; FINDS; Hist FTTS; Hist UST; LUST<br>Cortese; EMI; SWEEPS UST; CA FID UST | Generator of hazardous waste and contaminated groundwater from LUSTs. |

| Site | List | Detail |
|---|---|---|
| **Properties Listed Along the North Spring Street Corridor** | | |
| Union Pacific Railroad – Cornfield Site (Map ID #7)<br>1245 North Spring Street<br>Los Angeles | SLIC<br>VCP<br>EnviroStor | Since 1989, several environmental activities and soil and groundwater investigations have been performed. Soil contamination has been remediated and the site received a NFA letter from the RWQCB on June 6, 2006 for a portion of the Cornfield Site (the 8-acre former service station parcel). Due to the high BTEX concentrations present in groundwater, sampling and monitoring are still required, along with the possibility of groundwater remediation. Currently, groundwater is just being monitored, no remediation has been required. The potential for encountering groundwater is low. The known groundwater contamination is the vicinity is located within the central portion of the Cornfield Site. Depth to groundwater in the site vicinity is 30-35 feet. The groundwater flow direction is southwest, away from the LA River. Within the Cornfield Site, currently, groundwater is just being monitored; no remediation has been required by the lead agency, the Regional Water Quality Control Board (RWQCB). |

Based on the relative location with respect to groundwater flow in the area, the long-term industrial nature of the site vicinity, and regulatory status, the potential for the above facilities to have created an REC at the project area is low to moderate.

### 2.11.3 Environmental Consequences

Hazardous waste/materials impacts involve project effects that would have the potential to create adverse environmental impacts and health hazards in the project area and the surrounding vicinity.

#### 2.11.3.1 No Build Alternative

There would be no permanent or temporary impacts associated with hazardous wastes/materials under the No Build Alternative.

#### 2.11.3.2 Build Alternative 1

There would be no permanent or temporary impacts associated with hazardous wastes/materials under the Build Alternative 1.

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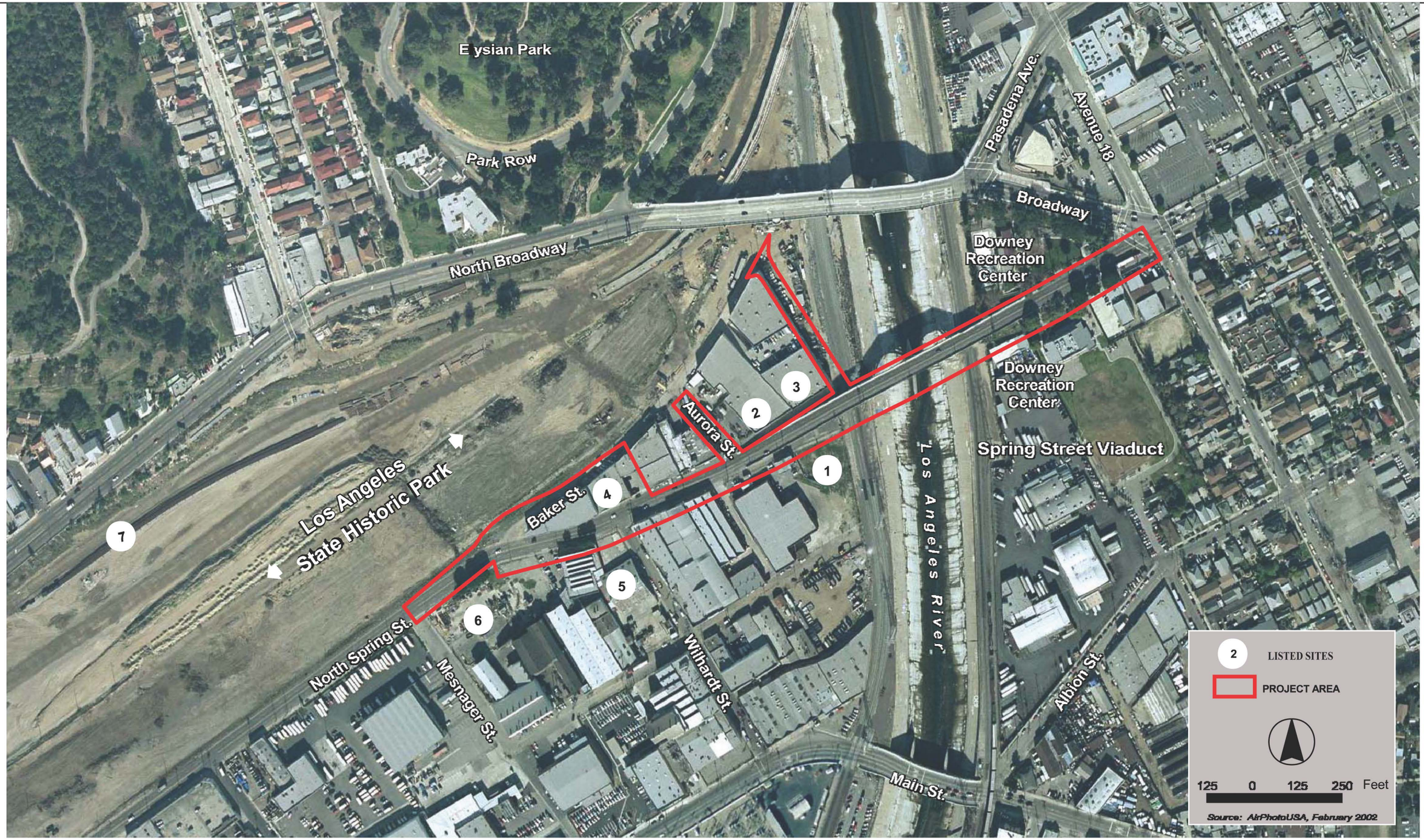


| | | |
|---|---|---|
| LA DPW ENGINEERING Serving the Present, Designing the Future | HAZARDOUS LISTED SITES | |
| | NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT | FIGURE 2-33 |

#### 2.11.3.3 Build Alternatives 2 and 3

RECs associated with the project area are near the identified suspect areas of concern and include the following:

- The former Standard Oil Company/Bortz Oil Company as a contaminated waste site;
- Carnation (Main Street) Dairy; and
- UPRR – Cornfield Site.

### 2.11.4 Construction Impacts

#### 2.11.4.1 No Build Alternative

There would be no construction impacts associated with hazardous wastes/materials under the No Build Alternative.

#### 2.11.4.2 Build Alternative 1

Build Alternative 1 consists of seismic retrofit construction which would require drilling for the placement of soil piles, increasing the likelihood of encountering hazardous materials. The RWQCB confirmed that there is contaminated groundwater that exists below the Los Angeles River. Depth to groundwater within the site vicinity is approximately 23 to 30 feet..

#### 2.11.4.3 Build Alternatives 2 and 3

Build Alternatives 2 and 3 would include the same seismic retrofit activities as Build Alternative 1, and would therefore result in the same impacts related to contaminated groundwater. For the widening of the viaduct, URS proposes the piles to be driven in place as the method for the placement. If feasible, driven piles would be used to avoid the need for foundation excavated piles to avoid encountering potentially contaminated groundwater In addition, these alternatives would require excavation which increases the potential to encounter unknown hazardous contamination. ACM contained in buildings, structures, facilities, expansion joints, packing materials at abutments, etc, may be encountered during demolition activities.

Thermoplastic pavement markings in the proposed project area or other types or colors of street or municipal markings may contain lead-based paint, which would likely need to be removed in order to complete the proposed roadwork. Further, lead-based paint may also exist at the structures/buildings that would be affected as a result of implementing the proposed project. Given the history and long-term industrial nature of the vicinity, ADL contaminated soils may exist in unpaved areas adjacent to the Downey Recreation Center. Based on California hazardous waste criteria, any soil is considered hazardous waste if the soluble lead concentration exceeds 5.0 mg/L (CCR, Title 22, Division 4.5, Chapter 11, Article 3, 66261.24).

### 2.11.5 Cumulative Impacts

Treatment of hazardous materials would be conducted as part of the project per City standards and other standard regulations, avoiding the release of any hazardous materials. Since no other projects in the adjacent area are expected to release these materials, no cumulative impacts would occur.

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

The following measures would be implemented for the project in compliance with existing hazardous materials regulations:

- A Phase One Environmental Site Assessment prepared in conformance with ASTM 1527-05 would be completed upon the final design in support of land acquisitions and prior to the preparation of worker health and safety documents.
- The contractor would be required to conduct a pre-construction survey of the proposed project sites and locations for the presence of actionable levels of hazardous materials and, if found, would minimize potential effects on the public by implementing established regulatory procedures.
- Prior to renovation, demolition, or any activity that might cause a disturbance of any suspect lead-based paint, the contractor would conduct sampling to determine lead content is recommended. If paint containing lead chromate or lead carbonate is encountered, it would be collected and disposed of, as necessary, in accordance with all applicable worker protection and hazardous materials management regulation.
- If hazardous materials (e.g., petroleum hydrocarbon-contaminated soils) or other regulated substances (e.g., pesticides or herbicides) are identified in the soil during construction, work would cease at that location and soil containing such substances should be collected, tested, and disposed of in accordance with applicable state and federal regulations.
- Any affected lead-based roadway pavement markings would be collected, tested, and disposed of according to applicable state and federal regulations. If paint containing lead chromate or lead carbonate is encountered, it would be collected and disposed of in accordance with all applicable worker protection and hazardous materials management regulations.
- Prior to construction, the contractor would inspect the structures to be demolished and confirm presence of asbestos-containing materials. The contractor would prepare an asbestos abatement and worker protection plan to be implemented prior to and during demolition of structures where the presence of asbestos has been confirmed. All ACMs would be removed

and disposed of by a state-licensed abatement contractor in accordance with applicable state and federal laws.

- Any spoils generated from the roadway margins within the boundaries of the proposed project would be managed in accordance with Caltrans' Variance through the DTSC for the management and disposal of soil impacted by ADL or collected and characterized for appropriate disposal in accordance with CCR, Title 22, Division 4.5, Chapter 11, Article 3, 66261.24.
- If the design team concludes that cast-in-drilled-hole (CIDH) piles are the most appropriate foundation remedy, all de-watering water from the excavation and spoils would be characterized and prepared for proper disposal in accordance with the standard of care for such activities (DTSC/RWQCB).

# 2.12 Air Quality

## 2.12.1 Regulatory Setting

### 2.12.1.1 Federal Regulations

Federal air quality policies are regulated through the federal Clean Air Act (FCAA). The FCAA required the U.S. EPA to establish National Ambient Air Quality Standards (NAAQS or National AAQS), and also set deadlines for their attainment. Two types of NAAQS have been established: primary standards, which protect public health, and secondary standards, which protect public welfare from non-health-related adverse effects, such as visibility restrictions. NAAQS are summarized in *Table 2-33*.

The FCAA also required each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The FCAA Amendments of 1990 added requirements for states with nonattainment areas to revise their SIPs to incorporate additional control measures to reduce air pollution. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, and rules and regulations of the air basins as reported by their jurisdictional agencies. The U.S. EPA has responsibility to review all state SIPs to determine conformance with the mandates of the FCAA, and the amendments thereof, and determine if implementation will achieve air quality goals. If the U.S. EPA determines a SIP to be inadequate, a Federal Implementation Plan (FIP) may be prepared for the nonattainment area that imposes additional control measures.

**Table 2-33**
**Summary of Ambient Air Quality Standards**

| Pollutant | Averaging Time | California Standards | National Standards | |
|---|---|---|---|---|
| | | | Primary (a) | Secondary (b) |
| Ozone (O3) | 1-hour | 0.09 ppm | - - | Same as Primary |
| | 8-hour | 0.070 ppm | 0.075 ppm | |
| Particulate Matter (PM10) | AAM | 20 µg/m$^3$ | - - | |
| | 24-hour | 50 µg/m$^3$ | 150 µg/m$^3$ | |
| Fine Particulate Matter (PM2.5) | AAM | 12 µg/m$^3$ | 15 µg/m$^3$ | |
| | 24-hour | No Standard | 35 µg/m$^3$ | |
| Carbon Monoxide (CO) | 1-hour | 20 ppm | 35 ppm | None |
| | 8-hour | 9 ppm | 9 ppm | |
| | 8-hour (Lake Tahoe) | 6 ppm | – | |

| | | | | |
|---|---|---|---|---|
| Nitrogen Dioxide (NO2) | AAM | 0.030 ppm | 0.053 ppm | Same as Primary |
| | 1-hour | 0.18 ppm | 100 ppb | |
| Sulfur Dioxide (SO2) | | | | – |
| | 24-hour | 0.04 ppm | – | – |
| | 3-hour | – | – | 0.5 ppm |
| | 1-hour | 0.25 ppm | 75 ppb | – |
| Lead (Pb) | 30-day Average | 1.5 µg/$m^3$ | – | – |
| | Calendar Quarter | – | 1.5 µg/$m^3$ | Same as Primary |
| | Rolling 3-Month Average | – | 0.15 µg/$m^3$ | |
| Sulfates | 24-hour | 25 µg/$m^3$ | No Federal Standards | |
| Hydrogen Sulfide | 1-hour | 0.03 ppm | | |
| Vinyl Chloride | 24-hour | 0.01 ppm | | |
| Visibility-Reducing Particle Matter | 8-hour | Extinction coefficient of 0.23 per kilometer —visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%. | | |

*a. Levels necessary to protect the public health.*
*b. Levels necessary to protect the public welfare from known or anticipated adverse effects.*
*AAM = Annual Arithmetic Mean; µg/$m^3$ = Micrograms per cubic meter; ppm = parts per million; ppb = parts per billion*
*Source: CARB 2011*

### *Transportation Conformity*

The FCAA requires that all transportation plans and programs pass the air quality conformity test. This process involves forecasting future emissions of air pollution to determine whether the amount of future pollution resulting from the plan or program would be within the allowable limit for motor vehicle emissions.

Transportation conformity must be determined for all nonattainment area pollutants classified as regional pollutants. In the South Coast Air Basin (SCAB), federal nonattainment pollutants include ozone ($O_3$), respirable particulate matter ($PM_{10}$), and fine particulate matter ($PM_{2.5}$). The Los Angeles County portion of the SCAB is designated as nonattainment of state and federal lead standards. Transportation projects also generate carbon monoxide (CO), which is considered a localized pollutant. The Transportation Project-Level Carbon Monoxide Protocol, UCD-ITS-

97-21 (CO Protocol), University of California, Davis, December 1997, provides procedures and guidelines for use by agencies to evaluate the potential local level CO impacts of a transportation project. The CO Protocol includes a screening procedure that can be used to determine if CO micro-scale modeling is required for a proposed project. CO micro-scale modeling is required for projects that fail the screening procedure to determine whether a transportation project would cause or contribute to localized violations of CO NAAQS.

### *Regional Conformity*

Regional conformity must be determined based on a full study at least every four years. In California, it is determined at least every four years when the state-required RTP updates are done. In addition, a new Federal Transportation Improvement Plan (FTIP) is required every two years, for which a conformity determination is required. Amendments to both the RTP and FTIP also must have conformity demonstrated, including a full-scale revision of the regional analysis if regionally significant projects are added, deleted, or significantly modified. Regional conformity is demonstrated by showing that the project is included in a conforming RTP and FTIP with substantially the same design concept and scope that was used for the regional conformity analysis. The SCAG prepares a RTP every four years and a FTIP every two years.

### *Project-Level Conformity*

On March 10, 2006, the U.S. EPA published a final rule (71 FR 12468) establishing transportation conformity requirements for analyzing the project-level local PM and CO air quality impacts of transportation projects. Localized air quality impact analyses are commonly referred to as "hot-spot" analyses. Hot-spot analyses assesses the air quality impacts on a scale smaller than an entire nonattainment or maintenance area, including, for example, congested intersections or transit terminals. According to the final rule project level conformity is demonstrated by showing that the project will not cause a localized exceedance of applicable CO and/or PM standards, and that it will not interfere with "timely implementation" of Transportation Control Measures (TCM) called out in the SIP.

The conformity rule required a qualitative PM hot-spot analysis to be performed until such time that the U.S. EPA releases guidance on how to conduct quantitative PM hot-spot analyses. U.S. EPA guidance for conducting quantitative PM hot-spot analysis was recently released in December 2010(65). Accordingly, a quantitative PM hot-spot analysis is now required for projects that are determined to be a Project of Air Quality Concern (POAQC), as determined through interagency consultation. The interagency consultation process is required for completing project-level conformity determinations and hot-spot analyses. For projects that are

[65] *Based on recent guidance adopted by the US EPA, December 2010. Transportation Conformity Guidance for Quantitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas. EPA-420-B-10-040. Available at Website url: http://www.epa.gov/otaq/stateresources/transconf/policy/420b10040.pdf.*

determined through interagency consultation to not be POAQC a PM hot-spot analysis is not required.

#### 2.12.1.2 State Regulations

##### *California Clean Air Act*

The California Air Resources Board (CARB) administers air quality policy in California. The California Ambient Air Quality Standards (CAAQS) were established in 1969 pursuant to the Mulford-Carrell Act. These standards are generally more stringent and apply to more pollutants than the NAAQS (i.e., visibility reducing particulates, hydrogen sulfide, and sulfates). The California Clean Air Act (CCAA), which was approved in 1988, requires that each local air district prepare and maintain an air quality management plan (AQMP) to achieve compliance with CAAQS. These AQMPs also serve as the basis for the preparation of the SIP for California.

CARB also administers the State's mobile source emissions control program and oversees air quality programs established by State statute, such as AB 2588, the Air Toxics "Hot Spots" Information and Assessment Act of 1987.

#### 2.12.1.3 Air Quality Management

Within the SCAB, air quality is managed by various federal, state, regional, and local agencies, including the U.S. EPA, CARB, and the SCAQMD. The responsibilities of these various agencies are discussed in more detail, as follows:

##### *U.S. Environmental Protection Agency*

The U.S. EPA is responsible for establishing the NAAQS and enforcing the FCAA. This agency also regulates emission sources under the exclusive authority of the federal government, such as aircraft, certain types of ships and locomotives. The U.S. EPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must also meet the often stricter emission standards established by the CARB.

##### *California Air Resources Board*

The CARB became part of the California Environmental Protection Agency (Cal EPA) in 1991. The agency is responsible for ensuring implementation of the CCAA, meeting state requirements of the FCAA, and establishing the CAAQS (refer to *Table 2-33*). It is also responsible for setting vehicle emission standards and fuel specifications, and regulating emissions from other sources such as consumer products and certain types of mobile equipment (e.g., lawn & garden equipment, industrial forklifts).

### *South Coast Air Quality Management District*

Because Southern California has one of the worst air quality problems in the nation, the SCAQMD was created by the 1977 Lewis Air Quality Management Act. Four county air pollution control agencies were merged into one regional district to better address the issue of improving air quality in Southern California. Under the act, revised and renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the SCAB. Specifically, the SCAQMD is responsible for monitoring air quality and planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the district.

Programs developed include air quality rules and regulations that regulate stationary source emissions, including area and point sources and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements and issuing permits for stationary sources and ensuring that new, modified, or relocated stationary sources do not create net emissions increases. The SCAQMD enforces air quality rules and regulations through a variety of means, including inspections, educational and training programs, and fines.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the SCAG and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB in coordination with federal agencies provides the control element for mobile sources.

#### 2.12.1.4 Regulated Air Pollutants and Standards

Air pollutants regulated by the FCAA and CCAA or other laws fall under three main categories: (1) criteria air pollutants, (2) toxic air contaminants (TAC), and (3) global warming and ozone-depleting gases. Pollutants in each of these categories are monitored and regulated differently. Criteria air pollutants are measured by sampling concentrations in the ambient air; toxic air contaminants are measured at the source and in the general atmosphere; and, global warming and ozone-depleting gases are not monitored but are subject to federal and regional policies that call for their reduction and eventual phase out. The following provides a discussion of criteria air pollutants and TACs. Greenhouse gases (GHG) are discussed later in this section and in Chapter 3.0.

### *Criteria Air Pollutants*

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health. The national and state ambient air quality standards have been set at levels to protect

human health with a determined margin of safety. For some pollutants, there are also secondary standards to protect the environment. $O_3$ and PM are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as CO, Nitrogen Dioxide ($NO_2$), Sulfur Dioxide ($SO_2$), and lead (Pb) are considered to be local pollutants because they tend to accumulate in the air locally. PM is also considered as a local pollutant. In the area of the proposed project site, ozone and particulate matter are of particular concern.

Attainment Status

Under the CCAA, the CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone, CO, and $NO_2$ as "does not meet the primary standards," "cannot be classified," or "better than national standards." For $SO_2$, areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used. The U.S. EPA uses the same sub-categories for nonattainment status: serious, severe, and extreme. In 1991, U.S. EPA assigned new nonattainment designations to areas that had previously been classified as Group I, II, or III for $PM_{10}$ based on the likelihood that they would violate national $PM_{10}$ standards. All other areas are designated "unclassified."

Volatile Organic Compounds (VOC)

It should be noted that there are no state or federal ambient air quality standards for VOCs because they are not classified as criteria pollutants. VOCs are regulated, however, because a reduction in VOC emissions reduces certain chemical reactions which contribute to the

formation of ozone. VOCs are also transformed into organic aerosols in the atmosphere, contributing to higher $PM_{10}$ and lower visibility levels.

Although health-based standards have not been established for VOCs, health effects can occur from exposures to high concentrations of VOC. Some hydrocarbon components classified as VOC emissions are hazardous air pollutants. Benzene, for example, is a hydrocarbon component of VOC emissions that is known to be a human carcinogen.

### Toxic Air Contaminants

TACs are air pollutants that may cause or contribute to an increase in mortality or serious illness, or which may pose a hazard to human health. TACs are usually present in minute quantities in the ambient air, but due to their high toxicity, they may pose a threat to public health even at very low concentrations. Because there is no threshold level below which adverse health impacts are not expected to occur, TACs differ from criteria pollutants for which acceptable levels of exposure can be determined and for which state and federal governments have set ambient air quality standards.

TACs therefore are not considered "criteria pollutants" under either the CAA or the CCAA, and are thus not subject to the NAAQS or CAAQS. Instead, the U.S. EPA and CARB regulate Hazardous Air Pollutants (HAP) and TACs, respectively, through statutes and regulations that generally require the use of the maximum or best available control technology to limit emissions. In conjunction with rules developed by the local air districts, CARB establishes the regulatory framework for TACs. At the national levels, the U.S. EPA has established National Emission Standards for HAPs (NESHAP), as required by the FCAA Amendments. These are technology-based source-specific regulations that limit allowable emissions of HAPs.

### Mobile Source Air Toxics (MSAT)

MSATs are a subset of the 188 air toxics defined in the FCAA and are federally regulated under 40 CFR 1502.22 by the U.S. EPA. MSATs include 21 compounds emitted from highway vehicles and non-road equipment. There are six main toxics including diesel exhaust, benzene, and formaldehyde, among others. Of these, diesel-exhaust particulate matter (DPM) is of primary concern. Most recently, the FHWA issued interim guidance on September 30, 2009 for the analysis of MSATs in NEPA documents.

### Asbestos

Asbestos is a term used for several types of naturally-occurring fibrous minerals found in rock or soil. Asbestos fibers can be very small, and can be easily suspended in air by wind or water. State and federal health officials consider all types of asbestos to be hazardous. No safe asbestos exposure level has been established. Asbestosis is a non-cancerous lung disease related to diffuse fibrous scarring of the lungs. Asbestosis can cause progressive shortness of breath and coughing.

Asbestos exposure can lead to lung cancer, or mesothelioma cancer, which attacks the thin membranes lining the lungs, chest, and abdominal cavity (CARB 2008).

Existing highway structures and surfaces may have ACM that are considered as HAPs. The demolition of these structures during the construction phase may cause the release of these HAPs in the air.

### 2.12.2 Affected Environment

An Air Quality Technical Report (URS, 2010) Quality Study Report (AMBIENT, 2011) were prepared for the proposed project. As discussed above, the proposed project is located in the SCAB and within the jurisdiction of the SCAQMD. The SCAQMD has jurisdiction over the SCAB. This area includes all of Orange County, all of Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAB is a sub-region of the district and covers an area of 6,745 square miles. The SCAB includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties.

Primary factors known to influence air quality within the SCAB include topography and meteorology, which can affect pollutant transport and dispersion from sources located within and outside of the SCAB. These air quality-related issues are discussed in more detail below.

#### 2.12.2.1 Topography

The SCAB is surrounded by mountains on three sides and the Pacific Ocean on the remaining side. The mountains serve as a barrier, preventing ready dispersion of pollutant concentrations. Prevailing wind patterns off the ocean carry pollutants eastward across the SCAB, enabling continual photochemical reactions to occur as new emissions are added to existing pollutant concentrations. Intense sunlight, present at the latitude of the SCAB, provides the ultraviolet light necessary to fuel the photochemical reactions that produce ozone (SCAQMD 1999).

#### 2.12.2.2 Regional Meteorology & Climate

Average wind speeds in the SCAB are light and primarily from the west. Mild sea breezes slowly carry pollutants inland. An inversion layer, which is a layer of warm air that lies over cooler, ocean-modified air, often acts as a lid, preventing air pollutants from escaping upward. In the summer, these temperature inversions are stronger than in winter and prevent ozone and other pollutants from escaping upward and dispersing. In the winter, a ground-level or surface inversion commonly forms during the night. Annual average temperature varies little throughout the SCAB averaging approximately 62 degrees Fahrenheit (°F). Based on historical data for the Los Angeles area, average temperatures range from a January low of approximately 49 °F to an August high of approximately 84 °F (WRCC 2011).

The state and national attainment status designations pertaining to the SCAB are summarized in *Table 2-34*. The SCAB is currently designated as a nonattainment area with respect to the state and federal ozone, $PM_{10}$, and $PM_{2.5}$ standards. The SCAB is also designated nonattainment for the state $NO_2$ standard. In addition, based on monitoring data obtained near a lead acid battery reclamation facility, Los Angeles County is currently designated nonattainment for the state and federal lead standards. With the exception of Los Angeles County, the remainder of the SCAB is designated attainment for the lead standards. The SCAB is designated attainment or unclassified for the remaining state and federal standards (CARB 2011).

**Table 2-34**
**Ambient Air Quality Attainment Designations for SCAB**

| Criteria Pollutant | State Designation | Federal Designation |
|---|---|---|
| Ozone | N | N (Extreme) |
| $PM_{2.5}$ | N | N |
| $PM_{10}$ | N | N (Serious)* |
| Carbon Monoxide | A | A/M |
| Nitrogen Dioxide | N | A/M |
| Sulfur Dioxide | A | A |
| Lead** | N | N |
| Sulfates | A | |
| Hydrogen Sulfide | U | |
| Visibility Reducing Particles | U | |

*N = Nonattainment*

*A = Attainment*

*U = Unclassified*

*M = Maintenance*

** Federal PM10 attainment redesignation request submitted.*

***State nonattainment designation for lead is based on monitoring data from a new site near a lead acid battery reclamation facility in the Los Angeles County portion of the SCAB, effective December 31, 2010; remainder of the SCAB is Attainment.*

*Source: SCAQMD 2011(a), SCAG September 2010. 2011 Federal Transportation Improvement Program;*

*US EPA. December 8, 2010. Electronic Code of Federal Regulations. website url: http://ecfr.gpoaccess.gov/cgi/t/text/text-id?c=ecfr&rgn=div8&view=text&node=40:17.0.1.1.1.3.1.6&idno=40.*

### 2.12.2.3 Air Quality Monitoring Data

Air pollutant concentrations are measured at several monitoring stations in the SCAB. The nearest ambient monitoring station to the project area that measures $O_3$, CO, $PM_{10}$, $PM_{2.5}$ and $NO_2$ is the Central Los Angeles station located at 1630 North Main Street. This station is located approximately 0.28 miles south of the project area. The maximum ambient concentrations of $O_3$, CO, $PM_{10}$, $PM_{2.5}$ and $NO_2$ for the past five years (2005 – 2009) at the Central Los Angeles

Station are presented in *Table 2-35*. Monitoring station locations within the SCAB are depicted in *Figure 2-34*.

As depicted, the state and federal ozone standards were exceeded on numerous occasions during the past five years. The state and federal standards for suspended particulates (i.e., $PM_{10}$ and $PM_{2.5}$) have also been exceeded on various occasions during the past five years.

#### 2.12.2.4 Sensitive Receptors

One of the most important reasons for air quality standards is the protection of those members of the population who are most sensitive to the adverse health effects of air pollution, termed "sensitive receptors." The term sensitive receptors refer to specific population groups, as well as the land uses where individuals would reside for long periods. Commonly identified sensitive population groups are children, the elderly, the acutely ill, and the chronically ill. Commonly identified sensitive land uses would include facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollutants. Residential dwellings, schools, parks, playgrounds, childcare centers, convalescent homes, and hospitals are examples of sensitive land uses.

Sensitive land uses in the project area include the Downey Recreation Center, which is located adjacent to North Spring Street, west of Avenue 18. The Young Nak Presbyterian Church of Los Angeles is located north of the project area near the intersection of North Broadway and Avenue 18. The Albion Street Elementary School and Children's Center are located approximately 775 feet south of the project area, near the intersection of Albion Street and Avenue 18. The nearest residential land uses are located adjacent to North Spring Street, between Aurora Street and Baker Street, and at the southeast corner of the North Spring Street/Avenue 18 intersection. Existing land uses and sensitive land uses in the vicinity of the project area are depicted in *Figure 2-35*.

### 2.12.3 Environmental Consequences

#### 2.12.3.1 Operational Impacts

##### *No Build Alternative and Alternative 1*

The viaduct and operating parameters would remain the same under the No Build Alternative and Build Alternative 1, therefore, no short-term or long-term air quality impacts are anticipated under this alternative. Under the No Build Alternative the proposed project's contribution to easing future traffic congestion would not occur. Since operational traffic impacts would not be reduced, associated air quality impacts also would not be reduced.

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## Table 2-35
## Pollutant Data from Central Los Angeles Monitoring Station (2005-2009)

| | Carbon Monoxide (CO) | | Ozone ($O_3$) | | | | Respirable Particulate Matter ($PM_{10}$) | | Fine Particulate Matter ($PM_{2.5}$) | | Nitrogen Dioxide ($NO_2$) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 1-hour | | 8-hour | | | | | | | |
| | Max 1-hr/8-hr Conc. (ppm) | Number of Days 1-hr/8hr Standard Exceeded | Max Conc. (ppm) | Number of Days National /State Standard Exceeded | Max National /State Conc. (ppm) [3] | Number of Days National /State Standard Exceeded | Max National/ State 24-hr Conc. ($\mu g/m^3$) [3] | Number of Days National/ State Standard Exceeded[2] | Max National/ State 24-hr Conc. ($\mu g/m^3$) [3] | Number of Days National Standard Exceeded[2] | Max 1-hour Conc. (ppm) | Number of Days State Standard Exceeded |
| 2009 | NA/2.17 | 0/0 | 0.139 | 1/3 | 0.100/0.101 | 2/5 | 72/70 | 0/24 | 61.6/64.1 | 7 | 0.115 | 0 |
| 2008 | 2.9/1.96 | 0/0 | 0.109 | 0/3 | 0.090/0.090 | 3/6 | 66/64 | NA /NA | 78.3/78.3 | 12 | 0.122 | 0 |
| 2007 | 3.2/2.2 | 0/0 | 0.115 | 0/3 | 0.102/0.103 | 3/6 | 78/77 | 0/31 | 64.1/64.1 | NA | 0.104 | 0 |
| 2006 | 3.5/2.7 | 0/0 | 0.108 | 0/8 | 0.079/0.079 | 3/7 | 59/58 | 0/18 | 56.2/56.2 | 12 | 0.111 | 0 |
| 2005 | 3.9/3.1 | 0/0 | 0.121 | 0/2 | 0.098/0.098 | 2/4 | 70/69 | 0/18 | 73.7/73.7 | 23 | 0.126 | 0 |

*Notes:*

*Based on reported data obtained from the California Air Resources Board's iADAM Air Quality Data Statistics (http://www.arb.ca.gov/adam/topfour/topfourdisplay.php) and the US EPA's Monitor Values Report-Criteria Air Pollutants (http://www.epa.gov/air/data/monvals.html?st~CA~California), accessed April 21, 2011.*

*Reflects estimated number of days where data is available. Measurements are not collected every day. Estimated days mathematically estimates how many days concentrations would have been greater than the level of the standard had each day been monitored.*

*State and national statistics may differ depending on samplers used and calculation methods.*

*ppm – parts per million*
*ug/$m^3$ – micrograms per cubic meter*

*NA-Not Available. There is insufficient (or no) data available to determine the value.*

*Source: Air Resources Board 2011, EPA 2011*

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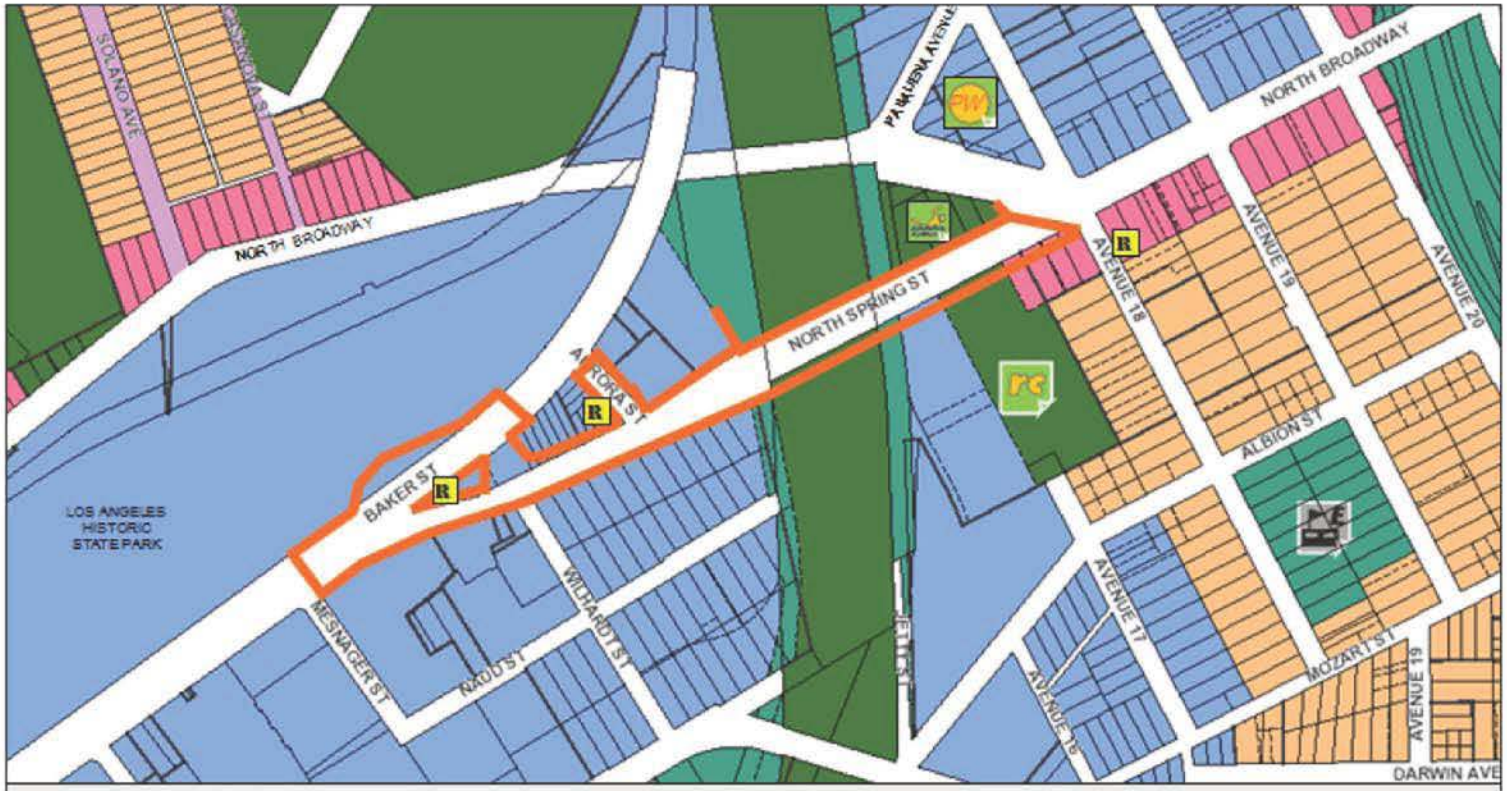
MONITORING STATIONS IN LOS ANGELES COUNTY

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-34




LA DPW ENGINEERING

SENSITIVE LAND USES IN THE PROJECT AREA

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-35

### *Build Alternatives 2 and 3*

Regional Air Quality Conformity

The proposed project is identified as Project ID #LA0C8086 and was included in the regional emissions analysis conducted by SCAG for the conforming 2008 RTP, Amendment #4, and in the Regional Transportation Improvement Program (RTIP), Amendment #08-34, and the 2011 FTIP. SCAG adopted the 2008 RTP Amendment #4 and the corresponding conformity determinations on November 4, 2010. Federal approval of the RTP Amendment #4 conformity determination was issued on December 8, 2010. The proposed project was also included in the 2011 FTIP, which was adopted by SCAG on September 2, 2010. Federal approval of the 2011 FTIP was issued on December 14, 2010.

The proposed project description was recently revised. The revised proposed project is described as: "North Spring St. over Los Angeles River, 0.4 miles west of I-5. Rehabilitate and widen 4 lane bridge (no added lanes) add sidewalks, upgrade bridge railings (53C0859)." The revised proposed project was included in the recent 2011 FTIP, Amendment 11-03. The 2011 FTIP, Amendment 11-03 was found to be consistent with the 2008 RTP, as currently amended, and Federal approval of 2011 FTIP Amendment 11-03 was issued on April 4, 2011. Therefore, the proposed project is determined to be consistent with the 2008 RTP (Ayala 2008).

Project Level Conformity

*CO Hotspot Analysis*

The proposed project is located in an attainment area for federal and state CO standards, and the existing CO concentrations in the project area are substantially below the ambient air quality standards. Additionally, the proposed project would result in improvements in predicted p.m. peak-hour LOS for the eastbound segment of North Broadway, would not affect the percentages of vehicles operating in cold start mode, and would not affect vehicle fleet percentages on area roadways. For these reasons, further analysis of localized mobile-source CO concentrations is not required.

*PM10 & PM2.5 Conformity Analysis*

In comparison to No Build conditions, the proposed project would not result in an increase in opening year 2015 or design year 2035 total vehicle or truck volumes. Furthermore, both the annual average daily traffic (AADT) and the percentage of trucks on area North Spring Street, with implementation of the proposed build alternatives would be less than their respective criterion at which point PM impacts would be anticipated to potentially occur (i.e., 125,000 vehicles and 8 percent trucks, respectively).

Build Alternatives 2 and 3 would improve predicted p.m. peak-hour conditions for the eastbound segment of North Spring Street, between Wilhardt Street and North Broadway, under both opening year 2015 and design year 2035 conditions. In comparison to existing conditions, this the predicted LOS for this roadway segment would improve from an existing LOS C to an LOS B, for both opening year 2015 and design year 2035 conditions, with project implementation. In comparison to No Build Alternative, the proposed project would not result in a change in the predicted LOS for a.m. peak-hour conditions, nor would the project result in a predicted change in LOS for the westbound segment of this roadway.

Pursuant to 40 CFR 93.123(b)(i) and (ii), any new and expanded highway project that does not involve a significant number or increase in the number of diesel vehicles is not a project of air quality concern and consequently does not require a $PM_{10}$ or $PM_{2.5}$ hotspot analysis. Also, through interagency consultation review requirements, the proposed project was reviewed by the SCAG Transportation Conformity Working Group (TCWG) during its January 26, 2010 meeting. TCWG found the project not to be a project of air quality concern. Therefore, $PM_{2.5}$ and $PM_{10}$ hotspot analyses were not required for this project.

*Mobile-Source Air Toxics (MSATs) Analysis*

The purpose of the proposed project is to correct existing geometrical and design deficiencies, and to address seismic vulnerability issues. An additional purpose of the project is to improve bicycle and pedestrian circulation and safety across the river and railroad tracks. As a result, the proposed project would not create or substantially alter a major intermodal freight facility, nor would the proposed project create new or add significant capacity to urban highways such as interstates, urban arterials, or urban collector-distributor routes with traffic volumes where the AADT is projected to be in the range of 140,000 to 150,000, or greater, by the design year.

The proposed project is not projected to result in changes in traffic volumes or a meaningful change in vehicle speeds along roadway segments within the project area. The proposed project would not affect vehicle mix or vehicle miles traveled relative to the no-build alternative. Furthermore, estimated traffic volumes for North Spring Street, between Wilhardt Street and North Broadway would be substantially lower than the FHWA criterion value of 140,000 AADT, which is identified as the minimum volume for higher potential MSAT effects (FHWA 2009). As a result, it is expected that the proposed project would not result in an appreciable difference in overall MSAT emissions when compared to the No Build Alternative.

### 2.12.4 Construction Impacts

#### 2.12.4.1 No Build Alternative

No construction emissions would occur under the No Build Alternative, therefore, no short-term or long-term construction-related air quality impacts would occur.

### 2.12.4.2 Build Alternative 1

Since less construction activity would be involved, construction impacts from this alternative would be less than those described below for Build Alternatives 2 and 3.

### 2.12.4.3 Build Alternatives 2 and 3

The construction phase of the proposed project would include demolition of existing structures and surfaces, and construction of new structures and surfaces that may be sources of fugitive emissions of particulate matter/dust as well emissions of criteria pollutants. Construction of the proposed build alternatives is anticipated to last approximately 4.5 years. Detail quantitative construction phase analysis is not required in this study since construction of the proposed project would last less than five years. However, potential fugitive dust emissions sources from construction activities may include:

- Demolition of existing structures and surfaces,
- Site preparation (excavation, drilling, blasting),
- Handling and transfer of material (bulldozing, stockpiling, truck loading),
- Wind erosion from exposed debris piles and exposed area,
- Vehicular travel on unpaved area,
- Mud and dirt carry-out onto paved surfaces,
- Storage piles, and
- Fabrication processes.

During construction, short-term degradation of air quality may occur due to the release of particulate emissions (airborne dust) generated by excavation, grading, hauling, and various other activities. Emissions from construction equipment also are anticipated and would include CO, nitrogen oxides (NOx), VOCs, directly-emitted particulate matter ($PM_{10}$ and $PM_{2.5}$), and TACs such as DPM. Ozone is a regional pollutant that is derived from NOx and VOCs in the presence of sunlight and heat.

Site preparation and roadway construction would involve clearing, cut-and-fill activities, grading, removing or improving existing roadways, and paving roadway surfaces. Construction-related effects on air quality would likely be greatest during the site preparation phase because most engine emissions are associated with the excavation, handling, and transport of soils to and from the site. If not properly controlled, these activities would temporarily generate $PM_{10}$, $PM_{2.5}$, and small amounts of CO, $SO_2$, NOx, and VOCs.

Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. Unless properly controlled, vehicles leaving the site would deposit mud on local streets, which could be an additional source of airborne dust after it dries. $PM_{10}$ emissions would vary from day-to-day, depending on the nature and magnitude of construction activity and local weather conditions. $PM_{10}$ emissions would depend on soil moisture, silt content of soil, wind speed, and the amount of equipment operating. Larger dust particles would settle near the source, while fine particles would be dispersed over greater distances from the construction site.

#### *Naturally-Occurring Asbestos*

In general, during the construction phase of a project, naturally-occurring asbestos entrainment may impact the project area. The two common sets of naturally-occurring asbestos are the serpentine and ultramafic rocks. The proposed project is located in Los Angeles County. According to the California Department of Conservation (CDC), Division of Mines and Geology report on naturally-occurring asbestos areas (CDC 2000), Los Angeles County is not likely to contain naturally-occurring asbestos. Therefore, no potential impacts from naturally-occurring asbestos during the construction phase of the proposed project would occur.

### 2.12.5 Cumulative Impacts

The cumulative setting for air quality is considered to be in the city of Los Angeles, located in the SCAB. The SCAB is currently a non-attainment area for ozone, carbon monoxide, nitrogen dioxide, and fine particulate matter. During construction, fugitive dust emissions would result from land clearing, demolition, ground excavation, cut and fill operations, and equipment traffic over temporary roads at construction sites. Mobile sources emissions, primarily $NO_x$, result from the use of construction equipment such as bulldozers, trucks, and scrapers.

Because the proposed project would maintain the same number of through lanes and would not increase capacity on the viaduct, the project would not be expected to result in an increase in air pollution levels above those existing today. With implementation of minimization measures to reduce construction-related emissions, project contributions to cumulative impacts are considered less than cumulatively considerable.

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

Construction of the proposed project would be required to comply with Caltrans' Standard Specifications, Section 7-1.01F “Air Pollution Control,” and Section 10 “Dust Control.” Caltrans' specifications pertaining to dust control and dust palliative requirements are a required part of construction contracts and should effectively reduce and control emission impacts during construction. These requirements include daily watering of areas disturbed by construction

activities. In addition, the State Health and Safety Code requires the contractor to prevent visible dust from leaving the construction site.

The following measures would reduce any air quality impact resulting from construction activities:

- The construction contractor shall comply with Caltrans' Standard Specifications Section 7-1.01F and Section 10 of Caltrans' Standard Specifications (1999).
- Section 7, "Legal Relations and Responsibility," addresses the contractor's responsibility on many items of concern, such as: air pollution; protection of lakes, streams, reservoirs, and other water bodies; use of pesticides; safety; sanitation; and convenience of the public; and damage or injury to any person or property as a result of any construction operation. Section 7-1.01F specifically requires compliance by the contractor with all applicable laws and regulations related to air quality, including air pollution control district and air quality management district regulations and local ordinances.
- Section 10 is directed at controlling dust. If dust palliative materials other than water are to be used, material specifications are contained in Section 18.
- Apply water or dust palliative to the site and equipment as frequently as necessary to control fugitive dust emissions.
- Spread soil binder on any unpaved roads used for construction purposes, and all project construction parking areas.
- Wash off trucks as they leave the right-of-way as necessary to control fugitive dust emissions.
- Properly tune and maintain construction equipment and vehicles. Use low-sulfur fuel in all construction equipment as provided in CCR Title 17, Section 93114.
- Develop a dust control plan, if necessary, documenting sprinkling, temporary paving, speed limits, and expedited revegetation of disturbed slopes as needed to minimize construction impacts to existing communities. A dust control plan is only recommended when a large operation notification is filed with the SCAQMD.
- Locate equipment and materials storage sites as far away from residential and park uses as practical. Keep construction areas clean and orderly.
- Establish environmentally sensitive areas (ESA) for sensitive air receptors within which construction activities involving extended idling of diesel equipment would be prohibited, to the extent that is feasible.

- Use track-out reduction measures such as gravel pads at project access points to minimize dust and mud deposits on roads affected by construction traffic.
- Cover all transported loads of soils and wet materials prior to transport, or provide adequate freeboard (space from the top of the material to the top of the truck) to reduce $PM_{10}$ and deposition of particulate matter during transportation.
- Remove dust and mud that are deposited on paved, public roads due to construction activity and traffic to decrease particulate matter.
- Route and schedule construction traffic to avoid peak travel times as much as possible, to reduce congestion and related air quality impacts caused by idling vehicles along local roads.
- Install mulch or plant vegetation as soon as practical after grading to reduce windblown particulate in the area.

#### 2.12.6.1 SCAQMD Rules & Regulations

SCAQMD Rule 403 requires that fugitive dust be controlled with the best available control measures in order to reduce dust so that it does not remain visible in the atmosphere beyond the property line of the proposed project. Rule 403 requires that construction activities utilize the applicable best available control measures identified in Rule 403. The applicable control measures target various construction operations such as backfilling, clearing and grubbing, crushing, cut and fill, demolition, earth-moving activities, bulk material import and export, construction staging, stockpiles/bulk material handling, trenching, and loading. SCAQMD Rule 403 dust suppression requirements are summarized in *Tables 2-36* and *2-37*.

**Table 2-36 SCAQMD Rule 403 Measures for High Wind Conditions**

| Fugitive Dust Source Category | | Control Measures |
|---|---|---|
| Earth-moving | (1A) | Cease all active operations; OR |
| | (2A) | Apply water to soil not more than 15 minutes prior to moving such soil. |
| Disturbed surface areas | (0B) | On the last day of active operations prior to a weekend, holiday, or any other period when active operations do not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of six months; OR |
| | (1B) | Apply chemical stabilizers prior to wind event; OR |
| | (2B) | Apply water to all un-stabilized disturbed areas 3 times per day. If there is any evidence of wind driven fugitive dust, watering frequency is increased to a minimum of four times per day; OR |

| Fugitive Dust Source Category | | Control Measures |
|---|---|---|
| | (3B) | Take the actions specified in Table 2, Item (3c); OR |
| | (4B) | Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas. |
| Unpaved roads | (1C) | Apply chemical stabilizers prior to wind event; OR |
| | (2C) | Apply water twice [once] per hour during active operation; OR |
| | (3C) | Stop all vehicular traffic. |
| Open storage piles | (1D) | Apply water twice per hour; OR |
| | (2D) | Install temporary coverings. |
| Paved road track-out | (1E) | Cover all haul vehicles; OR |
| | (2E) | Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads. |
| All Categories | (1F) | Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2-25 may be used. |

## Table 2-37 SCAQMD Rule 403 Measures for Normal Wind Conditions

| Fugitive Dust Source Category | | Control Actions |
|---|---|---|
| Earth-moving (except construction cutting and filling areas, and mining operations) | (1a) | Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations each subsequent four-hour period of active operations; OR |
| | (1a-1) | For any earth-moving which is more than 100 feet from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 feet in length in any direction. |
| Earth-moving: Construction fill areas: | (1b) | Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM method D-2216, or other equivalent method approved by the Executive Officer, the California Air Resources Board, and the U.S. EPA. For areas which have optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the Executive Officer and the California Air Resources Board and the U.S. EPA, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first three hours of active operations during a calendar day, and two such evaluations during each subsequent four-hour period of active operations. |
| Earth-moving: Construction cut areas and mining operations: | (1c) | Conduct watering as necessary to prevent visible emissions from extending more than 100 feet beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope |

| Fugitive Dust Source Category | | Control Actions |
|---|---|---|
| | | conditions or other safety factors. |
| Disturbed surface areas (except completed grading areas) | (2a/b) | Apply dust suppression in sufficient quantity and frequency to maintain a stabilized surface. Any areas which cannot be stabilized, as evidenced by wind driven fugitive dust must have an application of water at least twice per day to at least 80 percent of the un-stabilized area. |
| Disturbed surface areas: Completed grading areas | (2c) | Apply chemical stabilizers within five working days of grading completion; OR |
| | (2d) | Take actions (3a) or (3c) specified for inactive disturbed surface areas. |
| Inactive disturbed surface areas | (3a) | Apply water to at least 80 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions; OR |
| | (3b) | Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface; OR |
| | (3c) | Establish a vegetative ground cover within 21 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of un-stabilized ground within 90 days of planting, and at all times thereafter; OR |
| | (3d) | Utilize any combination of control actions (3a), (3b), and (3c) such that, in total, these actions apply to all inactive disturbed surface areas. |
| Unpaved Roads | (4a) | Water all roads used for any vehicular traffic at least once per every two hours of active operations ; OR |
| | (4b) | Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 miles per hour; OR |
| | (4c) | Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface. |
| Open storage piles | (5a) | Apply chemical stabilizers; OR |
| | (5b) | Apply water to at least 80 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust; OR |
| | (5c) | Install temporary coverings; OR |
| | (5d) | Install a three-sided enclosure with walls with no more than 50 percent porosity which extends, at a minimum, to the top of the pile. |
| All Categories | (6a) | Any other control measures approved by the Executive Officer and the U.S. EPA as equivalent to the methods specified in Table 2-26 may be used. |

### 2.12.7 Climate Change

Climate change is analyzed in Chapter 3. Neither the U.S. EPA nor FHWA has promulgated explicit guidance or methodology to conduct project-level greenhouse gas analysis. As stated on FHWA's climate change website (http://www.fhwa.dot.gov/hep/climate/index.htm), climate change considerations should be integrated throughout the transportation decision-making

process–from planning through project development and delivery. Addressing climate change mitigation and adaptation up front in the planning process will facilitate decision-making and improve efficiency at the program level, and will inform the analysis and stewardship needs of project level decision-making. Climate change considerations can easily be integrated into many planning factors, such as supporting economic vitality and global efficiency, increasing safety and mobility, enhancing the environment, promoting energy conservation, and improving the quality of life.

Because there have been more requirements set forth in California legislation and executive orders regarding climate change, the issue is addressed in the CEQA chapter of this environmental document and may be used to inform the NEPA decision. The four strategies set forth by FHWA to lessen climate change impacts do correlate with efforts that the State has undertaken and is undertaking to deal with transportation and climate change; the strategies include improved transportation system efficiency, cleaner fuels, cleaner vehicles, and reduction in the growth of vehicle hours travelled.

## 2.13 Noise

This section evaluates the potential of the proposed project to adversely affect existing ambient noise characteristics within the proposed project area.

### 2.13.1 Regulatory Setting

The noise impact evaluation criteria for this study follow the Noise Abatement Criteria (NAC) established by FHWA in the *Procedures for Abatement of Highway Traffic Noise and Construction Noise* (23 CFR Part 772, 2003), criteria adopted by Caltrans in the *Traffic Noise Analysis Protocol* (Caltrans, May 2011) and the *Technical Noise Supplement (TeNS)* (Caltrans, 2009), and City noise criteria and standards in the municipal code.

#### 2.13.1.1 FHWA Regulations

Title 23, Part 772 of the CFR provides procedures for conducting highway-project noise studies and implementing noise abatement measures to help protect the public health and welfare, establishes NAC, and includes requirements for information to be given to local officials for use in planning and designing highways. Under this regulation, noise abatement must be considered if the project is predicted to result in a traffic noise impact.

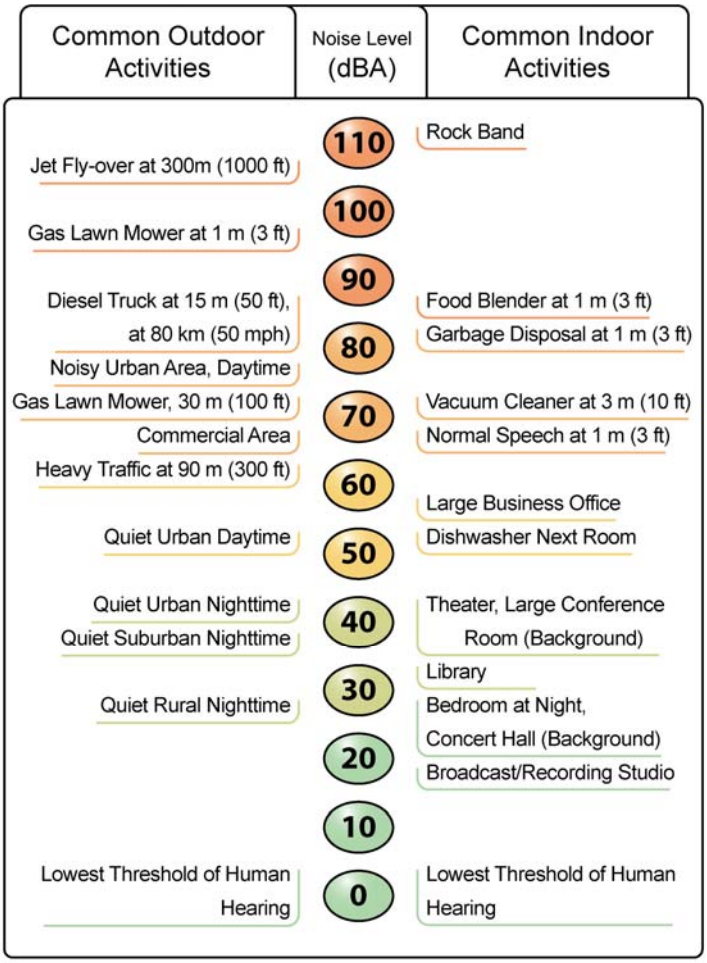
A traffic noise impact is considered to occur when the project results in a substantial noise increase or when the predicted noise levels approach or exceed the NAC specified in the regulation. 23 CFR 772 does not specifically define what constitutes a substantial increase or the term approach; rather, it leaves interpretation of these terms to the State highway agencies. Noise abatement measures that are reasonable, feasible, and likely to be incorporated into the project must be identified. Noise impacts for which no apparent solution is available must also be identified. *Table 2-38* below presents the FHWA NAC followed by *Table 2-39*, which presents common environmental noise levels.

**Table 2-38 FHWA Noise Abatement Criteria**

| Activity Category | NAC, Hourly A- Weighted Noise Level, dBA $L_{eq}(h)$ | Description of Activities |
|---|---|---|
| A | 57 Exterior | Lands on which 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 | 67 Exterior | Picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. |
| C | 72 Exterior | Developed lands, properties, or activities not included in Categories A or B above. |
| D | -- | Undeveloped lands. |
| E | 52 Interior | Residence, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

Source: Noise Study Report, URS Corporation. January 2008.

**Table 2-39 Common Environmental Noise Levels**




### 2.13.1.2 Caltrans Protocol

The TeNS is to provide technical background information on transportation-related noise in general and highway traffic noise in particular. It is designed to elaborate on technical concepts and procedures referred to in the Caltrans Traffic Noise Analysis Protocol. The Caltrans TeNS establishes guidelines for construction of noise barriers along highways where sensitive receivers are located and specifies parameters such as barrier dimensions, locations, type of barriers, and standard aesthetic treatments. Pursuant to FHWA and Caltrans policies, traffic noise abatement must be considered for projects when the following criteria are met:

1. Predicted regular noisiest-hour level is expected to approach or exceed FHWA NAC (67 A-weighted decibels (dBA) equivalent sound level ($L_{eq}$) for residences or other Category B land uses) or increase ambient noise levels substantially. Caltrans considers an increase of 12 dBA to be a substantial increase;
2. A feasible noise barrier must provide a minimum traffic noise reduction of 5 dBA to achieve a noticeable change in the noise level. Greater levels of noise reduction are encouraged

providing they can be achieved within the reasonableness guidelines discussed below. This is also discussed further in the Traffic Noise Analysis Protocol;

3. A reasonable noise barrier must be cost-effective, and consideration should be taken as to the number of residences that would benefit from the barrier. In addition to cost of abatement and noise-related factors such as absolute noise levels and change in noise levels, many other factors are considered as part of the comprehensive reasonable analysis. These factors include date of development along the highway; impacts of noise abatement on other resources; opinions of impacted residents; and safety, social, economic, environmental, legal, and technological factors; and,
4. The noise barrier should interrupt the line-of-sight between the noise source (traffic on the roadway, including truck stacks, which are assumed to be 12 feet above the road) and the receiver (assumed to be 5 feet high).

"Unusual and extraordinary" noise abatement strategies, such as providing noise insulation of residential units, are rarely employed. It is stated in the Traffic Noise Analysis Protocol that when considering extraordinary abatement measures, it must be demonstrated that the affected activities experience traffic noise to a far greater degree than other similar activities adjacent to highway facilities (i.e., private residential units would have post-project exterior noise levels of 75 dBA Leq, or higher), or the project causes a noise level increase of 30 dBA or more over predicted noise levels if no project was constructed. However, the Caltrans protocol does recommend that construction noise levels normally shall not exceed the maximum noise levels of 86 dBA (Lmax) at a distance of 50 feet (15 meters). If construction noise is anticipated to be a substantial problem, land uses and activities that could be affected by the construction activity and measures necessary to minimize or eliminate adverse construction noise impacts on the communities shall be examined.

### *FHWA Construction Noise Regulations*

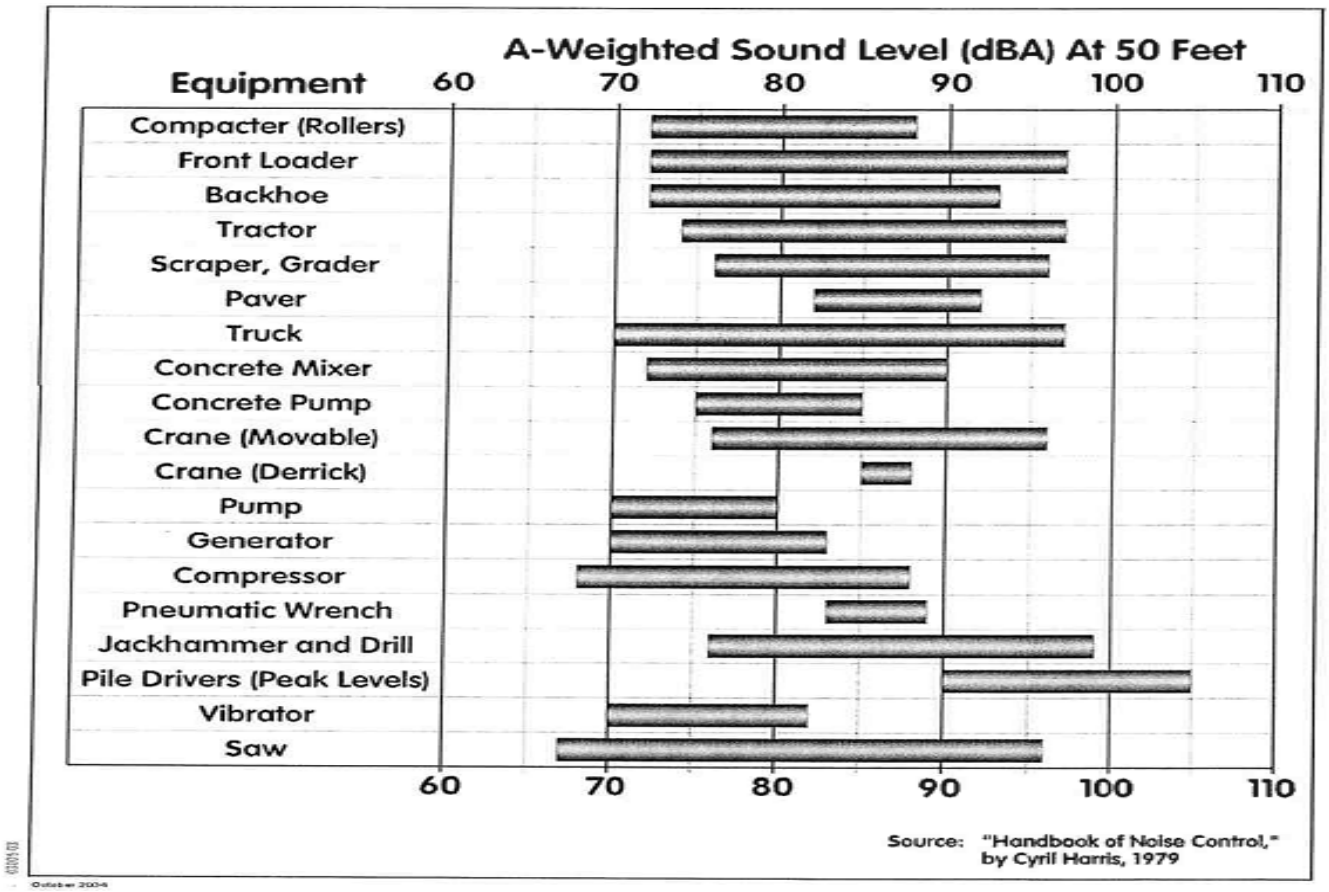
23 CFR 772 requires that construction noise impacts be identified. FHWA Roadway Construction Noise Model (FHWA, August 2006) can be used to determine if construction would result in adverse construction impacts on land uses or activities in the project area.

During the construction phases of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction noise is regulated by Caltrans standard specifications, Section 7-1.011, Sound Control Requirements. These requirements state that noise levels generated during construction shall comply with applicable local, state, and federal regulations.

*Table 2-40* summarizes typical noise levels produced by construction equipment commonly used on roadway construction projects. As indicated, equipment involved in construction is expected to generate noise levels ranging from 70 to 90 dBA at a distance of 15 meters (50 feet). Noise

produced by construction equipment would be reduced over distance at a rate of about 6 dBA per doubling of distance.

**Table 2-40 Construction Equipment Noise Levels**




In accordance with federal and State policies, construction noise levels should not exceed 86 dBA (Lmax) at a distance of 50 feet. No adverse noise impacts from construction are anticipated because construction would be conducted in accordance with Caltrans standard specifications and would be short-term, intermittent, and dominated by local traffic noise. Implementing the following measures would minimize temporary construction noise impacts:

1. Equipment noise control is needed to reduce the noise emissions from construction sites by mandating a specified noise levels for design of new equipment, and updating old equipment with new noise control devices and techniques presented below:
   - Mufflers are very effective devices, which reduce the noise emanating from the intake or exhaust of an engine, compressor, or pump. The fitting of effective mufflers on all new equipment and retrofitting of mufflers on existing equipment is necessary to yield an immediate noise reduction at all types of road construction sites.

- Sealed and lubricated tracks for crawler mounted equipment will lessen the sound radiated from the track assembly resulting from metal to soil and metal to metal contact. Contractors and site engineers and inspectors should ensure that the tracks are kept in excellent condition by periodic maintenance and lubrication.
- Lowering exhaust pipe exit height closer to the ground can result in an off-site noise reduction. Barriers are more effective in attenuating noise when the noise source is closer to ground level.
- General noise control technology can have substantially quieter construction equipment when manufacturers apply the state of the art technology to new equipment or repair old equipment to maintain original equipment noise levels.

2. In-use site noise control is necessary to prevent existing equipment from producing noise levels in excess of specified limits. Any equipment that produces noise levels less than the specified limits would not be affected. However, those exceeding the limit would be required to meet compliance by repair, retrofit, or elimination. New equipment with the latest noise sensitive components and noise control devices are generally quieter than older equipment, if properly maintained and inspected regularly. They should be repaired or replaced if necessary to maintain the in-use noise limit. All equipment applying the in-use noise limit would achieve an immediate noise reduction if properly enforced.
3. Site restrictions should be applied to achieve noise reduction through different methods, resulting in an immediate reduction of noise emitted to the community without requiring any modification to the source noise emissions. The methods include shielding with barriers for equipment and site, truck rerouting and traffic control, time scheduling, and equipment relocation. The effectiveness of each method depends on the type of construction involved and the site characteristics.
4. Shielding with barriers should be implemented at an early stage of a project to reduce construction equipment noise. The placement of barriers must be carefully considered to reduce limitation of site access. Barriers may be natural or man-made, such as excess landfill used as a temporary berm strategically placed to act as a barrier.
5. Efficient rerouting of trucks and control of traffic activity on construction site will reduce noise due to vehicle idling, gear shifting and accelerating under load. Planning proper traffic control will result in efficient work and reduce noise levels. In addition, rerouting trucks does not reduce noise levels but transfer noise to other areas that are less sensitive to noise.
6. Time scheduling of activities should be implemented to minimize noise impact on exposed areas. Local activity patterns and surrounding land uses must be considered in establishing site curfews. However, limiting working hours can decrease productivity. Sequencing the use

of equipment with relatively low noise levels versus equipment with relatively high noise levels during noise sensitive periods is an effective noise control measure.

7. Equipment location should be as far from noise sensitive land use areas as possible. The contractor should substitute quieter equipment or use quieter construction processes at or near noise sensitive areas.

8. Educating contractors and their employees to be sensitive to noise impact problems and noise control methods. This may be one of the most cost-effective ways to help operators and supervisors become more aware of the construction site noise problem, and implement the various methods of improving the conditions. A training program for equipment operators is recommended to instruct them in methods of operating their equipment to minimize environmental noise. Many training programs are presently given on the subject of job safety. This can be extended to include the impact due to noise and methods of abatement.

#### 2.13.1.3 The City of Los Angeles Noise Criteria/Standards

The LAMC (Section 41.40 and Chapter XI, Articles 1 though 6) establishes regulations regarding allowable increases in noise levels in terms of established noise criteria. Supplementing these regulations, the City has also established Community Noise Equivalent Level (CNEL) guidelines that are used for land use planning purposes.

##### *Construction Noise Regulations*

The City's noise ordinance has noise limits for construction activities. Section 112.05 of the LAMC states that construction and industrial machinery shall not exceed a maximum of 75 dBA at a distance of 50 feet (15 meters), except where compliance is technically infeasible. "The burden of proving that compliance is technically infeasible shall be upon the person or persons charged with a violation of this section. Technical infeasibility shall mean that said noise limitations cannot be complied with despite the use of mufflers, shields, sound barriers, and/or any other noise reduction device or technique during the operation of the equipment."

Section 41.40 of the LAMC restricts construction activities during different hours of the day. According to this code, no person shall perform any construction or repair work that makes loud noises that disturb persons occupying sleeping quarters in any place of residence between the hours of 9:00 p.m. of one day and 7:00 a.m. of the following day. Furthermore, the code prohibits any person other than an individual homeowner engaged in the repair or construction of his single family dwelling from performing any construction or repair work on land occupied by residential buildings, or within 500 feet (152 meters) of land so occupied, before 8:00 a.m. or after 6:00 p.m. on any Saturday nor at any time on any Sunday. In the event that the tight project construction schedule would necessitate construction activities to occur outside of the hours allowed by the City's noise ordinance, a variance shall be obtained.

In addition, per the Construction Noise Section according to 23 CFR 772 and Section 7-1.1011 of the Caltrans Standard Specifications, the Contractor would comply with all local sound control and noise level rules, regulations, and ordinances which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job related to the job, would be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine would be operated on the project without the muffler.

If adverse construction noise impacts are anticipated, project plans and specifications should identify abatement measures that would minimize or eliminate adverse construction noise impacts to the community. When construction noise abatement is identified, Caltrans would consider the benefits achieved and the overall adverse social, economic, and environmental effects and the costs of the construction noise abatement measures. If noise barriers are planned as part of the project, Caltrans would consider constructing the barriers before beginning project construction, so that the barriers can reduce construction noise transmission to adjacent land uses. Construction of barriers before project construction can be accomplished through a separate contract or as a first phase of work under the project construction contract.

#### *City of Los Angeles CNEL Guidelines*

The City has adopted local guidelines based, in part, on the community noise compatibility guidelines established by the State Department of Health Services for use assessing the compatibility of various land use types with a range of noise levels. However, since the existing land use is the same as the proposed land use, the CNEL guidelines do not warrant further analysis.

### 2.13.2 Affected Environment

A Noise Study Report was completed for the proposed project (URS Corporation, 2008). A Noise Study Report was required for this project because: 1) it is a Type 1 project that results in a change to either the horizontal or vertical alignment of the roadway, and 2) the existing and future traffic related noise levels exceeded the FHWA noise abatement criteria at adjacent noise sensitive land uses.

#### 2.13.2.1 Fundamentals of Noise

Noise is defined as sound that is loud, unpleasant, unexpected, or undesired. A continuous sound can be described by its frequency (pitch) and its amplitude (loudness). The loudness of sound increases and decreases with increasing and decreasing amplitude. These units are called decibels (dB).

Because dB are logarithmic units, sound pressure levels (Lp) cannot be added or subtracted by ordinary arithmetic means. When two sounds of equal Lp are combined, they produce a combined Lp, which is 3 dB greater than the original individual Lp. In other words, sound energy must be doubled to produce a 3-dB increase. If two sound levels differ by 10 dB or more, the combined Lp is equal to the higher Lp; in other words, the lower sound level does not increase the higher sound level.

Sound-pressure level alone is not a reliable indicator of loudness. The frequency, or pitch, of a sound also has a substantial effect on how humans respond. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear. In general, the healthy human ear is most sensitive to sounds between 1,000 Hertz (Hz) and 5,000 Hz, and it perceives a sound within that range as being more intense than a sound of higher or lower frequency with the same magnitude.

To approximate the frequency response of the human ear, a series of Lp adjustments is usually applied to the sound level at different frequencies. These adjustments are referred to as a weighting network. The A-scale weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. Noise levels for traffic noise reports are typically reported in terms of dBA. In environmental noise studies, A-weighted sound pressure levels are commonly referred to as noise levels.

Noise in our daily environment fluctuates over time. Some noise levels occur in regular patterns; others are random. Some noise levels fluctuate rapidly, others slowly. Some noise levels vary widely; others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following is a list of the noise descriptors most commonly used in traffic noise analysis:

- **Equivalent Sound Level (Leq)** – Leq represents an average of the sound energy occurring over a specified period. Leq is, in effect, the steady-state sound level that, in a stated period, would contain the same acoustical energy as the time- varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level, Leq (h), is the energy average of the A-weighted sound levels occurring during a 1-hour period.
- **Percentile-Exceeded Sound Level (Lx)** – Lx represents the sound level exceeded for a given percentage of a specified period. For example, L10 is the sound level exceeded 10 percent of the time, and L90 is the sound level exceeded 90 percent of the time.
- **Maximum Sound Level (Lmax)** – Lmax is the highest instantaneous sound level measured during a specified period.

### 2.13.2.2 Existing Noise Environment

#### *Noise-Sensitive Receptors*

The proposed project is located within a developed, urban area of the Los Angeles. Terrain in the project vicinity, except for the North Spring Street Viaduct and approaches, can be characterized as gently rising along a west to east tangent. Land uses in the vicinity of the project area consist of a mix of industrial, commercial, residential, and recreational uses. Noise sensitive land uses for this project are listed in *Table 2-38* under Activity Category B, which include: picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.

Residential uses exist in the vicinity of the proposed project near the southeast corner of the intersection of North Spring Street on Avenue 18.

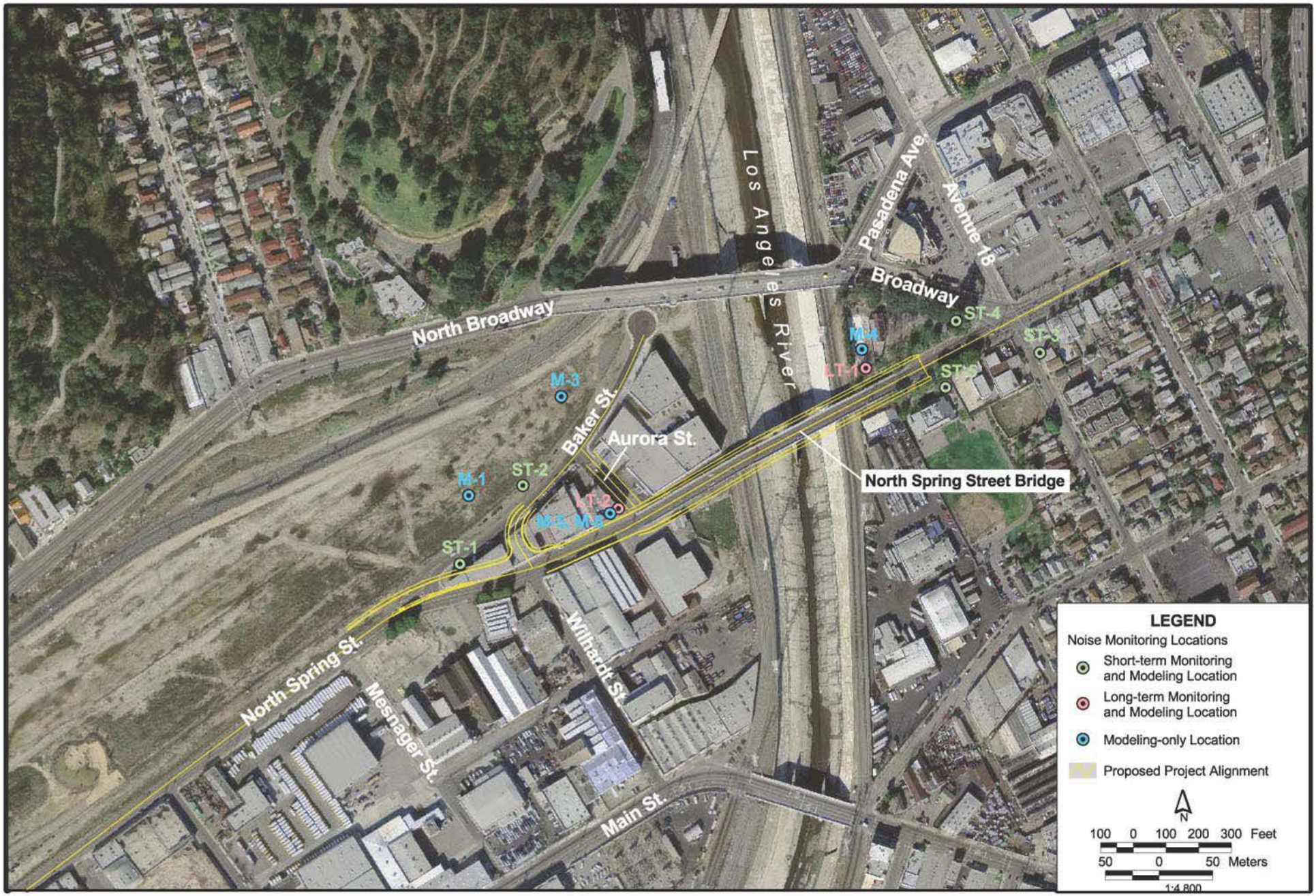
Recreational land uses identified within the study area include the LASHP, located north of Baker Street. The California DPR purchased the property for recreational development and adopted a general plan in June 2005 that provides guidelines for achieving the vision and purpose of the LASHP. The LASHP is currently used for interim public/recreational purposes, such as low impact sports, picnics, special events, concerts, filming, and community events; therefore, this property is evaluated as a recreational use for the purposes of this analysis.[66] The Downey Recreation Center, owned by the City and managed by the City's Department of Recreation and Parks, is also a recreational use.

#### *Existing Noise Levels*

Ambient noise levels were measured from March 31 through April 1, 2005 at representative noise-sensitive land uses adjacent to the project alignment as shown in *Figure 2-36*. Noise-sensitive land uses include, for the purposes of this study, parks (both existing and planned) and structures used for residential purposes. The noise measurement methodology was consistent with the guidelines in the TeNS, August 2006. Short-term (15-minutes in duration) noise measurements were conducted at five sites. The short-term noise measurement data are presented in *Table 2-41*.

The measured short-term ambient noise levels in the project area ranged from 56.9 dBA $L_{eq}$ at ST-2a to 68.3 dBA $L_{eq}$ at ST-4b.

[66] Personal communication with Mr. Sean Woods, Superintendent, Los Angeles State Historic Park, December 19, 2007.




ENGINEERING

NOISE MEASUREMENT LOCATIONS

NORTH SPRING STREET VIADUCT WIDENING AND REHABILITATION PROJECT

FIGURE 2-36

## Table 2-41 Short-Term Noise Measurement Data

| Measurement ID | Measurement Location | Noise Sources | Measurement Results, dBA | | |
|---|---|---|---|---|---|
| | | | Leq | Lmax | Lx |
| ST-1 | North side of building at North Spring and Baker Streets. ~35' from Baker Street, and ~40 feet from west end of building. | North Spring and Baker Streets traffic, deliveries at nearby businesses, small barking dog, prop. plane overhead, circling helicopter, trains & light-rail transit (LRT) | 62.2 | 74.8 | 48.8 |
| ST-2a | Adjacent to planned Cornfield Park, at Baker Street. ~100 feet from 1709 N. Spring St. and ~ 25' from north edge of Baker Street. | North Spring and Baker Streets traffic, birds, saw at 1733 North Spring Street, train horns, LRT, garbage rustling | 56.9 | 69.8 | 48.4 |
| ST-2b | | North Spring and Baker Streets traffic, birds, train horns, LRT | 57.2 | 71.6 | 50.7 |
| ST-3a | 208 Avenue 18. ~30 feet from edge to Avenue 18, and ~94 feet from edge of North Spring Street. | North Spring Street, North Broadway, and Avenue 18 traffic, distant aircraft, distant trains | 66.1 | 80.3 | 54.3 |
| ST-3b | | | 64.5 | 78.3 | 53.5 |
| ST-4a | Downey Recreation Center north side, near driveway. ~35' from center of South Avenue18, and ~80' from edge of Avenue 18. | North Spring Street, North Broadway, and Avenue 18 traffic | 68.0 | 80.6 | 55.0 |
| ST-4b | | | 68.3 | 83.9 | 56.1 |
| ST-5a | Downey Recreation Center south side, at sand lot / playground (depressed 12 to 15 feet below North Spring Street). | North Spring Street traffic, small children playing, trains to west, basketball bouncing, birds | 57.7 | 71.1 | 45.8 |
| ST-5b | | | 57.0 | 67.8 | 48.0 |

Source: North Spring Street Viaduct Widening & Rehabilitation Project – Noise Study Report, Grant Linberg. January 2008

Two long-term (i.e., 24-hours or more in duration) noise measurements were also conducted, and utilized to calculate the existing peak-noise-hour noise levels for the short-term measurement sites. As shown in *Table 2-42*, at both of the long-term noise measurement locations (i.e., LT-1 and LT-2), peak noise levels occurred in the morning hours and again in the late afternoon/early evening hours.

## Table 2-42 Long-Term Noise Measurement Data

| Site Number | Location | Peak-Noise-Hour $L_{eq}$ (dBA) & Time | Quietest-Hour $L_{eq}$ (dBA) & Time | 24-Hour Avg. $L_{eq}$ (dBA) |
|---|---|---|---|---|
| LT-1 | North Side of Downey Recreation Center, near pool area | 64<br>10:00 | 54<br>22:00 | 60 |
| LT-2 | NW corner of North Spring & Aurora Streets | 73<br>8:00 | 61<br>2:00 | 70 |

Source: North Spring Street Viaduct Widening & Rehabilitation Project – Noise Study Report, October 2008

### 2.13.3 Environmental Consequences

#### 2.13.3.1 No Build Alternative

There would be no permanent or construction impacts associated with noise under the No Build Alternative

#### 2.13.3.2 Build Alternatives 1, 2, and 3

Noise modeling of project operations at twelve representative noise sensitive receptors (*Figure 2-36*) is described in the project's Noise Study Report[67]. Estimated existing and future peak noise hours were calculated for each of the measured and modeled receptors. The predicted future noise levels were compared with the existing levels to determine the amount of noise increase resulting from operation of the proposed project. *Table 2-43* presents the data in terms of peak noise hour Leq (i.e., Caltrans/FHWA NAC).

As shown in *Table 2-43*, noise levels under Build Alternatives 2 and 3 are generally predicted to increase several dB compared to existing levels, as a result of the combination of increased traffic volumes over time and the widening of the viaduct resulting in the relocation of the noise source slightly closer to the respective receiver. At locations ST-1 and M-1, traffic noise increases would be greater (i.e., 5 to 6 dB) under Alternative 2 because of the planned demolition of the structure at North Spring and Baker Streets, which currently functions as a barrier to traffic noise emanating from North Spring Street. Under Alternatives 2 and 3, at location LT-1 the noise levels are predicted to decrease by approximately 2 dB because of increased acoustical shielding provided by the widened viaduct deck.

As shown in *Table 2-43*, five of the 12 representative modeled receivers would exceed Caltrans/FHWA NAC for Activity Category B land uses unless abatement measures are implemented.

Exterior noise levels at receptors ST-1, M-5, M-6, ST-4, and ST-3 are predicted to range from 66 to 74 dBA Leq during the peak-noise-hour, thus exceeding the threshold for frequent human outdoor uses. The existing ambient noise levels at these locations range from 62 to 68 dBA Leq. At receivers ST-1, M-5, M-6, and ST-3, there are no areas of frequent outdoor human use (i.e., patios, balconies with signs of frequent use, side or rear yards) where lowered noise levels would be a benefit); thus, no noise abatement measures are considered necessary for the exterior areas at these locations.

[67] North Spring Street Viaduct Widening & Rehabilitation Project – Noise Study Report, Grant Linberg. January 2008

## Table 2-43 Predicted Exterior Noise Levels Under Build Alternatives 2 and 3

| No. | Receptor Location | Existing Ambient Level (based upon Noise Measurements) (dBA $L_{eq}$) | Modeled[1] Existing Ambient Peak-Noise-Hour (dBA $L_{eq}$) | Modeled[1] Future without Project Peak-Hour Noise Level (dBA $L_{eq}$) | Modeled[1] Future with Project Peak-Hour Noise Level (dBA $L_{eq}$) | Estimated Increase Over Existing Noise Level (dBA) | Criterion Noise Level[2] (dBA $L_{eq}$) | Future with Project Noise Level Equals or Exceeds Criterion Noise Level? |
|---|---|---|---|---|---|---|---|---|
| ST-1 | North side of building at North Spring and Baker Streets, approximately 35 feet from center of Baker, and approximately 40 feet from west end of building | 62 | 62 | 63 | 67 | 5 | 66 | Yes |
| M-1 | Cornfield Park, approximately 130 feet northwesterly of Baker Street centerline | n/a | 53 | 54 | 59 | 6 | 66 | *No* |
| ST-2 | Gravel shoulder north side of Baker Street across from 1709 North Spring Street | 57 | 60 | 61 | 63 | 3 | 66 | *No* |
| M-3 | Cornfield Park, approximately 125 feet northwesterly of Baker Street centerline | n/a | 52 | 53 | 55 | 3 | 66 | *No* |
| LT-2 | NW corner of North Spring Street and Aurora Street | 70 | 70 | 71 | 73 | 3 | n/a | *No* |
| M-5 | Building Façade at North Spring Street and Aurora Street, second-floor | n/a | 71 | 72 | 74 | 3 | 66 | Yes |
| M-6 | Building Façade at North Spring Street and Aurora Street, third-floor | n/a | 71 | 73 | 74 | 3 | 66 | Yes |
| LT-1 | North Side of Downey Recreation Center, near pool area | 60 | 64 | 65 | 62 | -2 | 66 | *No* |
| M-4 | North Side of Downey Recreation Center, within pool area | n/a | 62 | 64 | 63 | 1 | 66 | *No* |
| ST-4 | North side of Downey Recreation Center, near North Spring Street | 68 | 68 | 70 | 71 | 3 | 66 | Yes |
| ST-5 | Sand lot / playground at S side of Downey Recreation Center (depressed 12 to 15 feet below North Spring Street) | 58 | 63 | 64 | 63 | 0 | 66 | *No* |
| ST-3 | In front of residence at 208 Avenue 18 | 66 | 65 | 67 | 66 | 1 | 66 | Yes |

Source: North Spring Street Viaduct Widening & Rehabilitation Project – Noise Study Report, Grant Linberg. January 2008

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In the absence of interior noise level calculations or field measurements, guidelines in section 772.11 of the FHWA's *Highway Traffic Noise Analysis and Abatement Policy and Guidance* (FHWA, 1995) were used to determine interior noise level predictions for the receptors. According to the guidelines, noise level predictions are computed by subtracting noise reduction factors from the predicted exterior levels. The noise reduction factors vary by the type of building and the condition of the windows (see *Table 2-44*).

The building in question is a masonry (brick) building constructed in the early 1800s, with windows that appear to be single-glazed. The frames exhibit significant warping and longitudinal cracking. The Noise Study Report assumes the worst-case scenario for the proposed project. Noise levels were modeled at the facade of the building in question (and are predicted to range from 66 to 74 dBA Leq during the peak-noise-hour), then 25 dBA was subtracted to determine the interior noise level. Therefore, the interior noise levels at ST-1, M-5, M-6, and ST-3 would range from 41 to 49 dBA Leq, which is below the 52 dBA interior NAC Leq (Activity Category E).

**Table 2-44 Building Noise Reduction Factors**

| Building Type | Window Condition | Structure |
|---|---|---|
| All | Open | 10 dB |
| Light Frame | Ordinary Sash (closed) | 20 dB |
| | Storm Windows | 25 dB |
| Masonry | Single Glazed | 25 dB |
| | Double Glazed | 35 dB |

Source: FHWA's Highway Traffic Noise Analysis and Abatement Policy and Guidance (FHWA, 1995)

At receptor ST-4, which is representative of the northeasterly portion of the Downey Recreation Center, the future noise level under Build Alternatives 2 and 3 is predicted to be 71 dBA Leq, an increase of approximately 3 dBA from existing conditions; however, under Build Alternative 2 with Design option A, this increase would not occur because the north-side widening would not be included under this option. Based upon these predictions, none of the 12 modeled receivers would experience a substantial (i.e., 12 dBA or greater) noise increase under future with project conditions.

### 2.13.4 Construction Impacts

Implementation of the proposed project would result in construction related noise impacts during various phases of construction. However, due to the linear nature of the project and the temporary nature of construction activities, no single location would experience a long-term period of construction noise.

### 2.13.4.1 No Build Alternative

The No-Build Alternative would not provide any construction impacts regarding construction noise impacts.

### 2.13.4.2 Build Alternative 1

Implementation of the proposed project would result in construction related noise impacts during various phases of construction. However, due to the linear nature of the project and the temporary nature of construction activities, no single location would experience a long-term period of construction noise. Noise produced by construction equipment required to construct the project would occur with varying intensity and duration during the various phases of construction.

**Table 2-45**

**Noise Level Ranges of Typical Construction Equipment**

| Equipment | Levels in dBA at 50-ft |
|---|---|
| Front Loader | 73 – 86 |
| Trucks | 82 – 95 |
| Cranes (moveable) | 75 – 88 |
| Cranes (derrick) | 86 – 89 |
| Vibrator | 68 – 82 |
| Saws | 72 – 82 |
| Pneumatic Impact Equipment | 83 – 88 |
| Jackhammer | 81 – 98 |
| Pumps | 68 – 72 |
| Generators | 71 – 83 |
| Compressors | 75 – 87 |
| Concrete Mixers | 75 – 88 |
| Concrete Pumps | 81 – 85 |
| Back Hoe | 73 – 95 |
| Pile Driving | 95 – 107 |
| Tractor | 77 – 98 |
| Scraper/Grader | 80 – 93 |
| Paver | 85 – 88 |

Source: North Spring Street Viaduct Widening & Rehabilitation Project – Noise Study Report. URS Corporation. March 2006

### 2.13.4.3 Build Alternatives 2 and 3

Construction of the proposed project is anticipated to occur over an approximately 4.5-year period. Noise produced by construction equipment required to construct the project

would occur with varying intensity and duration during the various phases of construction. The most noise-intensive activities would include those associated with demolition of the viaduct and flat-iron style building. Because of the linear nature of the project and the different phases of construction, no single location (with the exception of laydown and staging areas) would experience a long-term period of construction noise.

*Table 2-45* above presents typical construction noise levels for various pieces of construction equipment at a distance of 15 meters. Noise levels generated by construction equipment (or by any "point source") decrease at a rate of approximately 6 dBA per doubling of distance away from the source (Diehl, 1973). Therefore, at a distance of approximately 100 feet, the noise levels would be about 6 dBA lower than at the 50-foot reference distance. Similarly, at a distance of 200 feet the noise levels would be approximately 12 dBA lower than at the 50-foot reference distance.

Additional noise reduction could be realized through shielding provided either by natural terrain or by placement of temporary barriers or excess soil generated through construction between the noise source(s) and receiving areas. Because the project would not result in additional traffic capacity, not operation noise impacts would occur. Because of the temporary nature of noise impacts, with implementation of minimization measures project contributions to cumulative impacts are considered less than cumulatively considerable.

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

### 2.13.5.1 Noise Abatement

Abatement in the form of screen walls (soundwalls) was considered at representative noise-sensitive locations where the predicted noise levels under Build Alternative 2 and 3 approach or exceed Caltrans/FHWA NAC. For this project, receptor ST-4 is the only modeled location that represents an area of frequent outdoor human use (i.e., the northeasterly portion of the Downey Recreation Center) with post-project noise levels that approach or exceed the NAC. Construction of a soundwall parallel to the westbound side of North Spring Street at the recreation center's right-of-way line was considered for this area, but preliminarily ruled out. The construction of an effective soundwall in this location could not be accomplished because of the necessity for a driveway break for access to the Downey Recreation Center.

### 2.13.5.2 Construction Noise Minimization Measures

Noise impacts are expected to occur during the construction period. The City's noise ordinance and standard specifications for public works construction identify several

measures designed to minimize noise impacts. The following standard measures would be implemented to minimize construction related impacts:

- Hold community meetings to explain to area residents about the construction work, time involved, and the control measures to be taken to reduce the impact of the construction work
- Limit noisy construction activities to 7:00 am to 7:00 pm by scheduling the timing and duration of construction activities to minimize noise impacts at noise sensitive locations.
- As practicable, use noise-attenuating "jackets" or portable noise screens to provide shielding for pavement breaking, jack hammering or other similar type activities when work is close to noise sensitive areas.

With implementation of the above measures, the project would not be expected to result in adverse noise impacts; therefore, no mitigation is required.

## 2.14 Biological Resources

A biological resources assessment was conducted to determine potential impacts to biological resources within the project area. The assessment included reconnaissance-level field surveys for habitats, vegetation, and special status species conducted in June 2005 for the Biological Study Area (BSA). The BSA boundary is similar to the APE designated area completed for the historical and archaeological studies (see *Figure 2-28*). The term "special-status species" refers to the following:

- Plants and animals that are legally protected or proposed for protection under the Federal Endangered Species Act (FESA) or the California Endangered Species Act (CESA);
- Plants and animals defined as endangered or rare under the California Fish and Game Code;
- Animals designated as species of special concern by the U.S. Fish and Wildlife Service (USFWS) or the CDFG;
- Animals listed as "fully protected" in the California Fish and Game Code (Sections 3511, 4700, 5050, and 5515)

Also considered in the assessment for background purposes are:

- Plant species listed in the California Native Plant Society's (CNPS) *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2005).

### 2.14.1 Regulatory Setting

The following summarizes environmental laws governing biological resources relevant to the proposed project.

#### 2.14.1.1 Federal Endangered Species Act

The FESA recognized that many species of fish, wildlife, and plants were in danger of or threatened with extinction. The FESA mandates as national policy that all federal agencies should work toward conservation of these species. The Secretary of the Interior and the Secretary of Commerce were designated in the FESA as responsible for identifying endangered and threatened species and their critical habitats, carrying out programs for the conservation of these species, and rendering opinions regarding the impact of proposed federal actions on endangered species.

Biological assessments are required under Section 7(c) of the FESA if listed species or critical habitat may be present in the area affected by any major construction activity by, or subject to issuance of a permit from, a federal agency as defined in Part 404.02. Under Section 7(a)(3) of the FESA, every federal agency is required to consult with USFWS or

National Marine Fisheries Service on a proposed action if the agency determines that its proposed action may affect an endangered or threatened species.

#### 2.14.1.2 Migratory Bird Treaty Act (MBTA)

The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13.

#### 2.14.1.3 Clean Water Act

Placement of fill material in waters of the U.S is regulated through Section 404 of the CWA, under jurisdiction of the ACOE. Waters defined under Section 404 include, but are not limited to, areas subject to the ebb and flow of the tide, streams, and wetlands (33 CFR §328.23[3]). The extent of the waters in streams is defined by elevations along the stream bank above which water normally does not rise (ordinary high water mark). The proposed project would involve the placement of fill in the existing concrete-lined Los Angeles River, which is a water of the U.S. An application to obtain the Section 404 permit would be submitted to ACOE.

Wetlands are defined as areas that are saturated or inundated by surface or groundwater for a frequency and duration sufficient to support the prevalence of plants adapted for life in saturated soil conditions (33 CFR §328 [(b)b]). Based on the field survey, the portion of the concrete lined Los Angeles River impacted by the proposed project is not considered a wetland.

#### 2.14.1.4 California Endangered Species Act

The CESA (Fish and Game Code Sections 2050-2098) establishes State policies to conserve, protect, restore, and enhance any endangered or threatened species and its habitat. The Fish and Game Commission is charged with establishing a list of endangered and threatened species. State agencies must consult with CDFG to determine if a proposed project is likely to jeopardize the continued existence of any state-listed endangered or threatened species.

#### 2.14.1.5 California Fish and Game Code

The California Fish and Game Code defines “take” (Section 86) and prohibits the “taking” of a species listed as threatened or endangered (California Fish and Game Code Section 2080) or as fully protected (as defined in California Fish and Game Code Sections 3511, 4700, and 5050). Impacts on individuals of those species are viewed as

considerable if they result in the following effects: a) direct mortality; b) permanent or temporary loss of occupied habitat that would result in mortality to or reduced productivity of at least one individual of the species; and c) occupation of biologically important habitat for substantial periods resulting in mortality to or reduced productivity of at least one individual of the species.

The CDFG regulates activities that may affect streambeds. Division 2, Chapter 6, Section 1601 of the California Fish and Game Code states that "...general plans sufficient to indicate the nature of a project for construction by, or on the behalf of, any governmental agency, state or local, and any public utility, of any project which would divert, obstruct, or change the natural flow or bed, channel, or bank of any river, stream, or lake designated by the Department in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit, or would use material from the streambeds designated by the Department, shall be submitted to the Department."

CDFG has stated that their jurisdiction is any area that is within the 100-year floodplain. An application to obtain a Section 1601 Streambed Alteration Agreement for the construction of pier extensions within the Los Angeles River would be submitted to CDFG.

#### 2.14.1.6 California Code of Regulations, Title 14, Natural Resources

These regulations govern the harassment of wildlife, including acts that disrupt the normal behavior of animals, including breeding, foraging, and seeking cover. These regulations, together with the California Fish and Game Code, protect roosting bats and birds under existing bridges or in structures scheduled for demolition or remodeling.

#### 2.14.1.7 City of Los Angeles Municipal Code

The LAMC, specifically Chapter VI, Public Works and Property, Article 2, Streets and Sidewalks, Section 62.170, Conditional Permit to Remove or Destroy Trees, regulates the removal of street trees. The LAMC requires that project applicants obtain a permit for the removal of street trees.

### 2.14.2 Affected Environment

The proposed project is located in a heavily urbanized area on level terraces on either side of the Los Angeles River. The existing North Spring Street Viaduct spans the Los Angeles River channel. The channel is concrete lined and several hundred feet across and more than 50 feet (15 meters) deep. The river flows year-round, and is fed by urban runoff and treated wastewater. The river does not support any federal listed proposed, threatened, or endangered species, and it is not close to any federally designated critical

habitat. However, although no representatives have been observed during field reconnaissance activities, the viaduct over the channel may offer perch sites or nesting habitat for bats or birds.

### 2.14.2.1 Plant Species

Within the proposed project area, native habitat for plants and animals does not occur. The portion of the Los Angeles River that passes under North Spring Street, is trapezoidal, concrete-lined, and channelized segment of the river. Three habitats were found within the BSA: ruderal-disturbed (urban), landscape ornamental and aquatic (on the floor of the concrete lined Los Angeles River flood control channel). No native plant communities were present within the surveyed reach of the Los Angeles River, the railroad rights-of-way on either bank of the river, or within the surrounding residential and commercial neighborhoods.

During the reconnaissance survey ruderal-disturbed areas had very little vegetation within and around all of the urban industrial areas of the BSA. Plant species observed within this community include horseweed (*Conyza canadensis*), black mustard (*Brassica nigra*) fasciculate tarweed (*Hemizonia fasciculata*), telegraph weed (*Heterotheca grandiflora*), prickly sow thistle (*Sonchus asper*), fountain grass *(Pennisetum alopecuroides),* tree tobacco (*Nicotiana glauca*), Douglas nightshade (*Solanum douglasii*), cultivated oat (*Avena sativa*), ripgut grass (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), smilo grass (*Piptatherum miliaceum*), and annual bluegrass (*Poa annua*). These plants were found either in crevices of sidewalks, open areas between buildings, at the edges of the railroad rights-of-way, or on piles of soil at the east end of the existing viaduct.

The principal cultivated trees and shrubs included Indian laurel fig (*Ficus microcarpa*), cinnamon tree (*Cinnamonum japonicum*), Moreton Bay chestnut (*Castanospermum australe*), Mexican fan palm (*Washingtonia robusta*), and bougainvillea (*Bougainvillea spectabilis*). Other trees and shrubs included date palm (*Phoenix Dactylifera*), magnolia (*Magnolia grandiflora*), Monterey pine (*Pinus radiata*), dragon tree (*Dracaena draco*), oleander (*Nerium oleander*), and bamboo (*Bambusa multiplex*).

### 2.14.2.2 Wildlife Species

No native mammals or birds were observed within the BSA during the site survey. However, wildlife that is known to occupy the area includes the California ground squirrel (*Spermophilas beecheyi*), opossum (*Dedelphis viginiana*), raccoon (*Procyon lotor*), western fence lizard (*sceloporun occidentalis*), house sparrow (*Passer domesticus*), European starling (*Sturnus vulgaris*), and rock dove (*Columba livia*). Areas of the Los Angeles River that have concrete-lined trapezoidal channels may be occupied

by house sparrow, European starling, black phoebe (*Sayonrnis nigricans*), spotted dove (*Streptopelia chinensis*), mourning dove (*Zenaida macroura*), rock dove, spotted sandpiper (*Actitis macularia*), greater yellowlegs (*Tringa melanoleuca*), black necked stilt (*Himantopus mexicanus*), and killdeer (*Charadrius vociferus*).

### 2.14.2.3 Special-Status Species

The BSA does not support native habitats, plant communities, or special-status species. The site lacks the minimal characteristics and conditions necessary to generally support any sensitive or protected plant or animal species that may occur within the project region. *Table 2-46* lists special-status plant and animal species identified by USFWS, the California Natural Diversity Database (CNDDB), and the CNPS on-line *Inventory of Rare and Endangered Vascular Plants of California* (CNPS, 2005) as potentially occurring within the project area or vicinity.

**Table 2-46 Sensitive Species Potentially Occurring in the BSA**

| Scientific Name | Common Name | Status Federal/State | General Habitat Description | Habitat Present/Absent | Source |
|---|---|---|---|---|---|
| **PLANTS** | | | | | |
| *Aster greatae* | Greata's aster | None/CNPS 1B | Broadleaved upland forest, chaparral cismontane woodland, lower montane coniferous forest, riparian woodland. | A | CNPS 2005 |
| *Astragalus brauntonii* | Braunton's milk-vetch | FE/CNPS 1B | Closed Cone Coniferous forest, chaparral, coastal sage scrub, valley and foothill grasslands. | A | CDFG 2005a CNPS 2005 |
| *Astragalus tener var. titi* | Coastal dunes milk-vetch | FE/SE CNPS 1B | Playas, valley and foothill grassland, and vernal pools. | A | CDFG 2005a CNPS 2005 |
| *Atriplex serenana var. davidsonii* | Davidson's saltscale | None/CNPS 1B | Coastal bluff scrub. | A | CNPS 2005 |
| *Calochortus plummerae* | Plummer's Mariposa lily | None/CNPS 1B | Chaparral, coastal scrub, riparian scrub. | A | CNPS 2005 |
| *Calystegia sepium ssp. binghamiae* | Santa Barbara morning-glory | None/CNPS 1A | Swamps and marshes | A | CNPS 2005 |
| *Dudleya multicaulis* | Many-stemmed dudleya | None/CNPS 1B | Chaparral, coastal sage scrub, valley and foothill grassland. | A | CNPS 2005 |
| *Helianthus nuttallii ssp. parishii* | Los Angeles sunflower | None/CNPS 1A | Marshes and swamps. | A | CNPS 2005 |

| Scientific Name | Common Name | Status Federal/State | General Habitat Description | Habitat Present/Absent | Source |
|---|---|---|---|---|---|
| *Horkelia cuneata ssp. puberula* | Mesa horkelia | None/CNPS 1B | Chaparral, cismontane woodland, coastal scrub on sandy or gravelly substrates. | A | CNPS 2005 |
| *Linanthus orcutti* | Orcutt's linathus | None/CNPS 1B | Chaparral, lower montane coniferous forest. | A | CNPS 2005 |
| *Navarretia prostrara* | Prostrate navarretia | None/CNPS 1B | Coastal scrub, valley and foothill grassland in vernal pools. | A | CNPS 2005 |
| *Ribes divaricatum var. parishii* | Parish's gooseberry | None/CNPS 1B | Riparian woodland | A | CNPS 2005 |
| *Symphyotrichum defoliatum* | San Bernardino aster | None/CNPS 1B | Marshes and swamps, Coastal scrub, Cismontane woodland, lower montane coniferous forest, valley and foothill grassland. | A | CNPS 2005 |
| **REPTILES** | | | | | |
| *Phrynosoma coronatum (blainvillei)* | Coast (San Diego) horned lizard | None/CSC | Grasslands, chaparral, coastal sage scrub, and broad leaf woodlands in arid and semi arid conditions. | A | CDFG 2005a |
| **BIRDS** | | | | | |
| *Athene cunicularia* | Burrowing owl | None/CSC | Open dry annual or perennial grasslands, deserts, and scrublands with low growing vegetation. | A | CDFG 2005a |
| *Empidonax traillii extimus* | Southwestern willow flycatcher | FE/SE | Breeds in dense riparian habitats, along rivers, stream. Or other wetlands. The vegetation can be dominated by dense growths of willows. | A | CDFG 2005a |
| *Polioptila californica californica* | California gnatcatcher | FT/CSC | Found in the coastal sage scrub plant community. This type of community is characterized by low shrubs and an absence of trees. | A | CDFG 2005a |
| **MAMMALS** | | | | | |
| *Microtus californicus stephensi* | South coast marsh vole | None/CSC | Occurs in open montane riparian habitat, dense annual grasslands, and wet meadows. | A | CDFG 2005a |
| *Nyctinomops macrotis* | Big free-tailed bat | None/CSC | Inhabits rugged, rocky habitats in arid landscapes. It has been found in a variety of plant associations, including desert shrub, woodlands, and evergreen forests. | A | CDFG 2005a |

| Scientific Name | Common Name | Status Federal/State | General Habitat Description | Habitat Present/Absent | Source |
|---|---|---|---|---|---|
| *Taxidea taxus* | American badger | None/CSC | Inhabits dry, open grasslands, fields, and pastures. | A | CDFG 2005a |

Fish and Wildlife Service (Federal)
FE: Endangered: in danger of becoming extant throughout all or a significant portion of its range.
FT: Threatened: likely to become endangered in the foreseeable future in the absence of special protection.
FC: Federal Candidate: candidate for FT or FE listing.
FSC: Species of Concern: sufficient information exists which warrants concern over that species status and warrants study.
PFE: Proposed Federally Endangered.
California Department of Fish and Game (State)
SE: Endangered: in danger of becoming extant throughout all or a significant portion of its range.
ST: State Threatened: likely to become endangered in the foreseeable future in the absence of special protection.
SC: State Candidate.
CSC: California Special Concern species: information exists which warrants concern over that species' status and may warrant future listing.
California Native Plant Society (CNPS) designations:
List 1A: Plants presumed extinct in California.
List 1B: Plants rare and endangered in California and throughout their range.
List 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
List 3: Plants about which we need more information; a review list.
List 4: Plants of limited distribution; a watch list.
Definitions of Occurrence Probability:
Occurs*:* Observed on the site during surveys described here, or recorded onsite by other qualified biologists.
High*:* Observed in similar habitat in region by qualified biologists, or often occurs in habitat similar to that on the site, and within the known range of the species.
Moderate*:* Reported sightings in surrounding region, or site are within the known range of the species and often occur in habitat similar to that on the site.
Low*:* Site is within the known range of the species but habitat on the site is rarely used by the species.
Absent*:* A focused study failed to detect the species, or, no suitable habitat is present, or the site is well outside known geographic or elevational ranges.
CDFG, 2005; CNPS 2005

## 2.14.3 Environmental Consequences

### 2.14.3.1 No Build Alternative

No permanent biological impacts would occur under this alternative, and no mitigation would be required.

### 2.14.3.2 Build Alternative 1

No permanent biological impacts would occur under this alternative, and no mitigation would be required. Based on the data compiled, there is a very low potential that the project area supports or could support an endangered, threatened, or special-status species. No special-status plant or animal species were observed within the BSA. No impacts to special-status species are anticipated.

### 2.14.3.3 Build Alternative 2 and 3

Based on the data compiled, there is a very low potential that the project area supports or could support an endangered, threatened, or special-status species. No special-status plant or animal species were observed within the BSA. No impacts to special-status species are anticipated. The proposed project would require the removal of street trees on both

sides of North Spring Street at the east end of the project area. New street trees would be installed to replace the trees removed at a ratio of 2:1 (two new trees planted for every street tree removed). Therefore, no permanent impacts to vegetation would occur.

### 2.14.4 Construction Impacts

#### 2.14.4.1 No Build Alternative

No temporary biological impacts would occur under this alternative, and no mitigation would be required.

#### 2.14.4.2 Build Alternatives 1, 2, and 3

No special-status animals were detected within the BSA. Wildlife observed using the North Spring Street Viaduct includes cliff swallow and rock dove. No roosting bat or hibernation roosts were apparent underneath the North Spring Street Viaduct and nearby areas. Preconstruction surveys would be conducted for nesting cliff swallows and roosting bats if this build alternative is selected. If swallows or bats are found, steps would be taken to remove existing nests and prevent the establishment of new nests prior to the beginning of the nesting season. The CDFG biologist would be consulted on how to relocate bats to avoid any construction impacts.

### 2.14.5 Cumulative Impacts

Improvements to bridges throughout the City include measures to protect nesting cliff swallows and roosting bats during construction. These measures, which would also be followed by the proposed project, would avoid temporary biological impacts. Since the bridge would be maintained after construction, the proposed project would not result in any permanent biological impacts. The project's measures to replace displaced trees at a 2:1 ratio would conform with the City's plans to plant one million trees in the City, with special attention to areas along the Los Angeles River, and would have a beneficial cumulative biological impact. Based on the data compiled, there is a very low potential that the project area supports or could support an endangered, threatened, or special-status species. Therefore, no adverse cumulative impacts would occur.

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

The following measures and standard specifications would be implemented to minimize impacts to biological resources:

- Replace all street trees to be removed at a 2:1 ratio. Types of trees and planting locations would be reviewed and approved by the City of Los Angeles Urban Forestry Division.
- Conduct a preconstruction survey for nesting cliff swallows and roosting bats. If the birds are found, employ methods to prevent the establishment of nest prior to the commencement of construction activities. If swallows or bats are found, the CDFG biologist would be consulted on how to relocate them to avoid any construction impacts.

With implementation of these standard specifications and minimization measures, no adverse impacts to biological resources are expected to occur, and no mitigation is required.

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# Chapter 3. California Environmental Quality Act Evaluation

This chapter analyzes environmental impacts of the proposed project alternatives pursuant to California Environmental Quality Act (CEQA). The analysis is conducted following the City of Los Angeles (City) Environmental Quality Act Guidelines (Adopted July 31, 2002 – CF#: 02-1507), which incorporate all of the State CEQA Guidelines contained in Title 15, California Code of Regulations (CCR), sections 15000 *et seq*. Appendix G of the State CEQA Guidelines was used in determining significant impacts to environmental resources under CEQA. Objectives of the project are defined in Section 1.2.1 under proposed project purpose.

## 3.1 Determining Significance under CEQA

The proposed project is subject to federal and state environmental review requirements because the City proposes the use of federal funds and/or the project requires a federal approval action. Project documentation, therefore, has been prepared in compliance with both the CEQA and the National Environmental Policy Act (NEPA). The City is the project proponent and the lead agency under CEQA. The Federal Highway Administration's (FHWA) responsibility for environmental review, consultation, and any other action required in accordance with NEPA and other applicable federal laws for this project is being, or has been, carried out by the California Department of Transportation (Caltrans) under its assumption of responsibility pursuant to 23 U.S.C. 327.

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 some lower level of documentation, will be required. An EIS is required under NEPA when the proposed federal action (proposed project) "as a whole" has the potential to "significantly affect the quality of the human environment." The NEPA 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 environmental documents.

Under CEQA, however, the lead agency is required to identify each "significant effect on the environment" resulting from the proposed project, and ways to mitigate each significant effect. If the proposed project has the potential for a significant effect, generally defined as an adverse change in the physical characteristics of 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, CEQA Guidelines list a number of changes to the human environment that automatically require mandatory findings of significance, which also mandates the preparation of an EIR. There are no types of actions under NEPA that parallel the findings of mandatory significance of CEQA.

## 3.2 CEQA Environmental Checklist

Initial screening of potential project impacts was completed through completion of the CEQA Environmental Checklist Form[1] that was in effect at the time of the Notice of Preparation (NOP) for this EIR (see Appendix A, CEQA Checklist). Following additional analysis, significance determinations included in this chapter were made using qualitative, quantitative, and case-by-case criteria. Unless otherwise stated, the analysis in this document assumes that the project would be designed, constructed, and operated following all applicable laws, regulations, ordinances, and formally adopted City standards (e.g., Los Angeles Municipal Code (LAMC) and Bureau of Engineering Standard Plans).

Also, the analysis in this document assumes that construction would follow the uniform practices established by the Southern California Chapter of the American Public Works Association (e.g., Standard Specifications for Public Works Construction and the Work Area Traffic Control Handbook, 1997), as specifically adapted by the City of Los Angeles Department of Public Works Additions and Amendments to the Standard Specifications for Public works construction (aka "The Brown Book," formally Standard Plan S-610).

The CEQA Environmental Checklist identifies physical, biological, social, and economic factors that might be affected by the proposed project. The CEQA impact levels include potentially significant impact, less-than-significant impact with mitigation, less-than-significant impact, and no impact. Please refer to the following for detailed discussion regarding impacts:

[1] Appendix G, CEQA Guidelines

- Guidance: Title 14, Chapter 3, California Code of Regulations, Sections 15000 et seq. (http://www.ceres.ca.gov/topic/env_law/ceqa/guidelines/)
- Statutes: Division 13, California Public Resource Code, Sections 21000-21178.1 (http://www.ceres.ca.gov/topic/env_law/ceqa/stat/)

CEQA requires that environmental documents determine significant or potentially significant impacts. In many cases, background studies performed in connection with the project indicate no impacts. A "no impact" reflects this determination. Any needed discussion is included in Section 3.3 below.

## 3.3 Discussion of Significance of Impacts Under CEQA

### 3.3.1 Less-than-Significant Effects of the Proposed Project

Please refer to *Table 2-1* for a list of environmental factors excluded from further discussion and the rationale that explains why they would not be significantly impacted as the result of the proposed project.

### 3.3.2 Significant Environmental Effects of the Proposed Project

The following is a discussion of significant impacts from the CEQA Checklist (see Appendix A) that have the potential to result from implementation of the proposed project. Project impacts would be reduced to the extent feasible through measures built into the project and would be further reduced by mitigation measures described below. For a complete discussion of environmental impacts, please refer to the appropriate environmental resource section in Chapter 2.

#### 3.3.2.1 Unavoidable Impacts

Impacts described below cannot be reduced to less-than-significant levels for the reasons discussed. Refer to Chapter 2.0 for a detailed discussion of these impacts and mitigation measures.

#### *Cultural Resources*

*a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

Significant Impacts for Build Alternative 2

Build Alternative 2 would have a direct significant and adverse effect on the North Spring Street Viaduct because it would cause physical destruction of a part of the historic property and would alter the historic property in a manner that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 Code of Federal Regulations (CFR) part 68), the most applicable treatment of which would be the

Standards for Rehabilitation. This build alternative would thus greatly diminish the historic property's historic integrity and its ability to convey its significance.

The North Spring Street Viaduct is listed as a Los Angeles Historic-Cultural Monument (HCM) No. 900 and therefore is a historical resource for the purposes of CEQA. Build Alternative 2 would also cause a substantial adverse change on the significance of the resource for the same reasons stated above. This alternative would include physical demolition and alteration of the resource and its immediate surroundings such that the significance of the property would not be materially impaired. Also, the proposed replication of the dual-sided widening is not consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties. Therefore, the viaduct would no longer be eligible for its currently listed status as a Los Angeles HCM.

Significant Impacts for Build Alternative 3

The impacts to the North Spring Street Viaduct under Build Alternative 3 would be the same as those discussed under Build Alternative 2. In addition, this alternative would require demolition of the Raphael Junction Block Building, located at 1635 North Spring Street, which was designated as a Los Angeles HCM (No. 872) in May 2007, and is considered a historical resource for the purposes of CEQA. The demolition of this building would cause a significant and adverse change in the significance of the historical resource. Because the property would be demolished, it would make the property no longer eligible for its currently listed status as a Los Angeles HCM.

Mitigation Measures for Build Alternatives 2 and 3

The following mitigation measures are recommended as part of the proposed project; however, impacts to the historic viaduct would remain significant and adverse after mitigation. Under Alternative 3, impacts to the Raphael Junction Block Building would remain significant and adverse.

**MM HIS-1**: Prior to any viaduct construction activities, the City should contact the National Park Service (NPS) Historic American Buildings Survey/Historic American Engineering Record (HABS/HAER) program to determine if additional recordation is required for the North Spring Street Viaduct beyond that provided in 1996. Unless otherwise agreed to by the NPS HABS/HAER, the City should ensure that all documentation is completed and accepted by HABS/HAER before the viaduct is altered. All documentation should be prepared to the satisfaction of the State Historic Preservation Officer (SHPO) to reduce potential effects of the proposed project. All documentation should be prepared by professionals meeting the Secretary of the

Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to 36 CFR Part 61, Appendix A.

**MM HIS-2**: The City should review the proposed seismic strategy plans to ensure that the plan complies with the Secretary of the Interior's Standards for Rehabilitation prior to commencement of any seismic related construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the standards. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to 36 CFR Part 61, Appendix A.

**MM HIS-3**: The City should retain, clean, and restore the existing bronze dedication plaques that are located on the North Spring Street Viaduct. These plaques should remain on the viaduct; however if the viaduct is widened, then the dedication plaques should be relocated to an appropriate location on the widened section of the viaduct.

**MM HIS-4:** The City should prepare a website, or adapt its current website, to make the information from the HABS/HAER report available to the public for at least five years. The information should also be made available to the Caltrans Transportation Library in Sacramento for inclusion on their website.

**MM HIS-5:** The City should install informative permanent metal plaques at both ends of the viaduct at public locations that provide a brief history of the viaduct, its engineering features and characteristics, the reasons for its alteration, and a statement of the characteristics of the replacement features. The SHPO would have 30 days to review proposed plaque information before they are produced and installed.

**MM HIS-6**: To the extent feasible, the City should make a reasonable effort to retain and reuse architectural features that would be removed from the viaduct as part of the widening project. This includes concrete railings, electroliers, and concrete brackets, as appropriate. To the extent feasible, concrete railings and electroliers should be reused on the widened structure or incorporated into a new design for the widened portion of the viaduct. If the architectural features cannot be reasonably re-used on the viaduct, then those features should be replicated in kind and the original features shall be utilized in other design elements of the overall project as landscaping and hardscaping features such as along the pedestrian undercrossing on the east side of the viaduct and along the viaduct embankments near the Downey Recreational Center. Sections of salvaged brackets, if removed for the widening, should be considered as a potential element for on-site or off-site interpretive displays on the viaduct.

**MM HIS-7**: The City should make a reasonable effort to coordinate with manager of the local park facilities adjacent to the viaduct and identify an appropriate location for an interpretive display or kiosk within the immediate vicinity of the viaduct. The interpretive display should include information on the Los Angeles River Monument bridges' history and significance, as well as information on the design process of the widened viaduct, including information on the design and construction process and the public outreach efforts. The interpretive display or kiosk may include salvaged architectural elements not re-utilized on the viaduct widening project or special lighting to highlight the historic viaduct. All interpretive material should be prepared in consultation with the Los Angeles Conservancy and the City of Los Angeles Cultural Heritage Commission (CHC) and be made available for review and approval by Caltrans and the SHPO prior to fabrication and installation.

**MM HIS-8**: The City should install Los Angeles HCM plaques on both sides of the viaduct.

**MM HIS-9**: The City should work with a qualified professional meeting the Secretary of the Interior's Professional Qualifications Standards in Architectural History or Historic Architect to design the reduced single sided widened structure to the south of the existing viaduct in a manner that is compatible with the historic viaduct but distinguishable from the existing design or materials in conformance with the Secretary of the Interior's Standards for Rehabilitation. The final proposed designs should be submitted to Caltrans and the SHPO for comment prior to commencement of construction activities. The City should prepare a mitigation monitoring plan to include periodic monitoring of the construction activities to include mitigation monitoring reports with photographs indicating that the activities are compliant with the Standards for Rehabilitation. The monitor should meet the Secretary of the Interior's Professional Qualifications Standards for Architectural Historian or Historic Architect pursuant to 36 CFR Part 61, Appendix A.

**MM HIS-10 (Alternative 3 Only):** The City should consult with Caltrans to undertake documentation of the Los Angeles HCM No. 872, Raphael Junction Block Building, in accordance with HABS/HAER standards prior to demolition of the structure. The level of documentation, format, and number of views would be the discretion of Caltrans and the SHPO.

### *Mandatory Findings of Significance*

*a) Does the project have the potential to 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, 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?*

Significant Impacts for Build Alternatives 2 and 3

Build Alternatives 2 and 3 would have the potential to eliminate an example of an important period of California history by demolition and removal of various character-defining components of the North Spring Street Viaduct, which has been designated a Los Angeles HCM by the City, and determined eligible for listing in the National Register of Historic Places (NRHP). Build Alternative 3 would also require demolition of the Los Angeles HCM No. 872, which is considered a historical resource for the purposes of CEQA.

Mitigation Measures for Build Alternatives 2 and 3

Mitigation measures for this impact are discussed above under Cultural Resources. As discussed above, under Build Alternative 2 and 3, impacts to the historic viaduct would remain significant and adverse after mitigation. Under Alternative 3, impacts to the Raphael Junction Block Building, would remain significant and adverse.

#### 3.3.2.2 Impacts Mitigated to Less-Than-Significant Levels

The following summarizes potentially significant impacts that would be reduced to less-than-significant levels with implementation of recommended mitigation measures.

### *Cultural Resources*

*a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?*

Significant Impacts for Build Alternative 1

There are some components of Build Alternative 1 that have the potential to affect some aspects of structure's historic integrity, such as the introduction of fiber wrapped columns and steel pipe extenders at the pier walls and the addition of new spandrel walls at the interior arch rings; however, with implementation of the identified mitigation measures, this alternative would not cause physical destruction of the historic property, or a portion of the historic property, and the alterations to the structure necessary for the seismic retrofit would be generally consistent with the Secretary's Standards for the Treatment of

Historic Properties (36 CFR part 68), the most applicable treatment of which would be the Standards for Rehabilitation.

Mitigation Measures for Build Alternative 1

Mitigation measures MM1 through MM3 listed above are recommended for Build Alternative 1. Implementation of these mitigation measures would reduce the impacts to a less-than-significant level**.** Refer to Section 2.7 of the revised Final EIR/Environmental Assessment (FEIR/EA) for a detailed discussion of impacts and mitigation measures.

Significant Impacts for Build Alternative 2 with Design Option A

Impacts under Build Alternative 2 with Design Option A would be similar to those of Build Alternative 2; however, the intent of the south sided widening is to minimize physical impacts to the existing viaduct, while introducing a new, light weight, structure that minimally impacts the view of the historic viaduct from the south, while preserving the entire viaduct from the north. Therefore, although from a regulatory perspective, Design Option A would cause physical damage to the North Spring Street Viaduct, it would still preserve the scale, location, setting, design, materials, workmanship, feeling and association of the historic viaduct.

Additionally, a new reduced addition to the south side of the viaduct would be constructed in a manner that would have the least physical impact on the viaduct and it would not materially impair in an adverse manner the characteristics of the historical resource that justify its eligibility as a Los Angeles HCM. The majority of design features and historic fabric would be preserved (the entire north side, the entire substructure, arches, spandrel columns, Beaux-Arts Design, etc.). Additionally, the proposed reduced single-sided addition would meet the Secretary of the Interior's Standards for Rehabilitation if it is designed in a manner that is compatible, yet distinguishable, and not an exact replica of the existing historic viaduct.

Although this option would cause a regulatory adverse effect on the viaduct due to the loss of some historic fabric, the overall impacts to the viaduct could be reduced to a less-than-significant level if 1) the proposed addition is designed in a manner that is compatible with the historic viaduct but distinguishable from the Beaux-Arts design in compliance with the Secretary of the Interior's Standards for Rehabilitation, 2) the construction activities are monitored for compliance with the standards, and 3) additional mitigation measures are employed as outlined below.

Mitigation Measure for Build Alternatives 2 with Design Option A

The same mitigation measures included for Build Alternatives 1, 2, and 3 above are recommended for Alternative 2 with Design option A. Implementation of these

mitigation measures would reduce the impacts to a less-than-significant level**.** Refer to Section 2.7 of the revised FEIR/EA for a detailed discussion of impacts and mitigation measures.

### *Visual/Aesthetics*

*c) Substantially degrade the existing visual character or quality of the site and its surroundings?*

Significant Impacts for Build Alternatives 2 and 3

The project has the potential to degrade the existing historical quality and character of the site and its surroundings by replacing features of the viaduct viewable from key views, and by replacing trees and landscaping along the project route.

Mitigation Measure for Build Alternatives 2 and 3

**MM AES-1:** Existing trees and/or landscaping that are to be removed should be replaced with similar plantings and/or landscaping, as agreed upon by the City's Street Services Bureau, Street Tree Division, and in conjunction with Recreation and Park Architecture.

Implementation of this mitigation measure would reduce the impacts to a less-than-significant level. Refer to Section 2.6 of the revised FEIR/EA for a detailed discussion of impacts and mitigation measures.

### *Transportation/Traffic*

*g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?*

Significant Impacts for Build Alternatives 2 and 3

During construction, pedestrian access to the walkway on the bridge could be temporarily disrupted; this would be considered a significant and adverse impact.

Mitigation Measure for Build Alternatives 2 and 3

**MM TRA-1:** Prior to construction, the contractor should prepare a construction staging plan that would ensure that a walkway on either the north or south side of the bridge be open to pedestrians at all times.

Implementation of mitigation measure described above would reduce impacts to a less-than-significant level. Refer to Section 2.4 of the revised FEIR/EA for a detailed discussion of the impacts and the mitigation measures.

### 3.3.3 Unavoidable Significant Environmental Effects

Build Alternatives 2 and 3 would unavoidably impact a historical resource eligible for the NRHP – the North Spring Street Viaduct.

#### 3.3.3.1 Build Alternative 2

In addition to the impacts on the historic North Spring Street Viaduct referenced in Section 3.3.3 above, implementation of Build Alternative 2 would necessitate the acquisition of an industrial property located at 1701 North Spring Street. This impact would be unavoidable should this alternative be implemented.

#### 3.3.3.2 Build Alternative 3

In addition to the impacts on the historic North Spring Street Viaduct referenced in Section 3.3.3 above, implementation of Build Alternative 3 would necessitate the acquisition of two industrial properties, located at 1635 North Spring Street (Raphael Junction Block building) and 1701 North Spring Street. This impact would be unavoidable should this alternative be implemented.

### 3.3.4 Significant Irreversible Environmental Changes

Build Alternatives 2 and 3 would diminish the North Spring Street Viaduct's historic integrity and its ability to convey its significance, which would be an irreversible effect. Build Alternative 3 would demolish the Raphael Junction Block Building, a historic resource. These would be significant and irreversible environmental changes.

### 3.3.5 Growth-Inducing Impacts

The purpose of the proposed project is to eliminate existing safety and operational deficiencies associated with the North Spring Street Viaduct and its adjoining approach roadways; correction of existing structural design and integrity issues specific to the viaduct; and creation and improvement of pedestrian and bicycle linkages through the proposed project area. The proposed project is not expected to be either a direct or indirect catalyst for development or population growth in the area, and would not require new or additional infrastructure to fully meet its objectives. No off-site improvements are proposed that would potentially induce growth not otherwise anticipated.

The proposed project is not capacity-enhancing and would not increase traffic access to areas not now accessible from North Spring Street. The proposed project would improve local street circulation along the North Spring Street on the east and west side of the Los

Angeles River[2]. Thus, the project would not directly or indirectly induce growth or development, or have other secondary effects, either locally or regionally.

## 3.4 Greenhouse Gas Emissions

The State of California's Natural Resources Agency adopted CEQA Guidelines Amendments that are described in its Notice of Proposed Changes dated October 23, 2009. These amendments, which took effect March 10, 2010, added Greenhouse Gas Emissions to the CEQA Checklist. An analysis of potential effects related to this environmental factor is included below.

### 3.4.1 Regulatory Setting

While climate change has been a concern since at least 1988, as evidenced by the establishment of the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change, the efforts devoted to greenhouse gas emissions reduction and climate change research and policy have increased dramatically in recent years. In 2002, with the passage of Assembly Bill (AB) 1493, California launched an innovative and proactive approach to dealing with greenhouse gas emissions (GHG) and climate change at the state level.

AB1493 requires the Air Resources Board (ARB) to develop and implement regulations to reduce automobile and light-truck (GHG); these regulations will apply to automobiles and light trucks beginning with the 2009 model year. Greenhouse gases related to human activity include carbon dioxide, methane, nitrous oxide, tetrafluoromethane, hexafluoroethane, sulfur hexafluoride, HFC-23 (fluoroform), HFC-134a (1,1,1,2-tetrafluoroethane), and HFC-152a (difluoroethane).

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this executive order is to reduce California's GHG to: 1) 2000 levels by 2010; 2) 1990 levels by the 2020; and 3) 80 percent below the 1990 levels by 2050. In 2006, this goal was further reinforced with the passage of AB 32, the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG reduction goals, while further mandating that the ARB create a plan which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06, signed on October 17, 2006, further directs state agencies to begin implementing AB 32, including recommendations made by the state's Climate Action Team.

[2] The project action would provide more non-motorized alternatives-mode travel option to the area.

### *City of Los Angeles*

The City released its climate action plan, Green LA: An Action Plan to Lead the Nation in Fighting Global Warming, in May 2007. The plan sets forth a goal of reducing the City's greenhouse gas emissions to 35 percent below 1990 levels by the year 2030, one of the most aggressive goals of any big city in the United States (U.S.). This voluntary plan identifies over 50 action items, grouped into focus areas, to reduce emissions. While the emphasis is first on municipal facilities and operations, several measures address programs to reduce emissions in the community.

The City's Environmental Affairs Department (EAD) is leading the implementation of the plan and has established an interdepartmental working group to move the plan forward. Major milestones include the completion of a Municipal Climate Action Program to describe each action item and provide an implementation schedule; a public participation program to ensure public input to the process and actions; a tracking program to ensure progress is being made on each measure; a method to add to or modify measures in the plan; and regular public reports to the mayor and city council. The EAD is also developing a carbon dioxide ($CO^2$) emissions inventory for non-proprietary municipal facilities and operations, and plans to have this information verified and recorded with the California Climate Action Registry.

The cornerstone of the plan is the increased use of clean, renewable energy by the Los Angeles Department of Water and Power (LADWP). Many actions address City operations and facilities, while others describe services provided by the City to the community (e.g., LADWP's energy efficiency rebates and the Bureau of Sanitation's curbside recycling program). The City also attempts to influence policies not within its direct control that can aid in emissions reduction, such as through its membership on the board of Los Angeles County Metropolitan Transportation Authority (Metro).

The current focus of the plan is to reduce $CO^2$ emissions generated through the course of providing municipal services to residents of Los Angeles. Reductions in $CO^2$, when taken in aggregate with reductions by other jurisdictions and industries, will help slow the pace of global warming and reduce the impact on the environment. Whenever possible, the benefits (tons of GHG emissions reduced or avoided) of each of the City's GHG reductions actions will be calculated.

Between 1990 and 2004, the City reduced its $CO^2$ emissions by 4.5 percent, despite an approximate 12.5 percent increase in population. Two of the primary reasons for the decrease are the City's generation of cleaner electrical power (through the expansion of renewable energy sources) and the conservation of energy used in City buildings.

### 3.4.2 Affected Environment

According to a recent white paper by the Association of Environmental Professionals (AEP), "an individual project does not generate enough GHG emissions to substantially influence global climate change. Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of greenhouse gases."

### 3.4.3 Environmental Consequences

#### 3.4.3.1 Build Alternatives 2 and 3

The proposed project would have an overall beneficial impact on traffic operations in the east-west transportation corridor centered on North Spring Street, allowing this critical arterial to continue to function as a major arterial linking downtown with East Los Angeles and nearby regional freeways. The build alternatives would increase the seismic stability of the existing bridge and include various design corrections to enhance user safety. Moreover, vastly improved features would encourage the increased use of both pedestrians and bicyclists and would be consistent with the City's goals for reducing GHG emissions through increased bicycle and pedestrian travel. In addition, the proposed project would increase vehicle operational efficiency through what is presently a semi-constrained intersection of North Broadway, North Spring Street, and Avenue 18.

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

Caltrans continues to be actively involved on the Governor's Climate Action Team as the ARB works to implement AB 1493 and AB 32. As part of the Climate Action Program at Caltrans (December 2006), Caltrans is supporting efforts to reduce vehicle miles traveled by planning and implementing smart land use strategies: job/housing proximity; transit-oriented communities; and high-density housing along transit corridors. Caltrans is working closely with local jurisdictions on planning activities; however, Caltrans does not have local land-use planning authority.

Caltrans is also supporting efforts to improve the energy efficiency of the transportation sector by increasing vehicle fuel economy in new cars and light and heavy-duty trucks; however, it is important to note that control of fuel economy standards is held by the United States Environmental Protection Agency (U.S. EPA) and the ARB. Lastly, the use of alternative fuels is also being considered; Caltrans is participating in funding for alternative fuel research at the University of California Davis.

## 3.5 Mitigation Monitoring Program for CEQA Mitigation

The proposed monitoring program for CEQA mitigation (attached as Appendix E) would be enforced and monitored by the City's Department of Public Works Bureau of Engineering (BOE).

# Chapter 4. Comments and Coordination

## 4.1 Introduction

Public involvement and Native American tribal coordination were carried out throughout the project development process by means of a formal scoping meeting, community meetings, potentially affected property owner meetings, political representative meetings, and notification letters. In addition, the project information was posted on the City's Department of Public Work Bureau of Engineering (BOE) website for the general public to view. Ongoing coordination meetings with affected government agencies and utility companies were conducted to update the project status, obtain input, secure agreements, and resolve issues.

## 4.2 Scoping Process

The Council of Environmental Quality (CEQ) National Environmental Policy Act (NEPA) Regulations (40 Code of Federal Regulation (CFR) Part 1500 et seq.) and the State California Environmental Quality Act (CEQA) Guidelines (14 California Code of Regulations (CCR), Sections 15082-15083) recommend that federal, state, and local lead agencies use a public scoping process to help identify the various issues to be addressed in the environmental document. Scoping allows public agencies and the general public to learn about the proposed project and to submit suggestions regarding alternatives and the types of impacts to be evaluated.

### 4.2.1 Scoping Activities

The scoping period began on September 15, 2006, with the release of the Initial Study (IS) which was prepared to focus this Environmental Impact Report/Environmental Assessment (EIR/EA) on those environmental issues that are expected to have a significant impact on the environment and to eliminate further analysis of those issue areas which are not expected to result in significant impacts to the environment. A copy of the IS is provided in this appendix

A Notice of Preparation (NOP) of the EIR for this project was prepared and circulated, along with the IS, for a 30-day review period that began on September 15, 2006 and closed on October 16, 2006.

The IS along with the NOP were made available for public review at the Lincoln Heights and China Town Library and Councilmember Ed Reyes City Hall Office and Lincoln Heights Field Office. The IS was also available for review on the project website.

### 4.2.2 Mailings

The IS and NOP were mailed directly to the State Clearinghouse and Planning Unit in the California Governor's Office of Planning and Research, to federal, state, regional and local responsible agencies, and mailed to adjacent property owners and known interested parties. The State Clearinghouse transmitted the NOP to responsible agencies on September 15, 2006, and posted the NOP on the State of California website via the State Clearinghouse CEQANet database.

A scoping meeting notice announced the release of the NOP and where the IS could be viewed, as well as provided a brief overview of project components. The notice also served as an invitation to the scoping meeting and described its purpose in relation to the environmental review process. The notice was mailed via the United States (U.S.) Postal Service to elected officials, government agencies, residents, businesses, and community-based organizations on September 18, 2006. The notice was also posted on the project website at www.NorthSpringStreetBridgeProject.org.

The scoping meeting invitation was mailed to all residents (not owners, occupants) and businesses within a 2,000-foot radius of the project area and key stakeholders such as local community groups, environmental organizations, business organizations, local government agencies and interest groups.

### 4.2.3 Public Noticing

A newspaper advertisement announcing the scoping meeting and NOP were published on Monday, October 2, 2006 in the Los Angeles Times, a locally and nationally circulated daily publication; Los Angeles Downtown News, the local weekly publication; La Opinion, a locally-based daily publication and the nation's largest Spanish-language newspaper; and Sing-Tao, a locally based Chinese-language newspaper.

A hotline was also established to take calls from stakeholders regarding the project. The hotline number was publicized on the scoping meeting notice, fact sheet, and website. The hotline was answered by a live voice during business hours and voicemail after business hours. All calls were returned within 24 hours.

### 4.2.4 Scoping Meetings

The October 3, 2006 scoping meeting facilitated early consultation with interest parties in compliance with Section 15082 of the CEQA Guidelines. The public scoping meeting was attended by 14 stakeholders, including representatives from City Council District 1, and the Lincoln Heights Neighborhood Council. The meeting was held in two sessions, the first from 2 p.m. to 4 p.m. for public agencies and the second from 6 p.m. to 8 p.m.

for the general public. The meeting was held at the Young Nak Presbyterian Church in Lincoln Heights. This location was selected based on its accessibility and familiarity within the community. Interpreters were available to communicate with non-English-speaking members of the public in Spanish, Toy San, and Cantonese. In addition, all printed materials provided were translated into these languages.

The agenda included an open-house viewing of project displays, introduction of project team members, a project presentation, and a question–and-answer session. Project display boards illustrated the site map and various project components for attendees to view while interacting with project representatives. The meeting was staffed by representatives of the BOE, URS Corporation, Consensus Planning Group, and JRP Historical Consulting, LLC.

Meeting materials provided at the scoping meeting included meeting agendas to welcome the public and to provide an overview of the scoping meeting process and purpose, fact sheets, comment sheets, and speaker cards.

### 4.2.5 Comments Received during the Scoping Process

Two written comments were submitted by the public at the scoping meeting. An overview of the verbal questions and issues raised at the scoping meeting is included in the meeting notes attached as Appendix P.

## 4.3 Coordination Meetings

Coordination meetings with federal, state, and local agencies took place throughout the planning stage of the project. The agencies participating in the coordination meetings included:

- California Department of Transportation (Caltrans);
- Federal Highway Administration (FHWA);
- Los Angeles Department of Transportation (LADOT);
- City of Los Angeles BOE;
- Los Angeles Conservancy;
- City of Los Angeles Council District 1;
- City of Los Angeles Cultural Heritage Commission (CHC);
- City of Los Angeles Historical Society; and
- Historical Society of Southern California.

## 4.4 Local Historical Society/Historic Preservation Group And Tribal Coordination

Cultural resource records, maps, and reports pertaining to the project area prehistory and history were reviewed by a URS Corporation archeologist, in conjunction with South Central Coastal Information Center (SCCIC) on March 30, 2002, at the SCCIC of the California Historical Resources Information System (CHRIS) at California State University, Fullerton. The review included an area of 0.5-mile radius surrounding the proposed project Area of Potential Effect (APE).

In addition, the following local, state, and federal cultural resource inventories were reviewed: National Register of Historic Places (NRHP), California Points of Historical Interest (PHI), the California Historical Landmarks, the National Register of Historic Places (NRHP), the California State Historical Inventory (HRI), and the list of City of Los Angeles Historic-Cultural Monuments (HCM), and the Caltrans Statewide Bridge Inventory (Historical Significance – Local Agency Bridges, October 1, 2001). Historic maps and photographs, information from local informants, and a draft archeological technical report, entitled Los Angeles to Pasadena Metro Blue Line Project: Phase-2 Cultural Resources Investigations of the Zanja Madre, located in the Los Angeles State Historic Park (LASHP) were also reviewed.

As part of the background research, a records search of the Sacred Lands File maintained by the California Native American Heritage Commission (NAHC) was conducted on May 6, 2001. According to the NAHC, no known sacred sites were identified in the Sacred Lands Files within the immediate project area. The NAHC provided a list of 11 Native American individuals and organizations. Letters and project maps were sent by URS Corporation to these contacts on May 16, 2002.

The letters were sent to inform interested Native American individuals and organizations about the project, to inquire if they knew of any unrecorded Native American cultural resources or other areas of concern within or adjacent to the project APE, and to solicit comments, questions, or concerns with regard to the project. Letters were sent to the following contacts:

- LA City/ County Native American Indian Community;
- Ms. Angela Louise Lassos-Sanchez;
- Mr. Craig Torres;
- Mr. Jim Velasques;
- Mr. Alfred L Valenzuela;
- Island Gabrielino Group (Mr. John Jeffredo);

- Mr. John Valenzuela;
- Ti'At Society (Ms. Cindi Alvitre);
- Gabrieleno/ Tongva Tribal Council (Chairperson Anthony Morales);
- Mr. Samuel Dunlap;
- Mr. Robert Dorame; and
- Gabrieleno/Tongva Tribal Council of the Gabrieleno/Tongva Nation.

One response to the letter was received. This response was received via telephone, from Chairperson Anthony Morales of the Gabrieleno/Tongva Tribal Council. Chairperson Morales noted that although the project area is industrialized and disturbed, there could be cultural materials buried beneath the surface. As such, he recommended archaeological and Native American monitoring of ground-disturbing construction activity.

URS Corporation attempted to contact the remaining letter recipients via telephone to confirm that they did not have any comments, questions, or concerns regarding the project. Of the letter recipients contacted directly, Mr. Samuel Dunlap recommended archaeological monitoring of earth-moving construction, but did not feel that Native American monitoring was necessary. Mr. Jim Velasques had no comments, questions, or concerns regarding the project. Finally, Ms. Donna Sanchez, a representative of the Gabrieleno/Tongva Tribal Council of the Gabrieleno/Tongva Nation, also had no comments, questions, or concerns regarding the project.

## 4.5 Community And Property Owner Meetings

A series of meetings with affected property owners, elected officials, and community groups were carried out throughout project development process. At every meeting, representatives from the BOE and the project consultant team presented project information and answered questions from the attendees.

The community and property-owner meetings carried out to date consist of the following:

- Historic Cultural Neighborhood Council;
- Lincoln Heights Neighborhood Council;
- LA Bicycle Program;
- LA River Master Plan; and

Minutes of the community meetings are presented in Appendix P.

## 4.6 Public Review of Draft EIR/EA

As part of the CEQA process, a 45-day comment period, March 15, 2010 through April 28, 2010, was provided in order to allow for public review and comment on the adequacy of the Draft EIR/EA (DEIR/EA). During this 45-day comment period, the public was invited to participate in a public comment meeting hosted on April 15, 2010 and to provide oral and written comments on the DEIR/EA.

A copy of the Notice of Availability (NOA) and Public Comment Meeting Invitation is included in Appendix P. The DEIR/EA (hardcopy and electronic copy) and NOA and Public Comment Meeting Invitation were made available at the BOE, City Councilmember Ed Reyes offices and public libraries. The DEIR/EA and NOA were also posted on the BOE website at http://eng.lacity.org/techdocs/emg/north_spring_street.htm.

## 4.7 Additional Opportunities for Public Participation following Circulation of the Draft EIR/EA

Following circulation of the DEIR/EA, the Final EIR/EA (FEIR/EA) was completed and distributed to those who commented on the DEIR/EA as well as elected officials, government agencies, residents, businesses, and community-based organizations included on the distribution list. The FEIR/EA was also available on the City's website and at the BOE, City Councilmember Ed Reyes offices and public libraries

After reviewing the alternatives presented in the DEIR/EA and FEIR/EA, the City of Los Angeles City Council Transportation Committee recommended that the City perform expanded outreach to formulate additional options for consideration. In response, the City's Bridge Improvement Program (BIP) explored several alternatives and a new design option that would improve the viaduct's structural and roadway deficiencies, while taking into account its historic features.

The City also held working group meetings on June 17 and June 29, 2010 and March 10, 2011 comprised of interest groups, stakeholders, and elected officials. This coordination resulted in a new design option for Alternative 2 that has been added to this revised FEIR/EA. On May 10, 2011, The City held an additional public outreach meeting to introduce the new design option to the public. Following finalization of this revised FEIR/EA, a Transportation Committee meeting (currently scheduled for June 8, 2011) and City Council meeting (currently scheduled for June 22, 2011) will be held for final approvals and certification of the EIR.

## 4.8 Section 4(f) Public Notice

As discussed in Section 2.7, the Downey Recreation Center is protected under Section 4(f) of the US Department of Transportation Act of 1966. Use of the Downey Recreation Center, pursuant to Section 4(f), was analyzed in the Section 4(F) Evaluation prepared for the project (URS, 2010) and circulated for public review and comment with the DEIR/EA. Following circulation of the DEIR/EA, the determination of use resulting from the project was revised, and therefore additional public notice was warranted. A public notice was published on the City website, and a two week comment period was provided from May 25, 2011 through June 8, 2011, to allow the public an opportunity to review and comment on the project potential to impact the activities, features, and attributes that qualify the Downey Recreation Center for protection under Section 4(f). All comments received have been made a part of the project's administrative record.

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# Chapter 5. List of Preparers

### *California Department of Transportation*

Tami Saghafi, Environmental Coordinator, *Document Reviewer*
Gary Iverson, Senior Environmental Planner, *Cultural Resources Reviewer*
Claudia Harbert, Associate Environmental Planner, *Cultural Resources Reviewer*

### *City of Los Angeles*

John Koo, S.E., Senior Manager
Wenn Chyn, P.E. Project Manager
Grace David, P.E. Project Manager
Linda Moore, Environmental Supervisor
John Talcott, Utility Coordinator
James A. Treadaway, S.E., Bridge Improvement Program Manager
Uriel Jimenez, Real Estate Division Manager

### *Galvin Preservation Associates*

Andrea Galvin, President, *Historical Resources Manager*
Richard Galvin, Vice-President, *Environmental Project Manager*
Marieka Schrader, Senior Environmental Planner, *Project Planner*
Erinn Peterson, Associate Environmental Planner, *4(f) Evaluation*
Laura O'Neill, Graphic Artist, *Graphics*
Nicole Collum, Graphic Artist, *Graphics*

### *Psomas Engineering*

Anissa Voiyatzes, P.E., *Engineering Project Manager*
Ken Berkman, P.E., *Project Engineer*

### *AMBIENT Air Quality and Noise Consulting*

Kurt Legleiter, Air Quality Specialist, *Air Quality Report*

### *Acacia Engineers and Consultants*

Bryan C. Yates, Project Manager, *Hazardous Materials*

### *URS Corporation*

Lee Holguin, P.E., Project Manager
Kavita Mehta, AICP, Environmental Task Manager
Richard Burke, Planning Manager, *Quality Assurance*

Court Morgan, Planning Manager, *Quality Assurance*
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Joel Schneider, Urban/Environmental Planner, *Utilities and Emergency Services, Section 4f Evaluation*
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Roopa Dandamudi, Urban/Environmental Planner, *Community Impacts and Environmental Justice*
Javier Aguilar, Transportation Planner, *Traffic and Transportation, Pedestrian and Bicycle Facilities*
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Paul Nguyen, Air Quality Scientist, *Air Quality*
Jillian Baker, Air Quality Scientist, *Air Quality*
Tammy Chavez, Air Quality Scientist, *Air Quality*
Grant Linberg, Noise Specialist, *Noise*
Ron Reeves, Noise Specialist, *Noise*
Leonard Malo, Natural Resources Scientist, *Biological Resources*
Lucy Lin, Urban/Environmental Planner
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Kristin Hammond, Word Processor, *Word Processing*
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### *Consensus Planning Group*

Andrea Campbell, Public Outreach Manager

### *CNS Engineers*

James Lu, Bridge Retrofit

### *Los Angeles Department of Water and Power*

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Steve Boyles, Transmission Design

Dan Guerraro, Structural Design
James Golen, Electrical Design

### *Abratique & Associates*

Efren Abratique
Joe Kennedy, Signage, Striping, Traffic Handling and Utilities
Melvin Sukow, Utilities

### *Tatsumi and Partners, Inc.*

Michael Aceves, Landscape Architecture

### *IDC Consulting Engineers*

Shafi Sharifan, Structural Design
Xiaoyun Wu, Structural Design
Gerry Estepa, Structural Design

### *JRP Historical Consulting Services*

Rand F. Herbert, Architectural Historian, *HRER, FOE, Draft MOA Preparation*
Chris McMorris, Architectural Historian, *HRER, FOE, Draft MOA Preparation*

### *Paragon Partners*

James Rushing, P.E. Real Estate Right-of-Way Investigations
Jim Lemont, Real Estate Agent

### *Wagner Engineering & Survey, Inc.*

Stephanie A. Wagner, P.E. Mapping, Survey

### *M. Green & Associates*

Mel Green Architectural

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# Chapter 6. Distribution List

The Draft Environmental Impact Report/Environmental Assessment (DEIR/EA) and Final EIR/EA (FEIR/EA) were made available for review by the general public, government agencies, and other interested parties. The public notification process announcing the availability of the DEIR/EA and FEIR/EA is summarized below:

### *Notice of Completion*

The Notice of Completion (NOC) announcing release of the DEIR/EA was prepared and filed with the Governor's Office of Planning and Research State Clearinghouse, Los Angeles County Recorders Office and City of Los Angeles, Office of the City Clerk in March 2010. See Appendix P for a copy of the NOC.

### *Notice of Availability*

The Notice of Availability (NOA) of the DEIR/EA and public meeting invitation containing the project description and map, the locations where the DEIR/EA was available for viewing, and the comment period was directly mailed on or prior to March 15, 2010 to affected residents, businesses, all occupants in the proposed project area, adjacent property owners, registered attendees of the EIR scoping meeting and individuals who provided scoping comments. The mailing area covered businesses and residences located within a 2,000-foot radius from the North Spring Street Viaduct. See Appendix P for a copy of the NOA.

### *Locations Where the Draft EIR/EA was available for viewing*

Copies of the NOA and DEIR/EA were available for public review at the following locations:

- Lincoln Heights Branch Library at 2530 Workman Street, Los Angeles, CA 90031**;**
- Chinatown Branch Library at 639 North Hill Street, Los Angeles, CA 90012; Council District 1 Information Desk, 200 N. Spring Street, Room 410, Los Angeles, CA 90012 and field office at 163 S. Avenue 24, Room 202, Los Angeles, CA 90031;
- City of Los Angeles Department of Public Works Bureau of Engineering (BOE), Environmental Management Group at 221 N. Figueroa Street, Suite 350, Los Angeles, CA 90012;
- The BOE website: http://eng.lacity.org/techdocs/emg/Environmental_Review_Documents.htm

The following elected officials, agencies, and individuals were consulted during the preparation of the DEIR/EA. A copy of the NOA of the DEIR/EA and invitation to the

public meeting was provided to each of these persons on or prior to March 15, 2010. See Appendix P for a copy of the NOA.

- Addresses, including the superscript $^{+CD\text{-}ROM}$ were also sent copies of the DEIR/EA on $^{CD\text{-}ROM}$.
- Addresses, including the superscript $^{+PC}$ were also sent printed copies of the DEIR/EA.

Elected Officials

Congressperson Xavier Becerra (District 31)
1910 Sunset Blvd., Suite 810
Los Angeles, CA 90026

Congressperson Lucille Roybal-Allard (District 34)
255 E. Temple St., Ste. 1860
Los Angeles, CA 90012-3334

The Honorable Barbara Boxer
US Senator
312 N. Spring St. Suite 1748
Los Angeles, CA 90012

The Honorable Dianne Feinstein
US Senator
11111 Santa Monica Blvd., Suite 915
Los Angeles, CA 90025

California State Senate District 22
The Honorable Gilbert Cedillo
617 South Olive Street, Suite 710
Los Angeles, CA 90014

California State Assembly District 46
The Honorable John A. Perez
320 West 4th Street, Room 1050
Los Angeles, CA 90013

Los Angeles County Board of Supervisors District 1
The Honorable Gloria Molina
856 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

Los Angeles Mayor's Office
The Honorable Antonio Villaraigosa
200 N. Spring Street,
Los Angeles, CA 90012

Los Angeles City Council District 1 +PC
Jill Sourial, Council Deputy, River and the Environment
200 N. Spring Street, Room 410
Los Angeles, CA 90012

Los Angeles City Council District 1, Field Office +PC
163 S. Ave 24, Room 202
Los Angeles, CA 90031

Los Angeles City Council District 9
Greg Fischer, Planning & Transportation Deputy
200 N. Spring Street, Room 420
Los Angeles, CA 90012

Los Angeles City Council District 14
Edel Vizcarra, Planning & Transportation Deputy
200 N. Spring Street, Room 465
Los Angeles, CA 90012

**Federal Agencies**

Advisory Council on Historic Preservation +CD-ROM
John M. Fowler, executive director
Old Post Office Building
1100 Pennsylvania Avenue, NW, Suite 803
Washington, DC 20004

U.S. Environmental Protection Agency, Region 9 +CD-ROM
Office of Planning and Public Affairs Environmental Review Section
Nova Blazej, Regional NEPA Coordinator
75 Hawthorne Street
San Francisco, CA 94105

U.S. Army Corps of Engineers District Engineer +CD-ROM
Los Angeles District Corps of Engineers
915 Wilshire Blvd., Suite 980
Los Angeles, CA 90017

U.S. Department of Transportation, Federal Highway Administration, Region 9 +CD-ROM
Division Administrator
650 Capitol Mall, Suite 4-100
Sacramento, CA 95814-2724

Federal Emergency Management Agency +CD-ROM
Environmental and Historic Preservation
1111 Broadway, Suite 1200
Oakland, CA 94607-4052

**State Agencies**

Governor's Office of Planning & Research (OPR) +15 CD-ROM
State Clearinghouse
1400 Tenth Street
Sacramento, CA 95812-3044

California Air Resources Board +CD-ROM
1001 "I" Street
P.O. Box 2815
Sacramento, CA 95812

California Department of Fish and Game, Region 5 +CD-ROM
330 Golden Shore, Suite 50
Long Beach CA 90802

California Department of Parks and Recreation +CD-ROM
1925 Las Virgenes Road
Calabasas, CA 91302-1909

California Department of Parks and Recreation +CD-ROM
Los Angeles Sector
700 N. Alameda Street
Los Angeles, CA 90012

California Office of Historic Preservation +CD-ROM
Milford Wayne Donaldson, FAIA State Historic Preservation Officer
1416 9th Street, Room 1442-7
Sacramento, CA 95814

California Highway Patrol +CD-ROM
Los Angeles Communications Center (514)
2901 West Broadway
Los Angeles 90041

California Natural Resources Agency +CD-ROM
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

California Public Utilities Commission +CD-ROM
Los Angeles Office
320 West 4th Street, Suite 500
Los Angeles, CA 90013

California Native American Heritage Commission +CD-ROM
915 Capitol Mall
Sacramento, CA 95814-4801

California Health and Human Services Department +CD-ROM
1600 Ninth Street, Room 460
Sacramento, CA 95814

California Department of Water Resources +CD-ROM
1416 9th Street
Sacramento, CA 95814

California Regional Water Quality Control Board, District 4 +CD-ROM
320 West Fourth Street, Suite 200
Los Angeles, CA 90013

California Water Resources Control Board +CD-ROM
1001 I Street
Sacramento, CA 95814

California Department of Transportation, District 7 +8 CD-ROM+ 8 PC
Ronald Kosinski, Deputy District Director
Division of Environmental Planning
100 S. Main Street
Los Angeles, CA 90012

California Native Plant Society +CD-ROM
2707 K Street, Suite 1
Sacramento, CA 95816-5113

Department of Toxic Substances Control +CD-ROM
9211 Oakdale Avenue
Chatsworth, CA 91311-6505

California Business, Transportation & Housing Agency +CD-ROM
Environmental Policy and Integration
980 9th Street, Suite 2450
Sacramento, CA 95814-2719

**Regional Agencies**

Southern California Association of Governments
Mr. Hassan Ikhatra, Executive Director
818 W. Seventh Street, 12th Floor
Los Angeles, CA 90017

South Coast Air Quality Management District
Dr. Steve Smith, Ph.D., Program Supervisor, CEQA Section
21865 E. Copley Drive
Diamond Bar, CA 91765-4182

Metrolink
Strategic Development Planner
700 S. Flower Street, 26th Floor
Los Angeles, Ca 90017-4101

The Burlington Northern and Santa Fe Railway Company
LaDonna V. DiCamillo, Director of Government Affairs
One World Trade Center, Ste. 1680
Long Beach, CA 90831

Amtrak
800 North Alameda Street
Los Angeles, CA 90012-2178

**County Agencies**

Los Angeles County
Registrar-Recorder/County Clerk
12400 Imperial Highway
Norwalk, CA 90650

County of Los Angeles Community Development Commission
Sean Rogan, Executive Director
2 Coral Circle
Monterey Park, CA 91755

County of Los Angeles Department of Regional Planning +CD-ROM
Alexanian Sorin, Acting Deputy Director
Current Planning Division
320 West Temple Street
Los Angeles, CA 90012

County of Los Angeles Metropolitan Transportation Authority +CD-ROM
Doug Failing
Interim Chief Planning Officer
One Gateway Plaza
Los Angeles, CA 90012-2952

County of Los Angeles Department of Public Works, Planning Division
900 S. Fremont Ave.
Alhambra, CA 91803

Los Angeles County Sheriff's Department
Leroy D. Baca, Sheriff
4700 Ramona Blvd.
Monterey Park, CA 91754

**City of Los Angeles Departments**

City of Los Angeles +6 CD-ROM + 6 PC
Linda Moore, Environmental Supervisor
Department of Public Works Bureau of Engineering
Bridge Improvement Group
221 N. Figueroa Street, Suite 350
Los Angeles, CA 90012

City of Los Angeles Planning Department +CD-ROM
S. Gail Goldberg, AICP, Director of Planning
200 N. Spring Street
Los Angeles, CA 90012

City of Los Angeles Department of Cultural Affairs
Olga Garay, Executive Director
201 North Figueroa Street, Suite 1400
Los Angeles, CA 90012

City of Los Angeles, City Clerk +CD-ROM
Holly L. Walcott, Executive Officer
200 N. Spring Street, Rm. 360
Los Angeles, CA 90012

City of Los Angeles Department of Transportation +CD-ROM
John E. Fisher, Assistant General Manager
100 S. Main St., 10th Floor
Los Angeles, CA 90012

City of Los Angeles Department of Transportation +CD-ROM
Sami Wassef, Transportation Engineer
100 S. Main St., 10th Floor
Los Angeles, CA 90012

City of Los Angeles, Bureau of Street Lighting
Ed Ebrahimian, General Manager
Bureau of Street Lighting
1149 S. Broadway, Suite 200
Los Angeles, CA 90015

City of Los Angeles Housing Authority
John R. King II, Director
Planning and Intergovernmental Affairs Department
2600 Wilshire Blvd.
Los Angeles, CA 90057

City of Los Angeles Cultural Heritage Commission
Department of City Planning, Office of Historic Resources
Mr. Ken Bernstein, Manager of the Office of Historic Resources
200 N. Spring Street, Room 620
Los Angeles, CA 90012

City of Los Angeles Police Department
Chief Charlie Beck
100 West 1st Street
Los Angeles, CA 90012

City of Los Angeles Fire Department
Fire Chief Douglas L. Barry
200 N. Main Street, Room 1800
Los Angeles, CA, 90012

Los Angeles Unified School District +CD-ROM
Yi Hwa Kim, Deputy Environmental Health and Safety Director
Office of Environmental Health and Safety
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Project Restore
Kelvin Jew, Chief Operating Officer
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Los Angeles, CA 90012

Los Angeles Community Redevelopment Agency
Rodolfo Bocanegra, Senior Planner
354 S. Spring Street, Suite 800
Los Angeles, CA 90013

City of Los Angeles
Department of Public Works Bureau of Engineering
Real Estate Division
Uriel Jimenez, Division Manager
1149 S. Broadway, 6th Floor
Los Angeles, CA 90015

**Newspapers**

La Opinion, News Desk
Impre Media Digital
700 South Flower Street, Suite 300
Los Angeles, CA 90017

LA Times, News Desk
Carlos Lozano
202 w. 1st Street
Los Angeles, CA 90012
Carlos.lozano@latimes.com

Los Angeles Downtown News, News Desk
1264 W. 1st Street
Los Angeles, CA, 90026
Fax: 213-250-4617
realpeople@downtownnews.com
regardie@downtownnews.com

Sing-Tao, News Desk
17059 Green Drive
City of Industry, CA 91745
Fax: 626-956-8188
agnesmo@singtaola.com

**Other Interested and Potentially Affected Parties**

Gabrielino Tribal Council
Anthony Morales, Chairperson
P.O. Box 693
San Gabriel, CA 91778

Friends of the Los Angeles River
Lewis MacAdams, President
Joe Linton, Outreach Coordinator
570 W. Avenue 26 #250
Los Angeles, CA 90065

Los Angeles County Bicycle Coalition
Dorothy Le
Planning and Policy Director
634 South Spring Street
Los Angeles, CA 90014

Los Angeles Conservancy
Flora Chou, Preservation Activist
523 West 6th Street
Los Angeles, CA 90014-1248

Northeast Trees
Michael D'Annucci, Executive Director
570 West Ave 26
Los Angeles, CA 90065-1011

The California Endowment
Charles Fields, Senior Program Officer
1000 North Alameda Street
Los Angeles, CA 90012

Homeboy Industries
Administration
130 Bruno Street
Los Angeles, CA 90012-1815

Cathedral High School
1253 Bishops Road
Los Angeles, CA 90012

Los Angeles Hompa Hongwanji Betsuin Buddhist Temple
815 East First Street
Los Angeles, CA 90012

Bordello
Tony Gower and Elizabeth Peterson, Owners
901 E First Street
Los Angeles, CA 90012

Temple Medical Group
124 North Vignes Street
Los Angeles, CA 90012-4096

Daily Journal Newspaper
915 E. First St.
Los Angeles, CA 90012

LA River Arts & Business Association
Qathryn Brehm
837 Traction Ave #207
Los Angeles CA 90013

Color Graphics, Inc. and MCL Distributing
150 North Myers Street
Los Angeles, CA 90033

MCL Distributing
130 South Myers Street
Los Angeles, 90033

Cookes Crating Warehouse
Bryan Cooke
3124 E. 11th. Street
Los Angeles, CA 90023

Whittier Memorial Medical Center
Albert R. Deininger, Vice President
1720 Cesar E. Chavez Avenue
Los Angeles, CA 90033

Concerned Citizens of SCLA
Noreen McClendon
4707 S Central Avenue
Los Angeles, CA 90011

Little Tokyo Business Association
244 South San Pedro Street
Los Angeles, CA 90012-3856

Japanese American Cultural & Community Center
Chris Aihara, Executive Director
244 S. San Pedro Street, Suite 505
Los Angeles, CA 90012

Downtown Business Improvement District
Carol Schatz, President
626 Wilshire Boulevard, #200
Los Angeles, CA 90017

Lincoln Heights Branch Library [+PC]
Reference Desk
2530 Workman Street
Los Angeles CA 90031

Chinatown Branch Library [+PC]
Reference Desk
639 North Hill Street
Los Angeles, CA 90012

Toy Distributing Company
1137 E. 1st Street
Los Angeles, CA 90033

Hispanic Urban Center
1201 E. 1st Street
Los Angeles, CA 90033

Warehouse and Distribution Center
1313 E. 1st Street
Los Angeles, CA 90033

Plaza Child Observation & Development Satellite Center
1315 E. 1st Street
Los Angeles CA 90033

K.M. Office Services
1733 N. Spring Street
Los Angeles, CA 90012

Mai Fashion
1721 N. Spring Street
Los Angeles, CA 90012

Loh Sun International
1709 N. Spring Street
Los Angeles, CA 90012

FEC Ginseng & Marine Products
1701 N. Spring Street
Los Angeles, CA 90012

Dara Gelof
1635 N. Spring Street
Los Angeles, CA 90012

Solano Canyon Historic Cultural Neighborhood Council
Alicia V. Brown
501 Solano Avenue
Los Angeles, CA 90012

Current Occupant
1635, 1639 and 1710 N. Spring Street
Los Angeles, CA 90012

Current Occupant
1321 E. 1st Street
Los Angeles, CA 90033

Current Occupant
1325 E. 1st Street
Los Angeles, CA 90033

Current Occupant
1329 E. 1st Street
Los Angeles, CA 90033

Current Occupant
1331 E. 1st Street
Los Angeles, CA 90033

Current Occupant
1333 E. 1st Street
Los Angeles, CA 90033

Current Occupant
1337 E. 1st Street
Los Angeles, CA 90033

Adelante Eastside Redevelopment Agency
Donna DeBruhl-Hemer, Project Manager
1916 E. First Street
Los Angeles, CA 90033

Utah Street Elementary School
255 N. Clarence Street
Los Angeles, CA 90033

Ann Street Elementary School +CD-ROM
126 Bloom Street
Los Angeles, CA 90012

Albion Elementary School
322 South Avenue 18
Los Angeles, CA 90031

Historic Cultural Neighborhood Council
c/o The Koban
307 E. 1st Street
Los Angeles, CA 90012

Downtown LA Neighborhood Council
Russell Brown, President
P.O. Box 13096
Los Angeles, CA 90013-0096

Owner
312 Aurora Street
Los Angeles, CA 90012

Owner
314 Aurora Street
Los Angeles, CA 90012

Owner
315 Aurora Street
Los Angeles, CA 90012

Owner
1637 N. Spring Street
Los Angeles, CA 90012

Owner
1640 N. Spring Street & Silvany Tract Lot 1
Los Angeles, CA 90012

Owner
1654 N. Spring Street
Los Angeles, CA 90012

Owner
1700 N. Spring Street
Los Angeles, CA 90012

Owner
1701 N. Spring Street
Los Angeles, CA 90012

Owner
1709 N. Spring Street
Los Angeles, CA 90012

Owner
1711 N. Spring Street
Los Angeles, CA 90012

Owner
1721 N. Spring Street
Los Angeles, CA 90012

Owner
1727 N. Spring Street
Los Angeles, CA 90012

Owner
1745 N. Spring Street
Los Angeles, CA 90012

Owner
1756 N. Spring Street
Los Angeles, CA 90012

Owner
1786 N. Spring Street
Los Angeles, CA 90012

Owner
1796 N. Spring Street
Los Angeles, CA 90012

The NOP and meeting invitation mailing list included businesses and residences located within a 2,000-foot radius from the North Spring Street Viaduct.

### *Locations Where the FEIR/EA was available for viewing*

Copies of the FEIR/EA were available for public review at the following locations:

- BOE, Environmental Management Group at 221 N. Figueroa Street, Suite 350, Los Angeles, CA 90012; and
- BOE website: http://eng.lacity.org/techdocs/emg/Environmental_Review_Documents.htm

### *Locations Where the Revised FEIR/EA is available for viewing*

Copies of the Revised FEIR/EA are available for public review at the following locations:

- BOE, Environmental Management Group at 221 N. Figueroa Street, Suite 350, Los Angeles, CA 90012; and
- BOE website: http://eng.lacity.org/techdocs/emg/Environmental_Review_Documents.htm

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# Chapter 7. List of Abbreviations

| | |
|---|---|
| AADT | Annual Average Daily Traffic |
| AB | Assembly Bill |
| ACHP | Advisory Council on Historic Places |
| AASHTO | American Association of State Highway and Transportation Officials |
| ACM | Asbestos-Containing Materials |
| ACOE | United States Army Corps of Engineers |
| ADA | Americans with Disabilities Act of 1990 |
| ADL | Aerially Deposited Lead |
| ADT | Average Daily Traffic |
| AEP | Association of Environmental Professionals |
| AIR | Artists in Residence |
| APE | Area of Potential Effect |
| APN | Assessor's Parcel Number |
| AQMP | Air Quality Management Plan |
| ARB | Air Resources Board |
| AST | Above-Ground Storage Tanks |
| ASTM | American Society for Testing and Materials |
| Basin Plan | Water Quality Control Plan, Los Angeles Region |
| BAT | Best Available Technology |
| BCT | Best Conventional Pollutant Control Technology |
| BIP | Bridge Improvement Program |
| BMP | Best Management Practices |
| BOE | City of Los Angeles Bureau of Engineering |
| BSA | Biological Study Area |
| CAA | Clean Air Act |
| CAAQS | California Ambient Air Quality Standards |
| Cal EPA | California Environmental Protection Agency |
| Cal OSHA | California Occupational Safety & Health Administration |
| Caltrans | California Department of Transportation |
| CARB | California Air Resources Board |
| CASP | Cornfields Arroyo Seco Specific Plan |
| CCAA | California Clean Air Act |
| CCR | Code of California Regulations |
| CDC | California Department of Conservation |
| CDFG | California Department of Fish and Game |
| CEQ | Council on Environmental Quality |
| CEQA | California Environmental Quality Act |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act |
| CERFA | Community Environmental Response Facilitation Act |
| CESA | California Endangered Species Act |
| CFR | Code of Federal Regulations |
| CHC | City of Los Angeles Cultural Heritage Commission |

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| CHRIS | California Historical Resources Information System |
| CIDH | Cast-In-Drilled-Holes |
| City | City of Los Angeles |
| CNEL | Community Noise Equivalent Level |
| CNK | Charnock Fault |
| CNPS | California Native Plant Society |
| CO | Carbon Monoxide |
| $CO^2$ | Carbon Dioxide |
| County | Los Angeles County |
| CRHR | California Register of Historic Places |
| CTR | California Toxics Rule |
| CWA | Clean Water Act |
| dB | Decibel |
| dBA | A-Weighted Decibels |
| DEIR | Draft Environmental Impact Report |
| DPM | Diesel-Exhaust Particulate Matter |
| DPR | California Department of Parks and Recreation |
| DTSC | Department of Toxic Substances Control |
| EA | Environmental Assessment |
| EAD | Environmental Affairs Department |
| EBL | Eligible Bridge List |
| EDR | Environmental Data Resources |
| EIR | Environmental Impact Report |
| EIS | Environmental Impact Statement |
| E.O. | Executive Order |
| EPK | Elysian Park Seismic Zone |
| ESA | Environmentally Sensitive Area |
| °F | Degrees Fahrenheit |
| FCAA | Federal Clean Air Act |
| FEIR | Final Environmental Impact Report |
| FEMA | Federal Emergency Management Agency |
| FESA | Federal Endangered Species Act |
| FHWA | Federal Highway Administration |
| FIFRA | Federal Insecticide, Fungicide, and Rodenticide Act |
| FIP | Federal Implementation Plan |
| FIRM | Flood Insurance Rate Map |
| FOE | Finding of Effect |
| FONSI | Finding of No Significant Impact |
| FSTIP | Federal Statewide Transportation Improvement Program |
| FTIP | Federal Transportation Improvement Plan |
| GHG | Greenhouse Gases |
| GMC | Growth Management Chapter |
| HABS | Historic American Buildings Survey |
| HAER | Historic American Engineering Record |
| HAP | Hazardous Air Pollutants |
| HBP | Highway Bridge Program |

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| HBRR | Highway Bridge Rehabilitation and Replacement |
| HCM | City of Los Angeles Historic-Cultural Monument |
| HPOZ | Historic Preservation Overlay Zones |
| HPSR | Historic Property Survey Report |
| HRER | Historic Resources Evaluation Report |
| HRI | California State Historical Inventory |
| Hz | Hertz |
| I-5 | Interstate Highway 5 |
| I-10 | Interstate Highway 10 |
| IS | Initial Study |
| ISA | Initial Site Assessment |
| kV | Kilovolts |
| LADWP | Los Angeles Department of Water and Power |
| LAFD | Los Angeles Fire Department |
| LAMC | Los Angeles Municipal Code |
| LAPD | Los Angeles Police Department |
| LARRP | Los Angeles River Revitalization Plan |
| LASDOT | Los Angeles Department of Transportation |
| LASHP | Los Angeles State Historic Park |
| Leq | Equivalent Sound Level |
| Lmax | Maximum Noise Level |
| LOS | Level of Service |
| Lp | Sound Pressure Levels |
| Lx | Percentile-Exceed Sound Level |
| BOE | City of Los Angeles Department of Public Works, Bureau of Engineering |
| MBTA | Migratory Bird Treaty Act |
| MCE | Maximum Credible Earthquake |
| Metro | Los Angeles County Metropolitan Transportation Authority |
| Mg/L | Milligrams Per Liter |
| MLD | Most Likely Descendent |
| MM | Mitigation Measure |
| MMR | Malibu Coast-Santa Monica-Hollywood-Raymond Fault |
| MOA | Memorandum of Agreement |
| MSAT | Mobile Source Air Toxics |
| MS4 | Municipal Separate Storm Sewer System |
| MUTCD | California Manual on Uniform Traffic Control Devices |
| NAAQS | National Ambient Air Quality Standards |
| NAC | Noise Abatement Criteria |
| NAHC | California Native American Heritage Commission |
| NBIS | National Bridge Inspection Standards |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NHPA | National Historic Preservation Act |
| NIE | Newport-Inglewood-Rose Canyon Fault |
| NOD | Notice of Determination |

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| NOP | Notice of Preparation |
| $NO_X$ | Nitrogen Oxides |
| $NO_2$ | Nitrogen Dioxide |
| NPDES | National Pollutant Discharge Elimination System |
| NPS | National Park Service |
| NRHP | National Register of Historic Places |
| OHP | Office of Historic Preservation |
| $O_3$ | Ozone |
| PA | Programmatic Agreement |
| Pb | Lead |
| pCi/L | Pico Curries Per Liter |
| PES | Preliminary Environmental Study |
| PHI | California Points of Historical Interest |
| $PM_{2.5}$ | Fine Particulate Matter |
| $PM_{10}$ | Respirable Particulate Matter |
| POAQC | Project of Air Quality Concern |
| PRC | Public Resources Code |
| PUC | Public Utilities Commission |
| RAP | Relocation Assistance Program |
| RCP | Reinforced Concrete Pipe |
| RCRA | Resource Conservation and Recovery Act |
| REC | Recognized Environmental Conditions |
| RTIP | Regional Transportation Improvement Program |
| RTP | Regional Transportation Plan |
| RWQCB | Regional Water Quality Control Board |
| SAC | San Andreas Fault |
| SAFETEA-LU | Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users |
| SCAB | South Coast Air Basin |
| SCAG | Southern California Association of Governments |
| SCAQMD | South Coast Air Quality Management District |
| SCCIC | South Central Coastal Information Center |
| SCRA | Southern California Rail Authority |
| SER | Caltrans Standard Environmental Reference |
| SHPO | State Historic Preservation Officer |
| SHS | State Highway System |
| SIP | State Implementation Plan |
| SRHC | State Historic Resources Commission |
| SLIC | Spills, Leaks, Investigations, and Cleanup |
| $SO_2$ | Sulphur Dioxide |
| SPRR | Southern Pacific Railroad |
| SR | Sufficiency Rating |
| SR-110 | State Route 110 |
| SR-710 | State Route 710 |
| SWRCB | State Water Resources Control Board |
| SWPPP | Storm Water Pollution Prevention Plan |

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| TAC | Toxic Air Contaminants |
| TCM | Transportation Control Measures |
| TCWG | Transportation Conformity Working Group |
| TEA-21 | Federal Transportation Equity Act for the 21st Century |
| TeNS | Caltrans Technical Noise Supplement |
| TMDL | Total Maximum Daily Load |
| TMP | Traffic Management Plan |
| TSM | Transportation System Management |
| TDM | Transportation Demand Management |
| TSCA | Toxic Substances Control Act |
| UBC | Uniform Building Code |
| UPRR | Union Pacific Railroad |
| U.S. | United States |
| U.S. DOT | United Stated Department of Transportation |
| U.S. EPA | United States Environmental Protection Agency |
| U.S. 101 | United States Highway 101 |
| USFWS | United States Fish and Wildlife Service |
| UST | Underground Storage Tank |
| V/C | Volume to Capacity |
| VCP | Voluntary Cleanup Program |
| VOC | Volatile Organic Compounds |
| WEE | Whittier-Elsinore Fault |
| WQCP | Water Quality Control Plan |

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# Chapter 8. Glossary of Technical Terms

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| **Abutment** | First and last supports of a bridge. |
| **Accordion Door** | Door that opens and closes by expanding and contracting in a similar fashion to an accordion. |
| **Alluvial Fan** | Fan-shaped alluvial deposit formed when a water course loses velocity and deposits debris at the mouth of a ravine or base of a mountain. |
| **Alluvium** | Loose, unconsolidated soils or sediments. |
| **Annual High Water Mark** | Highest level reached by a body of water that has been maintained for a sufficient period of time as to leave a mark on the landscape. |
| **Amplitude** | Loudness |
| **Anticline** | Arch-shaped fold in rock in which the rock layers are upwardly convex (bulging) and the oldest part of the rock is in the innermost fold of the rock. |
| **Apex** | Top or highest point of something, especially a point. |
| **Approach** | Part of bridge or bridges leading up to the main span. |
| **Aqueduct** | Water Supply or navigable channel built to convey water. |
| **Arch** | Structural form utilizing a semicircular substructure. |
| **Arch Ring** | Load-bearing curved portion of an arched structure. |
| **Asphaltum** | Term used for asphalt before the 20$^{th}$ century. Sticky, black, and highly viscous liquid or semi-solid present in most petroleum products. |
| **Assemblage** | Group of archaeological artifacts found in association with each other. |
| **Baluster** | Short pillar or column in a series. |

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| **Base Flood Elevation** | Elevation to which the water level is expected to rise during a 100-year flood event. |
| **Beam** | Horizontal structure member supporting vertical loads by resisting bending. |
| **Bent** | Part of a bridge substructure. A single or multi-column frame commonly made of reinforced concrete or steel that supports a vertical load and is placed transverse to the length of a structure. Bents are commonly used to support beams and girders. |
| **Berm** | Mound or wall of earth or sand. |
| **Bolster** | Short length of timber fixed to the top of a post to increase the bearing area and reduce the span of the supported beam. |
| **Bracket** | Support projecting from a wall or similar piece to hold or bear the weight of a shelf or similar. |
| **Jack Arch** | Structural element in masonry construction that provides support at openings in the masonry. |
| **Bungalow** | Type of residential structure widely popular between approximately 1910 and 1939. |
| **Cable Restrainer** | Piece placed at intermediate hinges and abutments of bridges to prevent shifting during a seismic event. |
| **Cantilever** | Long, projecting beam or girder fixed only at one end. |
| **Catch Basin** | Receptacle or reservoir designed to collect storm water runoff and keep debris from entering the drainage system. |
| **Choppers** | Crudely flaked core tool used commonly in the early Paleolithic period. |
| **Columns** | Vertical supporting elements of a bridge. |
| **Corbelled Cornice** | Horizontal molded projection with a decorative bracket that appears to support a wall or beam. |

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| **Crown** | Highest point or summit. |
| **Decibel** | General degree of loudness. |
| **De Minimis** | Level so minimal that it is not of concern. |
| **Diaphragm** | Thin sheet of material forming a partition. |
| **Direct Tangent Arc** | Traditional "T" Intersection |
| **Deck** | Portion of a bridge superstructure in contact with vehicle tires. |
| **Dredge** | To clean, deepen, or widen the bed of an area of water. |
| **Electrolier** | Fixture for holding electric lamps. |
| **Escarpment** | Steep slope or long cliff that results from erosion or faulting and separates two relatively level areas of differing elevations. |
| **Expansion Joint** | Gap in steel of concrete to allow for thermal expansion. |
| **Ethnographer** | Anthropologist who deals with the description of specific human cultures. |
| **Façade** | Face of a building, particularly the primary face. |
| **Fenestration** | Design and placement of windows in a building. |
| **Fill** | To build up ground. |
| **Frequency** | Pitch |
| **Hardscaping** | Part of the landscape made up of structures, such as paving, retaining walls, and other features made with hard materials. |
| **Horizon** | Widely spread period of common art and artifacts at an archaeological site or, more usually, over a larger geographic area, and is a distinctive level in that site's or area's archaeological sequence. |

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| **Impervious Surface** | Not able to be penetrated; impermeable. |
| **Interbedded** | Lying between alternate beds of differing soil or rock types. |
| **Lintel** | Structural, ornamental, or combined structural ornamental element found over portals, Doors, and windows. |
| **Liquefaction** | Process by which sediment that is very wet starts to behave like a liquid. |
| **Mezzanine** | Partial story between the two main stories of a building. |
| **Milling Slick** | A stone slab on which corn and other grains were historically milled. |
| **Mortar** | Bowl used with a pestle to grind, crush, and mix solid substances. |
| **Nomadic** | Moving from place to place. |
| **Oblique** | Neither perpendicular nor parallel to a given line or surface; slanting; sloping. |
| **Oblique Slip Fault** | Fault that has slippage on both the strike (direction of the fault trace) and the dip (depth of slope on the fault plane) of the fault plane (fracture surface of a fault). |
| **Panel Point** | Point between two or more members of a truss. |
| **Parabolic** | Having the shape of a parabola, which is defined as a symmetrical open plane curve formed by the intersection of a cone with a plane parallel to its side. |
| **Peak Hour** | Times at the beginning and end of the day where traffic is heavy; rush hour. |
| **Pedestal** | Base or support on which a column is mounted. |
| **Pestle** | Grinding tool used with a mortar to grind, crush, and mix solid substances. |

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| **Pier** | Vertical support or substructure unit that supports the spans of a multi-span superstructure at an intermediate location between its abutments. |
| **Pile** | Long vertical steel or concrete elements drilled or driven deep into the ground to form part of a foundation. |
| **Profile** | View or representation of an object in contour or outline. |
| **Reverse Fault** | Fault where the hanging wall (rocks resting above the footwall) has moved upward relative to the foot wall (rocks located below the fault plane) along the fault plane (fracture surface). |
| **Rib** | Long, narrow, usually arched member projecting from a structure. |
| **Rivet** | Metal bolt or pin having a head on one end, inserted through aligned holes in the pieces to be joined. |
| **Ruderal** | Vegetation type that grows in disturbed areas. |
| **Sash** | Frame that contains the panes of a window or door. |
| **Scraper Planes** | Tools that were used either for hide working or woodworking purposes. |
| **Seats** | Bearing widths that support the superstructure. |
| **Seiche** | Back and forth or up and down movement of a body of water in an enclosed basin. |
| **Serpentine Rock** | Rock formed from ultramafic rock subjected to hydration, heat, and pressure. |
| **Shear** | Strain produced by pressure in the structure of a substance when its layers are laterally shifted in relation to each other. |
| **Shear Capacity** | Amount of shear (strain) a beam can withstand before failure. |

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| **Silhouette** | Image of an object consisting of the outline and a featureless interior, with the silhouetted object usually being black. |
| **Single Leaf Door** | Most common type of door, consisting of a single rigid panel that fills the doorway. |
| **Skewed** | Placed at an angle. |
| **Soffit** | Underside of an architectural structure, such as an arch or overhanging. |
| **Spall** | Splinter or chip. |
| **Span** | Distance between bents, piers, towers, or abutments. |
| **Spandrel** | Roughly triangular space between one side of the outer curve of an arch and the rectangle formed by the moldings enclosing it. |
| **Steatite** | Also known as soapstone, composed of mineral talc and rich in magnesium. |
| **Steel Casing** | Steel pipe placed around another element for various applications. |
| **Strike-Slip Fault** | Fault where the footwall moves right or left with very little vertical movement. |
| **Stringer** | Long, heavy horizontal timber used as a support or connector. |
| **Strut** | Structural element used to brace or strengthen a framework by resisting longitudinal compression. |
| **Substructure** | Any portion of a bridge structure below the superstructure, including abutments, columns, walls, and foundations that support the superstructure. |
| **Superstructure** | Portion of a bridge structure that carries the traffic load and transfers it to the substructure. |

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| **Surface Articulation** | Method of styling the joints in the formal elements of architectural design so that each part is united with the whole in a particular style. |
| **Suspended Section** | Structure with horizontal plane supported by cables hung from large, high-strength steel cables. |
| **Tangential** | Diverging. |
| **T-Beam** | Metal beam or bar with a T-shaped cross-section. |
| **Terminus** | Ending point. |
| **Thrust Fault** | Fault where ground on one side of the fault moves up and over adjacent ground. |
| **Truss** | Rigid framework, as of wooden beams or metal bars, designed to support a structure. |
| **Ultramafic Rock** | Various rocks formed by the cooling and solidification of magma. |
| **Vanishing Point** | Point at which parallel lines receding from an observer seem to meet. |
| **Viaduct** | Long, bridge-like structure, typically a series of arches, which carries a road or railroad over a wide valley or over other roads, railroads, or waterways. |
| **Viticulture** | Cultivation of grapes. |
| **Zanja** | Open ditch. |

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# Chapter 10. Responses to Comments

## Introduction

The purpose of the public review of the North Spring Street Viaduct Widening and Rehabilitation Project Environmental Impact Report/Environmental Assessment (EIR/EA) is to evaluate the adequacy of the environmental analysis in terms of compliance with the California Environmental Quality Act (CEQA). Section 15151 of the CEQA Guidelines outlines the standards from which adequacy of an EIR is judged. Primarily, an EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. The EIR need not be exhaustive, perfect, or include unanimous consensus; but it does need to be adequate, complete, and a good faith effort at disclosure.

The purpose of each response to a comment on the Draft EIR/EA (DEIR/EA) is to address the significant environmental issue(s) raised by each comment. This typically requires clarification of points contained in the DEIR/EA. Section 15088 (b) of the CEQA Guidelines describes the evaluation that CEQA requires in the response to comments.

Section 15204(a) (Focus Review) of the CEQA Guidelines helps the public and public agencies to focus their review of environmental documents and their comments to lead agencies. Case law has held that the lead agency is not obligated to undertake every suggestion given them, provided that the agency responds to significant environmental issues and makes a good faith effort at disclosure. Section 15204.5(a) of the CEQA Guidelines clarifies this for reviewers and provides that when responding to comments, lead agencies need only to respond to significant environmental issues and do not need to provide all information requested, as long as a good faith effort at disclosure is made.

The CEQA Guidelines encourages reviewers to examine the sufficiency of the environmental document, particularly in regard to significant effects, and to suggest specific mitigation measures and project alternatives. Given that an effect is not considered significant in the absence of substantial evidence, Section 15204(c) advises reviewers that comments should be accompanied by factual support.

## List of Public Agencies and Individuals Providing Comments

A complete list of commenting public agencies and private individuals is provided below.

**Federal Agencies**

FEMA, U.S. Department of Homeland Security
Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch
1111 Broadway, Suite 1200
Oakland, CA 94607-4052
Letter Dated: 3-24-10

## State Agencies

State of California Public Utilities Commission
Rosa Munoz, PE, Utilities Engineer
Rail Crossing Engineering Section
Consumer Protection & Safety Division
320 West 4th Street, Suite 500
Los Angeles, CA 90013
Letter Dated: 3-23-10

State of California Department of Parks and Recreation
Angeles District
Sean Woods, Superintendent
1925 Las Virgenes Road
Calabasas, CA 91302
Letter Dated: 4-28-10

## Local Agencies

City of Los Angeles Department of City Planning
Cultural Heritage Commission
Richard Barron, President
200 N. Spring Street, Room 620
Los Angeles, CA 90012-4801
Letter Dated: 4-15-10

Los Angeles Conservancy
Tom Buhler, Director of Advocacy
523 West Sixth Street, Suite 826
Los Angeles, CA 90014
Letter Dated: 4-28-10

## Private Individuals

The Metabolic Studio
Adolfo V. Nodal, Consultant
1745 N. Spring Street
Los Angeles, CA 90012
Letter Dated: 4-27-10

Toby Mazzie Jr.
Building/Business Owner
1711 N. Spring Street
Los Angeles, CA 90012
Letter Dated: 4-27-10

Joyce Dillard
P.O. Box 31377
Los Angeles, CA 90031
Letter Dated: 4-28-10

Dr. C.T. Williams
4115 Barrett Road
Los Angeles, CA 90032
Letter Dated: 4-28-10

A. Martinez
Lincoln Heights
ani@chimatli.org
Emailed Comment Dated: 4-28-10

## Responses to Comments

All written comment letters and comments made during the public comment and public meeting on the DEIR/EA are published in this section. The comment have been included verbatim in the "Comment" column of *Table 10-1,* and are followed by the written responses. Complete transcripts of the public comment meeting are provided in Appendix P.

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## Table 10-1 Responses to Comments

| COMMENT LETTER | COMMENT NUMBER | COMMENT | RESPONSE TO COMMENT | SECTION WHERE CHANGES WERE MADE |
|---|---|---|---|---|
| **Comment Letter 1, FEMA** | 1-1 | Review the current effective countywide Flood Insurance Maps for the County of and City of Los Angeles, Maps revised September 26, 2008. | The Flood Insurance Rate Map (FIRM) # 06037C1628F was reviewed and incorporated in the revised Final EIR/EA (FEIR/EA) as *Figure 2-30*. As noted in Section 2.9.3 of the DEIR/EA and revised FEIR/EA, a small portion of the proposed project area is located within a 100-Year floodplain; however, it was concluded that the Zone AE flooding (see *Figure 2-30*) is most likely associated with a different discharge source than the Los Angeles River, and that the Los Angeles River flow is contained within the channel banks (see Appendix Q). Under Build Alternatives 2 and 3, the viaduct deck would be lengthened and the pier length would be extended downstream. The pier width would remain the same. Modeling was conducted to analyze how these features would impact hydrology and water surface elevation, and it was determined that extending the piers in length in the direction of flow within the channel would have a minimal impact on the base flood water surface elevation that would not result in any flood risks. | Section 2.9.3, Appendix Q |
| **Comment Letter 2, California Public Utilities Commission** | 2-1 | The Commission should be listed under Section 1.5 [Draft EIR/EA] Permits and Approvals Needed. | The Public Utilities Commission (PUC) has been added to the list in the Summary Section and Section 1.3.4 Permits and Approvals Needed. | Summary, Section 1.3.4 |
| **Comment Letter 3, CA Department of Parks and Recreation, Los Angeles District** | 3-1 | California State Parks is concerned not only with the Project's potential direct impacts to our park [Los Angeles State Historic Park HCM No. 82 River Station Area/Southern Pacific Railroad], but with the proposed alternatives affecting the historic character of the immediately surrounding area and adjacent historic properties, including the North Spring Street Bridge itself, the Women's Building, the Raphael Junction Block Building, and the San Raphael Building. | Under the preferred alternative (Build Alternative 2 with Design option A), only Historic-Cultural Monument (HCM) No. 900 North Spring Street Viaduct would be affected, no other HCMs would be affected by the proposed project. The City of Los Angeles (City) has added a Design Option A, which entails a reduced single-sided widening, to minimize the overall impacts to the historic viaduct. This design option was developed in coordination with the City of Los Angeles Office of Historic Resources (OHR), the Cultural Heritage Commission (CHC) and the Los Angeles Conservancy. | Section 1,3.3 and Appendix H |
| **Comment Letter 3, CA Department of Parks and Recreation, Los Angeles District** | 3-2 | In order to consider alternatives that would reduce or eliminate direct impacts to historical properties we suggest reconsideration of an alternative for the construction of a separate pedestrian/bicycle bridge which would meet most of the project goals while allowing the subject bridge to retain its National Register eligibility, California Register listing, and HCM designation. | Construction of a separate pedestrian/bicycle bridge was considered but eliminated from further consideration in the DEIR/EA because it would require impractical bicycle crossings on North Spring Street, would not eliminate the geometrical insufficiencies of the viaduct, and could not be funded. Additional discussion has been added to the revised FEIR/EA in Section 1.3.3 and in the Supplemental Finding of Effect (FOE) Report to further explain the rationale for eliminating this alternative. The City has added a Design Option A to Build Alternative 2 to minimize the overall impacts to the historic viaduct. As discussed above, this design option was developed in coordination with the OHR, the CHC, and the Los Angeles Conservancy to maintain the viaduct's HCM designation. | Chapter 1, Section 2.7 |
| **Comment Letter 3, CA Department of Parks and Recreation, Los Angeles District** | 3-3 | We have been advised that build alternative 4, which proposes partial acquisition of Los Angeles State Historic Park, is no longer under consideration due to unavoidable impacts to the park. This build alternative should be removed completely and not appear in the FEIR. | Build Alternative 4 has been removed from the environmental analysis portion of the revised FEIR/EA, and is included only as an alternative "considered and eliminated" from further consideration. | Throughout Chapter 1 and Chapter 2 |
| **Comment Letter 3, CA Department of Parks and Recreation, Los Angeles District** | 3-4 | California State Parks, in fact, became aware of this proposal only in the later stages of planning for this Project. The inclusion of this alternative in the DEIR suggests minimal coordination in the project's initial planning stages with California State Parks and other affected agencies and community stakeholders. | Please see Chapter 4 and Appendix P of the revised FEIR/EA for a detailed description of public outreach and agency coordination conducted for the project. The City met California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) public participation and noticing requirements concerning the preparation and availability of the DEIR/EA and public comment meeting notices. A Notice of Preparation (NOP) of the DEIR/EA for the proposed project was prepared and circulated to elected officials, public agencies, and individuals, including the California Department of Parks and Recreation (DPR), along with the Initial Study (IS) for a 30-day review period that began on September 14, 2006, and closed on October 20, 2006. Subsequent to the circulation of the NOP representatives of the City's Bureau of Engineering (BOE) met with Los Angeles State Historic Park (LASHP) staff at a meeting convened by the owner of the Raphael Junction Block building Additional public outreach was conducted as stated in the revised FEIR/EA in Appendix P. The DEIR/EA, Notice of Availability (NOA), and notice of a public hearing were also circulated to appropriate elected officials, public agencies, and individuals, including the California DPR. Build Alternative 4 has been removed from further consideration, and this has been reflected in the revised FEIR/EA. | Throughout Chapters 1 and 2, Chapter 4, and Appendix P |
| **Comment Letter 3, CA Department of Parks and Recreation, Los Angeles** | 3-5 | Similar openness and outreach in the City's planning process is apparently lacking and should be required through the completion of this project. | Please see response to Comment Letter 3, Comment 3-4, and Chapter 4 and Appendix P of the revised FEIR/EA. Extensive public outreach has been conducted for the project during preparation of the DEIR/EA | None |

| COMMENT LETTER | COMMENT NUMBER | COMMENT | RESPONSE TO COMMENT | SECTION WHERE CHANGES WERE MADE |
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| **District** | | | and revised FEIR/EA. | |
| **Comment Letter 4, Cultural Heritage Commission** | 4-1 | The DEIR neglects to cite the North Spring Street Bridge's designation as a Historic-Cultural Monument (HCM #900) in all major sections of the DEIR. The DEIR omits any reference to the subject bridge's Historic-Cultural Monument status. In light of the Bureau of Engineering's active involvement during the HCM designation process in 2007, this lapse is very pressing and has therefore resulted in a DEIR that does not adequately address the local designation of the subject bridge as a historic resource. | The designation has been added in the revised FEIR/EA. The revised FEIR/EA addresses the historic resource aspects of the bridge throughout the document | Section 2.7.2 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-2 | The DEIR should evaluate which alternatives would allow for the North Spring Street Bridge to retain Historic-Cultural Monument (HCM) status and listing in the National Register of Historic Places /California Register of Historical Resources. As part of its CEQA evaluation, the DEIR does not evaluate alternatives to address the local designation of the subject bridge as a Historic-Cultural Monument. Alterations to the North Spring Street Bridge under a widening alternative (V-2; V-3; V-4) would potentially result in a loss of its HCM designation. For the Final EIR, all alternatives should be assessed to study specifically the potential impacts on HCM eligibility, as well as continued eligibility for the National Register and California Register. | The City added Design Option A. This design option was developed according to the American Association of State Highway and Transportation Officials (AASHTO) Guidelines for Historic Bridge Rehabilitation and Replacement (2007) and was developed in coordination with the OHR, CHC, and the Los Angeles Conservancy, among other stakeholders.<br><br>This design option was developed to explore an alternative that might retain the viaduct's HCM status. If this design option is selected and the proposed addition meets the Secretary of the Interior's Standards for Rehabilitation, then the viaduct should retain its HCM status, if the CHC determines it so. All of the alternatives have explored the impacts to the viaduct, including its eligibility for the National Register of Historic Properties (NRHP) and California Register of Historic Properties (CRHR), as well as HCM status. This discussion is included in the Supplemental FOE Report as well as Chapter 2 of the revised FEIR/EA. | Sections 1.3.2, 2.7.3, and 2.7.6 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-3 | The July 2002 substandard sufficiency rating of 74.2% that is driving the need for the project is only 5.8% less than the minimum 80%. [Chapter 1] The Federal Highway Administration (FHWA) has inspection criteria that rates bridges "substandard" and eligible for federal funding if rated under 80%. Because of the minimal percentage difference, the analysis that determined the current sufficiency rating should be revaluated. The Guidelines for Historic Bridge Rehabilitation and Replacement (2007) by the American Association of State Highway and Transportation Officials (AASHTO) have recommended that historic preservation considerations be applied for determining the feasibility of bridge rehabilitation projects when assessing substandard ratings. | The Federal Highway Administration (FHWA) is responsible for determining the sufficiency rating, of bridges, which is determined by the National Bridge Inspection Standards (NBIS) condition rating code. The NBIS evaluates the overall condition and structural integrity of the bridge in the areas of capacity (structural), geometry (functional) and safety. The Sufficiency Rating (SR) identifies the need for improvements. Once a bridge is identified as needing improvements, the City secures funding to bring the SR to the minimum level. The Highway Bridge Program (HBP) funding that has been allocated to improve the deficiencies of the bridge requires that the improvements remove the bridge from the eligible bridge list (EBL) by reaching an SR of 80.<br><br>The North Spring Street Viaduct received a SR of 73.5 and was evaluated twice by both the California Department of Transportation (Caltrans) and FHWA in the past and would therefore not require re-evaluation for sufficiency. However, because the viaduct is historic, the City followed the Guidelines for Historic Bridge Rehabilitation and Replacement (2007) by the AASHTO when developing appropriate alternatives for the project, which resulted in the development of a Design Option A for Alternative 2. Design Option A would minimize the overall width of the viaduct widening, while still meeting the project objective and bringing the SR to 80. | None |
| **Comment Letter 4, Cultural Heritage Commission** | 4-4 | Strategy R-D has conflicting information concerning Historic-Cultural Monument #872, Raphael Junction Block Building. [Chapter 1] The description for Strategy R-D concerning the Roadway component of the proposed project states that the proposed reconfiguration streets would "avoid acquisition of the Raphael Junction Block building;" however, it still calls for the acquisition of 1635 North Spring Street. The 1635 North Spring Street property address is the Raphael Junction Block Building. | This discussion has been removed from the revised FEIR/EA. | Section 1.3.1 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-5 | Alternative Strategy V-5, construction of a new pedestrian/cyclist bridge, should be reconsidered. [Chapter 1] Strategy V-5 proposed "constructing a pedestrian and bicycle bride adjacent to the existing viaduct" but was eliminated as an alternative. This alternative would meet most of the project goals while still allowing the subject bridge to retain its National Register eligibility, California Register listing, and HCM designation. | Please see response to Comment Letter 3, Comment 3-2. | Chapter 1, Section 1.3.3, and Appendix H |
| **Comment Letter 4, Cultural Heritage** | 4-6 | The DEIR relies upon artificial constraints on the subject bridge's current width, which have significantly driven the analysis of project alternatives. A wider bridge could result in significant impacts on communities on both | Please see response to Comment Letter 4, Comment 4-3. The objectives of the project cannot be accomplished within the current footprint of the North Spring Street Viaduct; therefore, widening of the structure is an essential component of the proposed project. The physical constraints of the lane widths are | Chapter 1, Section 1.3.2 |

| COMMENT LETTER | COMMENT NUMBER | COMMENT | RESPONSE TO COMMENT | SECTION WHERE CHANGES WERE MADE |
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| **Commission** | | sides. While it is well known that additional street capacity quickly fills up when it becomes available, in this case the wider footprint of the new bridge will immediately become constricted into narrower arterial streets on the western side of the proposed project. Furthermore, Federal standards regarding bridge width appear to be artificially constraining alternatives and limiting preservation options. The Final EIR should explore successful approaches nationally to preserving historic bridges, including possible opportunities to work with Federal officials to maintain existing widths for historic bridges. The Final EIR should also consider the extent to which the bridge's overall footprint itself may be considered a character-defining feature of the existing Monument. Additionally, the Final EIR should evaluate the cost-savings of maintaining the scope of the project within the footprint of the current bridge, thereby eliminating the need to acquire private property as necessitated by a bridge widening. | prescribed by FHWA and Los Angeles Department of Transportation (LADOT). The project is acknowledged to include an unavoidable adverse effect on the historic structure including the demolition of many of its character-defining features, including the structure's footprint. The proposed project retains the same number of through traffic lanes as the current configuration; therefore, adverse impacts associated with average daily traffic (ADT) growth on adjacent streets is not anticipated.<br><br>The viaduct's footprint was not identified as a character-defining feature in the documentation prepared for the eligibility of the viaduct (Caltrans, Monument Bridge Survey). With the exception of Phase 2 for Build Alternatives 2 and 3, the project would not require the acquisition of additional right-of-way. The proposed viaduct widening would occur within existing City right-of-way. Following AASHTO Guidelines for Bridge Rehabilitation (2007), the LADOT has agreed to minimize the vehicle lane widths to less than what is required for the North Spring Street's classification as a Major Highway – Class II and to reduce the sidewalk widths for Design Option A. This option would reduce the overall width of the viaduct and would not require acquisition of additional right-of-way. Design Option A is considered a preservation option. | |
| **Comment Letter 4, Cultural Heritage Commission** | 4-7 | The DEIR is accurate in stating that the Build Alternatives for widening the subject bridge would have an adverse impact and are inconsistent with the Secretary's Standards for the Treatment of Historic Properties but neglects to state the loss of historic resource eligibility. (2.7.3.3., Chapter 2) The Environmental Consequences section of the DEIR is largely correct in discussing the effects of the widening alternative to the historic resource, but fails to explicitly state that the proposed project may result in National Register eligibility, California Register delisting, and potential loss of HCM designation. | Text has been added to the revised FEIR/EA that describes the expected change in these designations, which would be a consequence of the significant impact already noted in the document. Text has been revised, due to clarifications of the description of Build Alternative 1, that this alternative would meet the Secretary of the Interior's Standards and would therefore retain NRHP, CRHR, and HCM status. Additionally, the City has added a Design Option A, which would also result in the retention of the HCM designation if the addition is designed to meet the Secretary of the Interior's Standards for Rehabilitation. Additional text has been added to introduce the new design option in Chapter 1 and Chapter 2. | Executive Summary Table S-2 and Sections 1.3.1 and 2.7.3 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-8 | The potential mitigation measures for Build Alternatives 2 to 4 are inadequate. [2.7.7, Chapter 2] The mitigation measures listed for widening of the subject bridge and demolition of the Raphael Junction Block building are inappropriate. The two mitigation measures simply call for HABS recordation and photo-documentation of the North Spring Street Bridge and the Raphael Junction Block building. This approach is entirely inadequate to mitigate the loss of two Historic-Cultural Monuments. | Please see Comment Letter 4, Response to Comment 4-2. Consideration was given to moving the Raphael Junction Block Building or cutting and re-facing the eastern portion of the building; however, based upon an engineering survey, it was determined that the building could neither sustain such an operation nor be relocated to another site. This determination drove the development of the strategy for Build Alternative 2, which would avoid impacts to the Raphael Junction Block Building.<br><br>As stated in Section 1.4 of the DEIR/EA and revised FEIR/EA, Build Alternatives 2 and 3 would meet the purpose and need of the proposed action, but would involve significant, unavoidable impacts to the features of the viaduct that convey its historic significance and that justify its eligibility for the NRHP and its listing as an HCM. Alternative 4 was removed from further consideration during the environmental process and has been moved from the Project Alternatives Section 1.3.2 to Section 1.3.3 Alternatives Considered but Eliminated from Further Discussion.<br><br>The Section 106 process, mandated because federal funds would be used to partially pay for the proposed project, requires FHWA and Caltrans to enter into a Memorandum of Agreement (MOA) with the State Historic Preservation Officer (SHPO) and the Advisory Council on Historic Preservation (ACHP). The City may be invited to participate in that MOA. The City has developed mitigation measures in conjunction with the OHR, the Los Angeles Conservancy, and Caltrans' Architectural Historian. These measures include Historic American Engineering Record (HAER) documentation, review of proposed project plans for conformance with the Secretary of the Interior's Standards, retention of the bronze plaques, installation of new interpretive plaques and informational displays, as well as retention or reuse of existing historic materials. | Chapter 2 and Section 2.7.6. |
| **Comment Letter 4, Cultural Heritage Commission** | 4-9 | The DEIR's Cumulative Impacts sections inadequately addresses potential cumulative impacts of the Bureau of Engineering's bridge program and other planned projects. [Chapter 2]. Section 2.2.5 states that "no other projects are expected to impact land uses near the proposed project." However, Bureau of Engineering staff have previously discussed a planned project for the North Main Street Bridge (HCM #901), near the subject bridge and within viewing distance, which involves the construction of a new bridge. Previous reports have discussed the North Broadway-Buena Vista Bridge (1911), the North Main Street Bridge (1910), and the subject bridge as a thematic subgrouping which would be impacted by the bridge program's planned projects. The DEIR also failed to acknowledge the Los Angeles- | The North Spring Street Viaduct spans Metrolink tracks on both sides of the Los Angeles River and there has been some discussion of using portions of Metrolink's track resources to accommodate High Speed Rail connections to Union Station; however, these discussions are very much in the conceptual stage and issues exist both upstream and downstream of the North Spring Street Viaduct that make use of the stretch of track problematic.<br><br>The North Spring Street Viaduct is individually designated as HCM #900 and was individually determined eligible for the NRHP. Caltrans prepared a study of the Los Angeles Monumental Bridges from 1900-1950 in 2004 (JRP Historical Consulting), which concluded that the Monumental Bridges over the Los Angeles River did not constitute a historic district. Therefore, cumulative impacts to other City HCM bridges is not anticipated as a result of the proposed project. These clarifications have been added to Section 2.2.5. Selection of Design | Section 2.2.5 |

| COMMENT LETTER | COMMENT NUMBER | COMMENT | RESPONSE TO COMMENT | SECTION WHERE CHANGES WERE MADE |
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| | | Palmdale EIR/EIS California High-Speed Rail Project which may propose rail alignments that will impact the North Spring Street Bridge and its vicinity. | Option A would further reduce the overall impacts to the historic viaduct and therefore would also not cause a cumulative impact to other Los Angeles River bridges. | |
| **Comment Letter 4, Cultural Heritage Commission** | 4-10 | The Less than Significant Impact finding in the Visual Mitigation section of the Visual Impact Assessment does not adequately assess impacts by the widening of the bridge. [Appendix N]. The alternatives that call for the widening of the subject bridge, addition of new piers and deck, and replacement of character-defining features would permanently obscure and alter original 1927 features. Additions made “in like” to mimic lost elements, such as the railing, light fixtures, and piers, would be misconstrued as being original character-defining features. The addition of 40 feet to the width of the subject bridge would also adversely affect the spatial relationship between these features in relation to the road width, appearing under-scaled and overwhelmed by the size of the roadway. | Section 2.6.3.3 and Appendix N of the DEIR/EA and revised FEIR/EA discuss visual impacts of the project. While the loss of architectural features such as the barrier railing and electroliers would occur, it is worthy to note that many of the original elements of the viaduct as originally constructed have been altered, concealed, or removed as a consequence of local maintenance efforts in the past. Section 2.6.3.3 has been expanded in the revised FEIR/EA to discuss visual impacts of Build Alternative 2 with Design Option A, which has been identified as the preferred alternative in the revised FEIR/EA.<br><br>This alternative would avoid visual impacts to the north side of the viaduct, while reducing the widening on the south side. This design option would either have an appearance similar to the existing Beaux-Arts design or would have a new, differentiated design. While this option would change the visual appearance of portions of the viaduct, it would be designed to be visually compatible in scale, location, setting, design, materials, workmanship, feeling, and association of the historic viaduct, and would be designed to maintain views of the existing viaduct features to the extent feasible. As a result, this differentiated design would not be expected to result in adverse visual impacts. The other option to replace the existing viaduct features with those that would have a similar look. | None |
| **Comment Letter 4, Cultural Heritage Commission** | 4-11 | The DEIR fails to cite the Guidelines for Historic Bridge Rehabilitation and Replacement by the American Association of State Highway and Transportation Officials (AASHTO). Conducted as part of the National Cooperative Highway Research Program (NCHRP) and requested by the American Association of State Highway and Transportation Officials (AASHTO) in 2007, the report sought to establish guidance for balanced and consistent decision making in “rehabilitation versus replacement” bridge projects. As a pertinent project dealing with these same issues, the report should be addressed as part of the DEIR. | Reference to this document has been added in Section 2.7.1 of the revised FEIR/EA. While the cited AASHTO Guidelines were published after the inception of project planning, the principles they incorporate had already been applied as part of the conceptual development for all historic bridge and viaduct structures in the City’s Bridge Improvement Program (BIP). | Section 2.7 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-12 | The Area of Potential Effects (APE) determined in 2005 appears to inadequately encompass the buildings impacted by the project. [Appendix H] The APE as established in consultation between the California Department of Transportation (Caltrans) and the Bureau of Engineering through the Section 106 review appears to selectively exclude buildings immediately adjacent to the subject bridge as well as buildings fronting North Spring Street. A cursory review of these buildings and their respective construction dates through the Zoning Information and Map Access System (ZIMAS) reveals that all these buildings are pre-WWII era and over 45 years old: 1640 N. Spring Street: 1925 1727 N. Spring Street: 1914, 1700 N. Spring Street: 1901 1719 N. Spring Street: 1910, 1726 N. Spring Street: 1920/1934. | The determination of the project’s Are of Potential Effect (APE) was guided by Appendix 3 of the Programmatic Agreement Among FHWA, Caltrans, and the SHPO. The APE only includes properties that have a potential to be affected by the proposed undertaking, to avoid unnecessary evaluation of excessive properties that would not be affected by the project. Each of the addresses cited are outside the proposed project’s APE and would not be affected by the proposed project. The even-numbered addresses are located west of Aurora Street along the south side of North Spring Street where no alteration or improvement is contemplated. The odd-numbered address (1727 N. Spring) is situated at the northwest corner of Aurora Street and North Spring and is also outside of the work area of the proposed project. The identification of which properties require assessment is determined by the potential for effect on those properties and not by the property’s age or relative location to the construction activities. | None |
| **Comment Letter 4, Cultural Heritage Commission** | 4-13 | The survey of three properties that were recorded under the existing APE dates to 2002 and as such as is now nearly 10 years old. [Appendix I] The survey of three properties that were found to be ineligible for the National Register of Historic Places was performed in 2002. Since that date, one of the buildings, 1635-39 N. Spring Street was declared a Historic-Cultural Monument. | The properties cited in the Historic Property Survey Report (HPSR) (see Appendix H) did not exclude the properties cited because of age; rather, they were excluded because in the preparer’s opinion, they lacked sufficient integrity to be considered historic. Subsequent to these findings, the City Council disagreed and granted HCM status to the Raphael Junction Block building, 1635 North Spring Street. The HCM status of this building has been noted in the revised FEIR/EA. | Section 2.7 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-14 | The Historic Property Survey Report has outdated contact information for the Cultural Heritage Commission in the Consulting Parties/Public Participation section. [Appendix H] Section 3 contains “Ms. Isabel Rosas, Commission Executive Assistant II, Los Angeles Cultural Heritage Commission” as a contact person in the Consulting Parties/Public Participation Section of the Appendix H. Ms. Rosas left her position in 2004. Please replace her name with “Mr. Edgar Garcia, Preservation Planner, | The updated contact information is provided in Appendix H of the revised FEIR/EA. Changes to personnel have been noted in the Supplemental FOE Report. | Appendix H |

| COMMENT LETTER | COMMENT NUMBER | COMMENT | RESPONSE TO COMMENT | SECTION WHERE CHANGES WERE MADE |
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| | | Office of Historic Resources, Department of City Planning." | | |
| **Comment Letter 4, Cultural Heritage Commission** | 4-15 | The DEIR's Distribution List should update its contact information for the Office of Historic Resource, Department of City Planning. [Chapter 6] The DEIR lists Mr. Glen Dake, Cultural Heritage Commission member, as the contact person for the Office of Historic Resources. It would be more appropriate to list staff members of the Office of Historic Resources in the Distribution List. Please replace Mr. Dake's name with Mr. Ken Bernstein, Manager of the Office of Historic Resources. This should be corrected to ensure proper notification procedures. | The requested updates have been made to the distribution list in Chapter 6 of the revised FEIR/EA. | Chapter 6 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-16 | The Cultural Heritage Commission urges the Bureau of Engineering to address the comments and concerns provided and develop Standards-compliant EIR alternatives that would allow for the maximum retention of the North Spring Street bridge in its current configuration and ensure its protection as a Historic-Cultural Monument. | Please see Comment Letter 4, Response to Comment 4-2. The City has added Design Option A that would allow for the maximum retention of the North Spring Street Viaduct and protect its HCM status. | Sections 1.3.2, 2.7.3 and 2.7.6 |
| **Comment Letter 4, Cultural Heritage Commission** | 4-17 | The Cultural Heritage Commission also supports roadway alternatives that will not require the demolition of HCM #872, the Raphael Junction Block building. | Comment noted. Build Alternative 2, which is identified in the revised FEIR/EA as the preferred alternative, would not require the removal of this building. | None |
| **Comment Letter 4, Cultural Heritage Commission** | 4-18 | To ensure the Cultural Heritage Commission's continued input on this project, we formally request a future presentation at a scheduled public hearing upon the release of the Final Environmental Impact Report (FEIR). Your continued dialogue with the Office of Historic Resources and our Commission is greatly appreciated. | There will be multiple opportunities for the CHC to provide further input regarding the proposed project. The revised FEIR/EA, consisting of the draft document (corrected and amended as required), comments received, and responses to those comments, will be presented to the Transportation Committee of the City Council, together with a request that the committee transmit a recommendation to the City Council that the document be certified and action on the project be taken. Traditionally, the committee receives comments from the public at that time. The City has consulted with the CHC members and the OHR as part of the development of a design option to minimize impacts to the historic viaduct. The City presented the design options to the CHC in May 2011. | None |
| **Comment Letter 5, Los Angeles Conservancy** | 5-1 | Despite suggesting specific options in our comments on the Notice of Preparation, we are disappointed that the DEIR does not bring forward any potentially feasible alternatives that maintain the bridge's status as a City of Los Angeles Historic-Cultural Monument. | Please see Comment Letter 4, Response to Comment 4-2. The City has added a Design Option A that would allow for the maximum retention of the North Spring Street Viaduct and protect its HCM status. Several alternatives were considered but eliminated from further consideration. Refer to Section 1.3.3 for further discussion as to why these alternatives were not considered in the revised FEIR/EA. | Sections 1.3.2, 2.7.3, and 2.7.6 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-2 | At the outset, we would like to express our dismay over the drastically accelerated schedule for final approval of the proposed project, with the Bureau of Engineering (BOE) seeking to respond to comments on the DEIR, circulate the Final EIR, and bring the project to the City Council for a final vote by June 2010. | Please see response to Comment Letter 3, Comment 3-4. Extensive outreach has been also been conducted since June of 2010, as outlined in the Chapters 1 and 4 of the revised FEIR/EA. | Chapter 1 and Chapter 4 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-3 | In addition to limiting opportunities for meaningful public comment, the hastened project schedule has resulted in significant errors and omissions in the DEIR.<br>For instance, despite the BOE's participation in the nomination process, the DEIR fails to acknowledge the bridge's local monument status and, consequently, does not evaluate the project's potential impacts on HCM eligibility.<br>Such oversights cast serious doubt on the BOE's willingness to thoroughly consider less harmful preservation alternatives to the proposed project. | Please see response to Comment Letter 3, Comment 3-2. The updated description of the viaduct's HCM eligibility has been included in the revised FEIR/EA. This information supports the conclusion presented in the DEIR/EA that the proposed project would have a significant impact on historic resources due to modification of the historical features of the viaduct. A large number of alternatives were evaluated in the DEIR/EA and revised FEIR/EA, as noted in Sections 1.3.1 through 1.3.4, which included serious consideration of alternatives such as a separate pedestrian/bicycle bridge that would cause less harm to historic resources. Under further analysis in response to comments provided on the DEIR/EA, the City has added Design Option A, which would minimize impacts on the North Spring Street Viaduct. The revised FEIR/EA provides additional information on the impacts on the HCM eligibility. | Sections 2.7.2 and 2.7.3 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-4 | By failing to evaluate a single potentially feasible alternative that would maintain the bridge's historic status, the DEIR for the North Spring Street | Please see response to Comment Letter 3, Comment 3-2. | Section 1.3.3 and Appendix H |

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| | | Viaduct project fails to meet this fundamental charge under CEQA. | | |
| **Comment Letter 5, Los Angeles Conservancy** | 5-5 | The EIR should clearly identify all AASHTO standards and guidelines pertaining to historic bridge projects, including the Historic Bridge Rehabilitation and Replacement Guidelines, and take advantage of their inherent flexibility to develop alternatives that reduce or avoid significant adverse impacts on historic resources, including construction of a stand-alone pedestrian-cyclist crossing alongside the historic span. | Please see response to Comment Letter 4, Comments 4-2 and 4-3. The DEIR/EA and revised FEIR/EA refer to AASHTO guidelines (see Section 1.3.2). Additional text has been added to Section 2.7.1 of the revised FEIR/EA to provide additional information regarding AASHTO guidelines. | Sections 1.3.2, 2.7.1, 2.7.3, and 2.7.6 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-6 | It is misleading and inaccurate to describe the proposed undertaking as a "rehabilitation" project. The Secretary of the Interior's Standards for Rehabilitation define "rehabilitation" as "the act or process of returning a property to a state of utility through repair or alteration which makes possible an efficient contemporary use while preserving those portions or features of the property which are significant to its historical, architectural, and cultural values." The proposed project would remove virtually all visible historic fabric on the North Spring Street Viaduct in order to widen the bridge 20 feet on each side – without adding any new traffic lanes. In addition to removing historic fabric, the scale and dimensions of the historic span will be dramatically altered by nearly doubling its current width. A legitimate rehabilitation project cannot be predicated on the removal of all visible historic fabric. Moreover, the proposed replication of the bridge's original features in a new, widened span does not mitigate their loss. | The term "rehabilitation" is used in the normal sense, defined as "restoration to good condition." The HBP program provides funding for rehabilitation projects to restore bridges to an SR of 80. The commenter agrees with the conclusions stated in the DEIR/EA that Build Alternatives 2 and 3 would not meet the Secretary of the Interior's Standards for Rehabilitation and would unavoidably and adversely affect the historic features of the bridge. | None |
| **Comment Letter 5, Los Angeles Conservancy** | 5-7 | Unlike the Sixth Street Viaduct Seismic Improvement Project, where seismic deficiencies have been well documented, the need for retrofitting the North Spring Street Viaduct is unclear given extensive seismic repairs completed in 1992. The Historic American Engineering (HAER) report prepared by the National Park Service and the BOE in December 2000 includes a detailed description of these improvements: North Spring Street Bridge was upgraded [in 1992] for a seismic safety event by adding shear keys and replacing the rocker bearings with elastomeric bearing pads. Cable restrainers were used to prevent displacement of girders on the pads. Concrete pads closing the expansion joints installed at the east and west arch abutments and pier 3 made the deck a continuous load-bearing structural element. | The seismic design standards were substantially upgraded as a result of the Northridge Earthquake of 1994; therefore, additional retrofit is required. | None |
| **Comment Letter 5, Los Angeles Conservancy** | 5-8 | Although the Conservancy recognizes enhanced pedestrian and bicycle access as a legitimate goal, there are less harmful alternatives that would accomplish this objective without destroying the historical integrity of the North Spring Street Viaduct. | Comment noted. Please see response to Comment Letter 4, Comment 4-2. | None |
| **Comment Letter 5, Los Angeles Conservancy (11)** | 5-9 | Because widening the North Spring Street Viaduct will likely destroy its eligibility as a historic resource, the Conservancy favors an alternative that would retrofit the existing span, if needed, and construct a stand-alone pedestrian-cyclist bridge alongside it. Under this option, we propose that the existing sidewalk be removed to enable widening the lanes to the maximum extent possible within the existing bridge deck. | Please see response to Comment Letter 3, Comment 3-2. Several alternatives were considered but eliminated from further consideration, including a stand-alone pedestrian-cyclist bridge and removing the existing sidewalk on the north side of the viaduct. Refer to Section 1.3.3 for further discussion as to why these alternatives were not considered in the revised FEIR/EA. | Section 1.3.3 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-10 | The BOE is currently favoring a similar approach for the Riverside-Zoo Drive Bridge, after initially proposing to widen the bridge on both sides. Like the North Spring Street Viaduct, the Riverside-Zoo Drive Bridge is not wide enough to meet current design standards for lane width and shoulder. At the request of the Conservancy and the city's Office of Historic Resources, the BOE developed an alternative that would provide pedestrian-cyclist access | Please see response to Comment Letter 3, Comment 3-2. | None |

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| | | on a new parallel span, enabling lanes on the historic bridge to be widened within the existing bridge deck for vehicular traffic and thereby maintaining its historic eligibility. This strategy could be easily adapted for the North Spring Street Viaduct, providing myriad environmental and other public benefits. Foremost, this option provides the desired pedestrian-cyclist connection with no significant adverse impacts to the historic North Spring Street Bridge. It could be designed to enable a direct pedestrian-cyclist linkage between the Los Angeles State Historic Park (Cornfields) to the west and the recently expanded city parklands on the southeast side of historic bridge, creating opportunities for coordinated public programming. Likewise, it would correct any seismic vulnerability issues specific to the viaduct and reduce "geometrical design deficiencies" by widening lanes within the existing bridge deck. | | |
| **Comment Letter 5, Los Angeles Conservancy** | 5-11 | Despite the obvious benefits of a stand-alone pedestrian-cyclist crossing, the DEIR for the North Spring Street Viaduct project summarily rejects a similar option (Strategy V5) without serious consideration. Although the publicly-owned right-of-way extends out approximately 20 feet on each side of the existing bridge, the "Rejection Rationale" in the DEIR states that "construction of a stand-alone pedestrian-cyclist structure would…be difficult to connect new structure to existing street system." The Conservancy has requested a copy of any studies prepared by BOE in support of this conclusion, but none have been provided to date. | Please see response to Comment Letter 3, Response to Comment 3-2. Additional information has been provided in Section 1.3.3 of the revised FEIR/EA. | Section 1.3.3 |
| **Comment Letter 5, Los Angeles Conservancy** | 5-12 | As noted by the Cultural Heritage Commission, the APE established in consultation with Caltrans and the BOE as part of Section 106 consultation excludes several buildings immediately adjacent to the North Spring Street Viaduct and others fronting North Spring Street, including: 1640 N. Spring Street (1925), 1700 N. Spring Street (1901), 1726 N. Spring Street (1920/1934), 1727 N. Spring Street (1914), and 1719 N. Spring Street (1910). Because the APE was determined based on an outdated survey prepared in 2002, the DEIR also fails to acknowledge that 1695-39 N. Spring Street – originally found to be ineligible for the National Register – has since been designated a City of Los Angeles Historic-Cultural Monument. | The APE was established in consultation and approval from Caltrans, based upon the proposed project's features and their potential to affect buildings, structures, or objects on parcels adjoining the work area. Structures not included within the project APE were omitted because there is no potential for direct or indirect affects resulting from the project. Caltrans approved the APE (as noted on *Figure 2-28* in the revised FEIR/EA), on February 14, 2008 and March 11, 2008. | None |
| **Comment Letter 6, Adolfo V. Nodal, Consultant, The Metabolic Studio** | 6-1 | We believe that the Draft EIR is inadequate in addressing the community impact of the project while needlessly destroying an important historic/architectural resource in one of Los Angeles' most important historic areas that will also be a future urban development spine of the City on the LA River. Specifically we believe that the Draft EIR fails to identify Farmlab and Under Spring as a significant "Community Service Facility". | The revised FEIR/EA has been revised to include a discussion of Farmlab and Under Spring as a community service facility. Discussion has been added to the community impacts discussion regarding temporary impacts to this facility during construction. While this facility may be temporarily impacted during construction, following construction the project would not result in any long-term adverse impacts to this facility. | Section 2.3.1 |
| **Comment Letter 6, Adolfo V. Nodal, Consultant, The Metabolic Studio** | 6-2 | The proposal to widen the North Spring Street Bridge by 40 feet (20 feet on each side), while providing no additional traffic capacity, will result in dramatic and irreversible adverse impacts on its eligibility as a historic resource. | The DEIR/EA and revised FEIR/EA identify in the Executive Summary, Section 2.7, and Section 3.3.3 that Build Alternatives 2 and 3 would result in significant and unavoidable adverse impacts on the North Spring Street Viaduct. While the project would not increase capacity, it would improve traffic circulation and would allow for improved bicycle and pedestrian transportation. | None |
| **Comment Letter 6, Adolfo V. Nodal, Consultant, The Metabolic Studio** | 6-3 | Although Farmlab and Under Spring are in the shadow of the North Spring Street Bridge and is widely recognized as a community resource, the Draft EIR does not identify Farmlab or Under Spring as a "community service facility" within the proposed project area. The Draft EIR does not identify Under Spring as an "existing landscape unit" within the proposed project area. | See Comment Letter 6, Response to Comment 6-1. Landscape Unit 1 is described in the DEIR/EA as the "channelized river area, including railroad tracks on either side of channelized river." The Farmlab and Under Spring facility is considered to be within this landscape unit. The revised FEIR/EA has been revised to include the urban landscapes under the bridge, including the Farmlab and Under Spring facility, as a part of the urban landscape. | Sections 2.3.1 and 2.6.2 |

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| **Comment Letter 6, Adolfo V. Nodal, Consultant, The Metabolic Studio** | 6-4 | The FHWA [Visual Impact Assessment] manual defines affected environment in terms of landscape units, or outdoor rooms. Landscape units are defined as an area or volume of distinct landscape character, which form spatially enclosed units at ground level; landscape units may include more than one landscape type.<br><br>Farmlab and the outdoor space under the North Spring Street Bridge (Under Spring) is a unique urban landscape unit as stated above. The Bureau of Engineering made no effort to contact our organization directly or meet with the Metabolic Studio about the impacts of the proposed project and how to mitigate them. We are not identified in the Draft EIR. | See Comment Letter 6, Response to Comment 6-3. The City met with representatives from Farmlab during the preparation of the EIR/EA. The Farmlab and Under Spring are considered to be a part of the urban landscape existing under the viaduct. Views of the urban landscape would be temporarily impacted during construction, but following construction the project would not be expected to substantially affect the visual character of this facility. Areas under the bridge would also be difficult to see by pedestrians or motorists crossing the viaduct, so views of these areas would be only minimally impacted by viaduct widening. Information regarding the urban landscape under the viaduct, including the Metabolic Studio, Farmlab, and Under Spring, has been included in the revised FEIR/EA. | Sections 2.3.1 and 2.6.2 |
| **Comment Letter 6, Adolfo V. Nodal, Consultant, The Metabolic Studio** | 6-5 | Because widening the bridge will destroy its eligibility as a historic resource – and jeopardize Farmlab and Under Spring's continued existence – we favor an alternative that would construct a stand-alone pedestrian-cyclist bridge that would bypass the North Spring Street Bridge altogether. Under this alternative, the existing bridge would be seismically retrofitted as needed and its sidewalk would be removed to widen the lanes within the existing bridge deck.<br><br>Despite its obvious environmental benefits, the Draft EIR rejects this alternative (Strategy V5) without serious consideration. The "Rejection Rationale" in the EIR states that "Construction of a stand-alone pedestrian-cyclist structure would be difficult to connect new structure to existing street system." No studies are provided to support this conclusion. We disagree with this finding. We think that there are a variety of possibilities to accomplish this requirement.<br><br>In another City bridge project, the historic Riverside-Zoo Bridge, in lieu of widening this equally historic bridge, the Bureau of Engineering is favoring a stand-alone pedestrian-cyclist bridge for that project. We think that this alternative should be further studied in the case of the North Spring Street Bridge.<br><br>We believe that the bridge alternative provides pedestrian-cyclist connection with no adverse impacts to historic North Spring Street Bridge. Strategy V5 enables direct pedestrian-cyclist linkage between Farmlab and Los Angeles State Historic Park (Cornfields) west of the North Spring Street Bridge to expanded access on southeast side of existing bridge, providing opportunities for coordinated programming. Strategy V5 enables continued operation of Farmlab and other projects as unique community asset; Corrects existing seismic vulnerability issues specific to the viaduct; Reduces "geometrical design deficiencies" by widening lanes within existing bridge deck. | Please see Comment Letter 6, Response to Comments 6-1 and 6-3. The proposed project would result in temporary construction impacts to the Farmlab and Under Spring facility; however, long-term impacts would not be expected. As noted in the comment, constructing a separate bicycle/pedestrian bridge would avoid adverse impacts to the North Spring Street Viaduct; however, this alternative was analyzed and was considered to be infeasible for several reasons. Discussion on why the alternative to construct a separate bicycle/pedestrian structure has been expanded in Chapter 1 of the revised FEIR/EA.<br><br>The BOE considered an alternative for the Riverside-Zoo Bridge that would employ separate pedestrian/bicyclist facilities on either side of the existing structure. The existing Riverside-Zoo Bridge had 2 sidewalks from which to gain extra roadway width and thus was able to come very close to the minimum FHWA roadway requirements. Although the Sufficiency Rating was marginally insufficient, the Riverside-Zoo Bridge project did not receive special dispensation to participate in the HBP. | Section 1.3.3 |
| **Comment Letter 7, Toby Mazzie Jr., Comment (1)** | 7-1 | I own 1727 North Spring and have concerns about how parking will be handled at the cul-de-sac on Aurora Street. My tenants currently park perpendicular to the building. Will that change with the cul-de-sac installation? | The proposed cul-de-sac included as part of the project would not be expected to result in changes to the existing parking along Aurora Street. | None |
| **Comment Letter 8, Joyce Dillard** | 8-1 | The area is too narrow and too dangerous for bicycle and pedestrian accommodation. This should not be a goal until the City adopts Traffic Congestion Plans and safe routes for children's passage. | The proposed roadway improvements have been designed to meet applicable guidelines, and the vehicle lane widths, sidewalks, and bike lanes would be of sufficient width to safely accommodate these modes of travel. | None |
| **Comment Letter 8, Joyce Dillard** | 8-2 | Wilhardt Street is too close to the down slope of the bridge and any stop sign or regular access would need increased public safety addressed, both for need and long-term fiscal resources for sustention. Speeds on the flats and down slope speeds should be addressed. Truck traffic is a key concern | Section 2.5.2 of the DEIR/EA and revised FEIR/EA describe the existing traffic conditions at the intersection of Spring Street and Wilhardt Street, including existing safety conditions resulting from the slope of the viaduct. As discussed in the EIR/EA, the traffic study completed for the project recommended signalization of this intersection to address these safety concerns, and these improvements were incorporated into the project | None |

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| | | in the area and should be accommodated in this report. | design. A discussion of the truck traffic was included in Section 2.5.2 of the DEIR/EA, and truck volumes are included in the roadway segment analysis. Additional information on truck volumes is included in Appendix M of the DEIR/EA and revised FEIR/EA. | |
| **Comment Letter 8, Joyce Dillard** | 8-3 | Any utility equipment transfers to underground needs a cost-benefit analysis before design of the bridge. Franchise-owned fiber-optic lines and Franchise-owned telephone and cable-related facilities would need to be addressed at this point. | Comment noted. Utility relocations and/or undergrounding would be conducted according to applicable requirements and coordinated with the appropriate parties. Section 2.4.2 and *Table 2-10* in the EIR/EA include a discussion of potential utility relocation requirements for the project. *Table 2-10* discusses whether the utility would need to be protected in place or relocated. | None |
| **Comment Letter 8, Joyce Dillard** | 8-4 | Correct traffic studies combined with the future transportation plans of the area need careful analysis. | The traffic study completed for the project analyzed existing (2008), opening year (2015), and future year (2035) traffic conditions in the study area. The 2035 traffic volumes were obtained from the latest Southern California Association of Government (SCAG) Regional Transportation Model that includes traffic generated by all projects anticipated to be completed by 2035. As discussed in Section 2.5.3 of the DEIR/EA and revised FEIR/EA, the traffic analysis was based on this information, as well as city growth assumptions and information from the LASHP project traffic projections, and analyzed using traffic modeling software to create projections. | None |
| **Comment Letter 8, Joyce Dillard** | 8-5 | Oil field and methane mitigation issues need to be addressed as the surrounding area has a history. Will they be to National Fire Protection Association NFPA standards? | The Foundation Report conducted for this project did not identify oil field or methane concerns within the project area. In addition, extensive excavation is not expected to be required for this project. All construction activities would be conducted in accordance with appropriate codes and standards, including those of the National Fire Protection Association, if applicable. | None |
| **Comment Letter 8, Joyce Dillard** | 8-6 | Consideration should be taken into the planned underground utility placement along the LA River. | Please see response to Comment Letter 8, Comment 8-3. Section 2.4.2 and *Table 2-10* in the DEIR/EA and revised FEIR/EA include a discussion of potential utility relocation requirements for the project. *Table 2-10* discusses whether the utility would need to be protected in place or relocated. | None |
| **Comment Letter 8, Joyce Dillard** | 8-7 | Scientific studies are needed to analyze and mitigate the Total Daily Maximum Loads TMDL. Proposition O projects in the area, which is local bond money for mitigation, should be considered. Without the science and with increased traffic, funding spent to mitigation would be wasted. Truck traffic traverses this bridge, yet the approach is more pedestrian friendly. Where are the fiscal impact reports of reduced commercial traffic? | Water quality and existing pollutant loads in the Los Angeles River are discussed in Section 2.9.3 of the DEIR/EA and revised FEIR/EA. As the revised FEIR/EA indicates, since the proposed project is not expected to increase traffic, no increase in pollutant load is expected. As a result, the proposed project would not cumulatively affect pollutant loads at the Los Angeles River, and no mitigation is required. The project would be designed following applicable roadway standards, and would safely accommodate vehicle traffic, bicyclists, and pedestrians. The project would not be expected to reduce commercial traffic in the area. | None |
| **Comment Letter 8, Joyce Dillard** | 8-8 | The area is known for gangs and public safety issues including budgeted personnel should be addressed. | The project would include improvements to an existing roadway and viaduct, and would not be expected to have any impacts relating to gang activity. The proposed pedestrian undercrossing would be lighted to maintain enhance safety for those crossing beneath the viaduct. As a whole, the project would be expected to increase vehicle, bicycle, and pedestrian access in this area. | None |
| **Comment Letter 8, Joyce Dillard** | 8-9 | Noise and audiology issues should be addressed by scientific studies. How will noise issues affect the children in these low-moderate census tract areas? | Section 2.3.3 of the DEIR/EA and revised FEIR/EA discusses impacts relating to low-income populations. No adverse impacts on these populations would be expected. Section 2.13.2 of the EIR/EA identifies sensitive receptors in the project area, including residential and recreation areas. As discussed in Section 2.13.3 of the EIR/EA temporary noise impacts from construction equipment are not expected to have an adverse effect on receptors at the Downey Recreation Center because exposure to noisy activities would be short-term and because the Downey Recreation Center's play facilities are at a lower elevation than the construction area. Operational noise impacts would only exceed thresholds at one location, the northeasterly portion of the Downey Recreation Center, and these impacts were determined not to be adverse. | None |
| **Comment Letter 8, Joyce Dillard** | 8-10 | Quicksand was known to be in the area during the early history of Los Angeles. Would that factor still remain a problem today? | Due to the development of the area, placement of artificial fill, and surface improvements, the conditions needed for quicksand to be present are unlikely. | None |
| **Comment Letter 8, Joyce Dillard** | 8-11 | Flooding occurred in the area in Los Angeles history. Is that measure being addressed? | A Location Hydraulic Study was prepared for the project in February 2009, and Section 2.9.2 and 2.9.3 of the revised FEIR/EA discuss the 100-Year floodplain and potential project impacts. In addition, a new figure has been added (*Figure 2-30*) to show the existing floodplain. The Location Hydraulic Study (see Appendix Q) determined that although a portion of the project area is within a 100-year floodplain, the proposed project would not result in a substantial risk related to flooding. | Sections 2.9.2 and 2.9.3, Figure 2-30, and Appendix Q |

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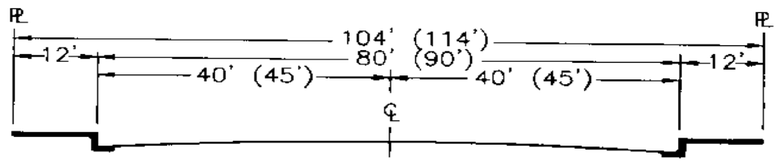
| **Comment Letter 8, Joyce Dillard** | 8-12 | Before an alternative is selected, the transportation hub system must be viewed at 100 years in the future along with the floodplain. Equestrian trails and other historic trails should be considered in the transportation hub. | As discussed in Section 2.2.1 of the DEIR/EA and revised FEIR/EA, the proposed project was designed to be consistent with the City's General Plan, existing community plans, and other specific plans for land use development and transportation systems in the project vicinity. These plans include policies that take into account the Los Angeles River floodplain and potential revitalization of this corridor. The proposed project would not impact any existing or planned equestrian trails or historic trails. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-1 | We have found that the project description is inconsistently presented in various sections of the EIR/EA and thereby renders assessment of impacts inadequate. | No suggestions are made; therefore no changes are made to the EIR/EA. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-2 | Absence of clear definition and depictions of Major Highway Class II is a major deficiency, and the road facility after the project appears not to comply with such available requirements. | Section 1.1.2 and 2.5.2 of the revised FEIR/EA include a description of a Major Highway – Class II, which is defined as a roadway with a width of 80 feet and 12-foot sidewalks on either side of traffic for a total width of 104 feet. A graphic has been included below to illustrate a typical section<br>  <br><br>Because of structural constraints, the proposed project section would not meet the definition of a Major Highway - Class II; however, the project would meet the objective of the proposed project, which is to repair and upgrade the viaduct to meet current seismic safety and design standards, address geometrical and design deficiencies of the viaduct and its adjoining approach roadways and improve travel for bicycles and pedestrians. | Sections 1.1, 1.3, and 2.5.2 |
| **Comment Letter 9, Dr. C.T Williams** | 9-3 | The EIR/EA indicates that railroad clearances are inadequate but does not indicate any activities and facilities. | While the existing viaduct clearance is less than the standard, raising the viaduct is not required because the widened structure would be connected to the existing bridge deck, thus the grandfathered substandard railroad clearance eliminates the need to raise the deck elevation. The purposed of the project is to correct existing geometrical and design deficiencies, and to address seismic vulnerability issues in order to increase the viaduct's SR to a minimum of 80. This can be accomplished by addressing the issues that resulted in an SR of 73.5, by providing adequate lane widths and roadway shoulders, tightening cable restrainers, and seismically retrofitting the viaduct. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-4 | Similarly, other elements are incomplete, including:<br>• Lack of origins/destinations of traffic<br>• Lack of any information regarding road-transit in the project vicinity<br>• Lack of land use and urban/transport planning information for-<br>o Cornfields-Arroyo Seco Plan (CASP),<br>o LA River Project,<br>o Prop-O/Downey Stormwater Project, | Section 2.5.2 of the DEIR/EA and revised FEIR/EA describes other traffic-contributing projects included in the analysis as required by LADOT. The proposed project alternatives would not be expected to increase or decrease vehicular trips or change traffic patterns in the study area; therefore, no discussion of trip origin and destination is warranted or required. Transit operations in the study area are described in Section 2.5.2. Land use and urban/ transportation planning information for potential projects in the study area are included in the analysis inasmuch as they are included in the 2035 SCAG Regional Transportation Plan (RTP). The 1percent growth factor applied to existing traffic volumes adequately accounts for potential growth in trips from potential projects that may be completed by 2015. | None |

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| | | o High Speed Rail Overpasses, and<br>o Figueroa/Riverside Drive and San Fernando Road and intersections projects<br>• Lack of information/integration of Railroad and I-5 noise contributions to the Project vicinity. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-5 | Although the project is focused on transportation, the preparers have provided only traffic flows in eight graphical depictions which have incomplete and inconsistent values and appear to be based on SCAG values rather than more locally generated flows. | Appendix M includes eight graphics that depict volumes from the SCAG RTP model for both 2008 and 2035. These volumes are provided for four different time periods. There are no inconsistent values. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-6 | Similarly the project description is not coordinated directly to safety, traffic flow, LOS, and other transportation concerns, needs, or deficiencies. | The project description in Chapter 1 has been revised and updated in the revised FEIR/EA, and meets the objective of the proposed project, which is to repair and upgrade the viaduct to meet current seismic safety and design standards, address geometrical and design deficiencies of the viaduct and its adjoining approach roadways and improve travel for bicyclists and pedestrians. This would require seismic retrofitting and widening of the viaduct. | Chapter 1 |
| **Comment Letter 9, Dr. C.T Williams** | 9-7 | Outreach appears to be inadequate and incomplete as the public participation was less than 20 people in two meetings and the notices and other documents did not include Korean which is important for the CD1 residents and the fact that the public meetings were held in the Korean Church, rather than the Downey Recreation facilities. | Caltrans and the City followed CEQA Guidelines Section 15087, which indicates that the NOA must be mailed to the last known name and address of organizations and individuals who have previously requested such notice in writing, and must also be distributed by one of the following procedures: published in an area newspaper; posted on-and off-site; or direct mail to owners and occupants of property near the project site.<br>Caltrans and the City also followed the President's Council on Environmental Quality (CEQ) NEPA Guidelines Section 1506.6, which indicates that agencies shall make diligent efforts to involve the public in preparing and implementing their NEPA procedures and provide public notice of NEPA-related hearings, public meetings, and the availability of environmental documents so as to inform those persons and agencies who may be interested or affected.<br>Caltrans and the City also met CEQA and NEPA public participation and noticing requirements concerning the availability of the DEIR/EA and public comment meeting notices. An NOP of the EIR/EA for the proposed project was prepared and circulated along with the IS for a 30-day review period that began on September 14, 2006, and closed on October 20, 2006. The NOP and invitation for a scoping meeting held on October 3, 2006, was mailed to all residents and businesses within 2,000 feet of the project site and was also published in the Los Angeles Times, Los Angeles Downtown News, La Opinion (Spanish) and Sing-Tao (a locally-based Chinese-language newspaper).<br>In addition, interpreters were available at the scoping meeting to communicate with non-English speaking members of the public in Spanish, Toy San and Cantonese. Copies of the NOP and IS were available for public viewing at Councilmember Ed Reyes Lincoln Heights Field Office, Lincoln Heights Branch Library, Chinatown Branch Library, and on the City's website.<br>The DEIR/EA was distributed to various state, regional, and local government agencies and interested organizations and individuals for a 45-day public review and comment period beginning on March 15, 2010, and closing on April 28, 2010. A Notice of Completion (NOC) was provided to the State Clearinghouse for distribution to responsible agencies. The NOA of the DEIR/EA was posted with the Los Angeles County Clerk, and this notice and an invitation to attend a Public Comment Meeting on April 15, 2010, was mailed to property owners and occupants within 2,000 feet of the project site, all those who attended the EIR/EA scoping meetings, all those who provided scoping comments, and all interested parties requesting notification of the availability of the document. Copies of the DEIR/EA were available for public viewing on the city website, Lincoln Heights Branch Library, Chinatown Branch Library, Councilmember Ed Reyes Lincoln Heights Field Office, City of Los Angeles Department of Public Works Bureau of Engineering and Los Angeles City Clerks Office, and on the City's website. | Appendix P |
| **Comment Letter 9, Dr. C.T Williams** | 9-8 | p.7\i/2. The proposed project is not developed to show the relationship of the major arterials (Major Highway Classes I and II) to the various nearby freeway ramps. Provide a thorough review and flow-chart relationships to the viaduct and any related freeways or access ramps. Provide a map of all | The relationship of the project to adjacent major arterials and nearby freeways ramps is beyond the scope of this EIR/EA. The traffic/transportation section of the EIR/EA analyzes the potential impacts and operational benefits of the project alternatives. These alternatives would not result in changes to local traffic circulation. | None |

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| | | "Major Highway, Classes I and II within 1000ft of the proposed project limits and indicate the degree of compliance of existing roadways with their current classifications and at their connection with the proposed project's improvements and compliance. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-9 | p.7\i/3. The Project description does not relate the project to deficiencies and Major Highway Class II requirements indicated elsewhere; Provide a table of seismicity deficiencies and project facility to meet such deficiencies. Provide a table of pedestrian and cycling deficiencies and project facility to meet such deficiencies. | Please see response to Comment Letter 9, Comment 9-2. Major Highway - Class II requirements have been clarified in the revised FEIR/EA. Section 1.2.1 and 2.2.2 of the DEIR/EA and FEIR/EA discuss the purpose and need for the project, including seismic, bicycle, and pedestrian deficiencies. | Sections 1.3.2 and 2.5.2 |
| **Comment Letter 9, Dr. C.T Williams** | 9-10 | p.7\i/4 (and 30\1-2/3, p.113\2-41/4) The EIR/EA does not provide the requirements, parameters/criteria, and deficiencies. The EIR/EA states a RR clearance deficiency but does not address it elsewhere which is important to the entire piling/pier development of the project. Provide a figure of existing, required, and proposed lanes, shoulders, and cycle lanes and deficiencies and project facilities to meet each deficiency. Provide a table of seismic and restraints deficiencies and project facilities to meet such deficiencies. Provide a table of railroad clearance deficiencies and project facilities to meet such deficiencies. Provide a table of pavement/sidewalk deficiencies for all collector and higher level streets and all project facilities to meet such deficiencies, street-by-street associated with the project. Provide detailed drawings of all lanes, shoulders, sidewalks, etc. for the project and at least 500ft beyond the project limits to demonstrate appropriate integration and facilities compliance between the project and existing roadway/ROW facilities. | Please see responses to Comment Letter 9, Comments 9-2 and 9-8. The EIR/EA describes the existing deficiencies throughout the document. Railroad clearance required by the California Public Utilities Commission and adopted by Metrolink is 25 feet; this clarification has been added to Section 1.2.2. Because the project would not involve the construction of a new structure, raising the bridge to meet the railroad clearance height is not required; therefore, the project would not affect the existing clearance. Detailed drawings of lanes, shoulders, sidewalks, etc. for the proposed project and surrounding areas are not available at this stage of design; they will be included in the final construction document package. Preliminary drawings showing the proposed layout for each alternative are included in Chapter 1 of the DEIR/EA and revised FEIR/EA. | Section 1.2.2 |
| **Comment Letter 9, Dr. C.T Williams** | 9-11 | p.7\i/5. The EIR/EA does not clearly define those measures which are repairs and which are upgrades and those which are required to achieve full compliance of a Major Highway, Class II. Provide a table of separated repairs, upgrades, and compliant measures for the Major Highway, Class II designation. Provide clear definition of measures to provide required railroad track clearance and any reasons why they may not be included. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-9, and 9-10. Section 1.2 of the DEIR/EA and revised FEIR/EA discusses the fact that the existing viaduct does not meet Major Highway - Class II standards. The project section would not meet the definition of a Major Highway - Class II, but would meet the meet the objective of the proposed project, which is to repair and upgrade the viaduct to meet current seismic safety and design standards, address geometrical and design deficiencies of the viaduct and its adjoining approach roadways and improve travel for bicycles and pedestrians. | Chapter 1 and Section 2.5.2 |
| **Comment Letter 9, Dr. C.T Williams** | 9-12 | p.8\ii/1 Other documents indicate that the ROW for a Major Highway Class II should be 106ft rather than 90ft; no sidewalk exist on southerly side of the viaduct so it is not widened, it will be added; no information is provided for the tributary roadways of the five-way junction to demonstrate that: 1) all other tributary roadways are compliant with their designation, 2) the junction itself has adequate lanes for the appropriate turning, and 3) the junction is compliant with all requirements for a Major Highway Class II junction. Provide facility to meet such deficiencies, street by street associated with the project. Provide detailed drawing demonstrating the mentioned facilities and those in compliance with the roadways designation. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-9, 9-10, and 9-11. Due to structural considerations, the Major Highway - Class II standard width of 104 feet would not be achieved with any viable project alternative. The status of other roadways in the area is beyond the scope of this EIR/EA. | Chapter 1 and Section 2.5.2 |
| **Comment Letter 9, Dr. C.T Williams** | 9-13 | p.11\v/ The EIR/EA is incomplete with little or nothing about the prospective land uses and direct conflict regarding single vs. dual lanes within the Cornfields-Arroyo Seco Plan. Provide thorough comparison to current land use proposals of CASP. Provide thorough comparison of project and CASP proposed Spring and Broadway and secondary streets. | Section 2.2.1 of the DEIR/EA and revised FEIR/EA addresses the compatibility of the proposed project with the Cornfields-Arroyo Seco Plan (CASP) and also includes a statement from the City of Los Angeles Planning Department explaining why the difference in lane configuration would not present a conflict between the proposed project and CASP. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-14 | p.12\vi/ Table S-1 Summary of Environmental Effects Traffic and Transportation "Potential Impact - Roadway Traffic Level of Service (LOS)" "BA1 Continued adverse impacts due to deterioration in Level of Service; operational deficiencies and traffic safety issues at the Viaduct and the surrounding roadways not addressed." The EIR/EA has not demonstrated | Please see responses to Comment Letter 9, Comments 9-6, 9-9, and 9-10. Section 1.2.2 of the DEIR/EA and revised FEIR/EA describes existing deficiencies on the viaduct and how the project would address these deficiencies. Sections 2.5.2 and 2.5.3 of the DEIR/EA and revised FEIR/EA describe existing and anticipated traffic levels and how the project would maintain or improve levels of service (LOS). The LOS analysis is provided to ensure that the project alternatives do not cause roadway operations to deteriorate; however, LOS | Chapter 1 |

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| | | "deterioration", has not specified the operational deficiencies, and the physical conditions generating specific safety issues within the expected "performance of LOSs C, D, and E. The EIR/EA has not indicated the criteria/acceptable levels for satisfactory performance of Peak and Non-Peak hour conditions. Provide table of clear and quantitative objective conditions, flows, operations, and facilities and related facilities in accordance with their street designations. Provide facility to meet such deficiencies, street by street associated with the project. | is not a performance measure for this project. | |
| **Comment Letter 9, Dr. C.T Williams** | 9-15 | p.12\vi/ BA2-4 The EIR/EA does not provide estimates of the "Flow" of traffic implied by "improvement" of LOS and latent demand. Provide objective, quantitative definitions of improvement in LOS and traffic flows Provide LOS and flows for Ave.18-19-20, Pasadena Ave., Broadway, Spring, Main, and Chavez bridges/viaducts and traffic model for current and full development of all bridges. | Please see response to Comment Letter 9, Comment 9-14. Sections 2.5.2 and 2.5.3 of the DEIR/EA and revised FEIR/EA describe existing and anticipated traffic levels and how the project would maintain or improve LOS. LOS analysis is provided to ensure that roadway operations are not negatively affected by the proposed alternatives. Roadway segment operations are not required by LADOT Traffic Study Policies and Procedures. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-16 | p.12\vi/ "No Build Alternative" "Deterioration in Level of Service; operational deficiencies and traffic safety issues at the Viaduct and the surrounding roadways not addressed." The EIR/EA has not demonstrated "deterioration", has not specified the operational deficiencies, and the physical conditions generating specific safety issues within the expected "performance of LOSs C, D, and E. The EIR/EA has not indicated the criteria/acceptable levels for satisfactory performance of Peak and Non-Peak hour conditions. The EIR/EA does not provide the relationship of the combined and competing LOSs, operational deficiencies and safety of the project corridor and surrounding roadways, including San Fernando Road, Ave 18, Ave 19, Pasadena, Broadway, and Main streets. Provide table of clear and quantitative objective conditions, flows, operations, and facilities and related facilities in accordance with their street designations. Provide facility to meet such deficiencies, street by street associated with the project. Provide Traffic Model for the four main arterial/highway segments (e.g., arterial/bridge: Figueroa-SanFernando/Broadway-Spring, Broadway/Spring-Broadway, and Mission/Chavez crossing the Los Angeles River and distribution of commuter traffic paralleling SR110, I-5, and I-10. | Please see Comment Letter 9, Comments 9-14 and 9-15. Section 2.5.2 of the DEIR/EA and revised FEIR/EA describes study intersections that were used for the traffic analysis. Section 2.5.3.1 of the DEIR/EA and revised FEIR/EA describes traffic modeling that was completed for the project. The project alternatives propose physical improvements to the North Spring Street Viaduct to address project needs described in Section 1.2.2. The implementation of the project would not result in additional trips on the roadway network or changes to local circulation; therefore, the analysis of operations on adjacent facilities is not warranted or required. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-17 | p.29/1-1\3 The EIR/EA does not provide simple table of comparison of all Major Highway Class II requirements, current configurations, and appropriate "gaps" or deficiencies. Provide specific facilities listing and drawings to meet such deficiencies, street by street associated with the project. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-9, 9-10, and 9-11. Chapter 1 of the DEIR/EA and revised FEIR/EA describes the definition of a Major Highway - Class II, the current viaduct and roadway facilities, existing deficiencies, and proposed improvements. Chapter 1 also provides figures showing the configurations of the proposed alternatives. | Chapter 1 |
| **Comment Letter 9, Dr. C.T Williams** | 9-18 | p.47\1-19/2 The EIR/EA does not indicate that this is for the East-Bound and how this measure relates to the requirements of Major Highway Class II for the roadway and intersection/junction and appropriate "gaps" or deficiencies that the measure fulfills. No specific requirements for Major Highway Class II has been provided for roadways and junctions/intersections. No definition or delineation of the remainder from all-most at different striping from 4-lane has not been provided. Provide traffic counts and modeling results requiring the extension – number of vehicles in storage and whether they are turning to Broadway or to Ave.18 or both. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-10, 9-11, and 9-12. Chapter 1 of the DEIR/EA and revised FEIR/EA describes existing deficiencies and how the project would address these deficiencies. The project would not increase the number of lanes, but would add sidewalks, bicycle lanes, and turn lanes. Section 2.5.3 of the DEIR/EA and revised FEIR/EA describes traffic modeling that was completed for the project; traffic counts are provided in Appendix M of the DEIR/EA and revised FEIR/EA. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-19 | p.71\1-43/2 The EIR/EA states that the flow would be increased while the LOS would improve (D becoming B) and appears to conflict with the concept of "not capacity enhancing". LOS does not directly relate to "safety". As indicated above, the EIR/EA does state: "Beneficial impacts…overall | Section 2.5.3 of the DEIR/EA and revised FEIR/EA describes traffic modeling that was completed for the project; traffic counts are provided in Appendix M of the DEIR/EA and revised FEIR/EA. The project would not increase the number of lanes; therefore, it would not be capacity increasing, and transportation systems management (TSM) and transportation demand management (TDM) alternatives are not required. | None |

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| | | improvement in the LOS and flow of traffic…at the viaduct and the surrounding roadways." Actual flows are required for estimation of LOSs and if actual flows increase through the project period and the LOS improves, capacity must be increased. Therefore TSM and TDM are required for the project as capacity appears to be improved based on improved LOS. Revise all capacity enhancing or enhancement statements, document and quantify traffic flows improvements and conduct TSM and TDM. Provide facilities to meet such deficiencies, street-by-street and junctions associated with the project. | Improvements to the roadway geometry would improve the flow of traffic over the viaduct, and intersection improvements, including the addition of turn lanes and signals (Wilhardt Street and North Spring Street), would be included in the project that would improve LOS. | |
| **Comment Letter 9, Dr. C.T Williams** | 9-20 | p.74\2-2/ Table 2-1 Environmental Factors Excluded From Discussion "Growth The project is primarily a safety project and is not capacity enhancing; therefore, it would not have the potential to affect growth in the area." Initial Study The EIR/EA clearly indicates that the project is for the improved traffic flows which generally relates to capacity and proposed changes local land uses will further increase trips originating from the area which thereby will generate traffic which will use the proposed "improvement", "enhancement". As indicated above, the EIR/EA states: "Beneficial impacts…overall improvement in the LOS and flow of traffic…at the viaduct and the surrounding roadways." "Primarily", "potential", and "growth" are not adequately defined and not quantified. Revise all statements regarding capacity enhancing or enhancement. Provide facilities to meet such deficiencies, street by street associated with the project. | Please see response to Comment Letter 9, Comment 9-19. The project would improve traffic flow, but would not be capacity increasing, and therefore would not induce growth. Chapter 3 of the DEIR/EA and revised FEIR/EA discusses the project's potential to induce growth. The project would accommodate existing and planned development in the area, and would meet the objective of the project, which is to repair and upgrade the viaduct to meet current seismic safety and design standards, address geometrical and design deficiencies of the viaduct and its adjoining approach roadways and improve travel for bicycles and pedestrians. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-21 | p.74\2-2/ Table 2-1 Hazardous The proposed project would be designed to meet current standards and avoid…additional design…roadway hazards, such as sharp curves, compromised line of sight, or turning…Features…radius of non-standard design. Initial Study. The EIR/EA does not provide graphical and quantitative definitions and locations for non-compliant facilities and "current standards" appropriate to the Major Highway Class II designation for roadways and junctions/intersections. Provide tables and drawings of existing non-compliant and compliant facilities, deficiencies, and propose street by street associated with the project. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-10, 9-11, 9-12, and 9-18. Response to Comment 9-2 includes a graphic of a Major Highway – Class II. Chapter 1 of the DEIR/EA and revised FEIR/EA describes existing deficiencies and how the project would address these deficiencies, and includes figures showing the proposed alternatives. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-22 | p.74\2-2/ Table 2-1 Mineral The proposed project…located within a fully developed urban area…designated by the California Geological Resources Survey as "existing urbanized areas."…no mineral extraction activities are proposed; therefore, impacts…resulting from the loss of mineral resources are not anticipated. The EIR/EA has not considered documents and investigations of the California Department of Oil, Gas, and Geothermal Resources (DOGGR) and producing, test and abandoned wells. Acquire, review, and assess known oil and gas resources known within the project vicinity. Review Caltrans SR710 North Extension, Geotechnical Report with regard to exploratory wells and gassy ground found north of the project site. | Information from the California Department of Oil, Gas, and Geothermal Resources (DOGGR) was reviewed regarding producing, test and abandoned wells (http://maps.conservation.ca.gov/doms/index.html).This information shows that there are no wells within the project area that would be affected by the project. The nearest well is located over 500 feet from the project area. Caltrans' State Route 710 (SR-710) North Extension, Geotechnical Report was reviewed with regard to exploratory wells and gassy ground found north of the project area. The City of Los Angeles Methane and Methane Buffer Zones map identified the area north of the project site as a methane area. The project area is not located within an area identified as a methane zone. Zone 1 of the SR-710 North Extension is located greater than 3,000 feet north of the project area. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-23 | p.75\2-3/1 The EIR/EA has not considered documents and investigations of the California Department of Oil, Gas, and Geothermal Resources (DOGGR), Bureau of Sanitation – Sewer Tunneling along the LA River corridor, and those of Caltrans District 7 for the SR-710 North Extension (Tunnel) which includes Zone 1 geotechnical report. Provide relevant summaries of technical information which supports the assessment and mitigation measures of the EIR/EA. Provide review of documents and information from DOGGR, Bureau of Sanitation, and Caltrans geotechnical studies. | Section 2.10 of the DEIR/EA and revised FEIR/EA discusses results of the Foundation Report completed for the proposed project. DOGGR and SR-710 maps and reports were also reviewed, and no information was contained in these reports that identifies new significant impacts, or suggests that the severity of impacts identified in the DEIR/EA would be greater or that recommended mitigation measures should be modified. | None |

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| **Comment Letter 9, Dr. C.T Williams** | 9-24 | p.75\2-3/2 The EIR/EA has not provided a clear, quantitative description (specifications) for the Major Highway, Class II and those for other affected roadways, rights-of-way, and junctions/intersections and how they relate to all elements of the proposed project. Provide review of quantitative descriptions, specifications, and typical sections for all affected roadways of the proposed project and related up-/down-flow roadways. Provide relevant summaries of regulatory requirements, design standards and specifications, UBC, etc. which relates to the assessment and mitigation measures of the EIR/EA. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-10, 9-11, 9-12, and 9-18. Response to Comment 9-2 includes a graphic of a Major Highway – Class II. Chapter 1 of the DEIR/EA and revised FEIR/EA describes existing deficiencies and how the project would address these deficiencies, and includes figures showing the proposed alternatives. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-25 | p.81\2-9/1 The EIR/EA does not coordinate with current consideration of the CASP which includes the entirety of the proposed project. The Broadway/Pasadena/Main Crossings of the I-5 represent the eastern “Gateway(s)” to the CASP. Provide review of the compliance of the CASP street network with existing physical facilities. Provide rationale for retaining the Major Highway designation for Spring Street. | Please see response to Comment Letter 9, Comment 9-13. Rationale for the designation of North Spring Street is beyond the scope of the DEIR/EA and revised FEIR/EA. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-26 | p.81\2-9/1 The EIR/EA does not consider Draft CASP that is currently available and prospective increases in trip generation. Consideration of only the SCAG traffic flows does not reflect potential impacts of the CASP project on the safety, LOS, and traffic flows of the proposed project, in addition to plans for specific physical facilities. Provide review of quantitative descriptions, specifications, and typical sections for all affected roadways and junctions/intersection of the proposed project and related up-/down-flow roadways within the CASP area and how these may influence the adequacy of the proposed project to meet its goals and deficiencies. | The CASP project volumes are included in the SCAG RTP model, which was used in the analysis presented in the DEIR/EA and revised FEIR/EA. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-27 | p.81\2-9/2 The EIR/EA does not provide clear, graphical comparison of the CASP roadways and those in proposed project. The statement is incorrect that early implementation of the CASP roadway scheme would be incompatible with the proposed project and would require filling or separation of one-lane each way for pedestrian and cycling uses. Provide review of quantitative descriptions, specifications, and typical sections for all project and CASP affected roadways of the proposed project and related up-/down-flow roadways. Provide rationale for retaining the Major Highway designation for North Spring Street which appears to conflict with the expressed plan of the CASP. | Please see response to Comment Letter 9, Comments 9-13 and 9-25. The proposed project would be consistent with the goals of the CASP. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-28 | p.104\2-32/3 The EIR/EA does not discuss or consider current Proposition O plans and improvements for storm drainage in both the Downey Recreation areas and land acquisition of additional areas on the southerly side of the viaduct. The project appears not to consider the Prop O project and connection of the improve Viaduct to the stormwater treatment facilities to be built. Provide review of quantitative and graphical descriptions, specifications, and typical sections for all affected storm drains and inlets in the roadways of the proposed project and related up-/down-flow roadways. | Section 2.4.2 of the DEIR/EA and revised FEIR/EA discusses potential impacts to utilities, including drainages in the project area. Section 2.9.3 of the DEIR/EA and revised FEIR/EA discusses storm water runoff and drainage improvements. The project would not be adversely affected by storm drainage improvement projects such as those funded under Proposition O; rather, reduced stormwater would reduce flows affecting bridge construction and operation. As discussed in the DEIR/EA and revised FEIR/EA, all utility relocations and improvements would be coordinated with the appropriate utility companies and agencies to ensure that they are compatible with other parts of the utility system. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-29 | p.113\2-41/2 The EIR/EA does not reflect the CASP “intended use and function” of North Spring Street and thereby conflict with the basic concepts of the two federal funding sources. No quantitative or graphical definition and delineation is provided for “upgrade” of the bridge or viaduct. Similarly no “current design standards” are provided in graphical and quantitative manners which should be consistent with the local, more limited CASP designations rather than the more general “Major Highway” designation. Revise project to reflect the CASP conditions, functions, and use as pedestrian/cyclists corridors to the LA River, rather than a commuter | See responses to Comment Letter 9, Comments 9-11, 9-13, 9-25, and 9-27. Chapter 1 of the DEIR/EA and revised FEIR/EA includes a description and figures showing the proposed project alternatives. | Chapter 1 |

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| | | thoroughfare to downtown through CASP area. Provide review of quantitative descriptions, specifications, and typical sections for all affected roadways of the proposed project and related up-/down-flow roadways. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-30 | p.113\2-41/3 As indicated above, the CASP provides a system consistent with every effort to minimize the conflicts between the various modes of transport through the CASP area. Review and revise the project descriptions, specifications, and typical sections for all affected roadways to be in accord with the referenced text section. | Please see responses to Comment Letter 9, Comments 9-11, 9-13, 9-25, 9-27, and 9-29. The proposed roadway improvements have been designed to meet applicable guidelines, and the vehicle lane widths, sidewalks, and bike lanes would be of sufficient width to safely accommodate these modes of travel. Chapters 1 and 2 of the DEIR/EA and revised FEIR/EA discuss how each of these modes would be accommodated. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-31 | p.114\2-42/3 The EIR/EA does not provide quantitative, physical, and graphical definitions and depictions of the requirements for Major Highway Class II, and a comparison of existing conditions and gaps/deficiencies between the requirements and current conditions. As ADT and implied Peak Hour flows are involved in the Major Highway definitions, functional conditions must also be included. Provide a single tabular quantitative descriptions, specifications, and typical sections and graphical depiction of the same for all affected roadways of the proposed project and related up-/down-flow roadways. | Please see responses to Comment Letter 9, Comments 9-2, 9-6, 9-8, 9-10, 9-11, 9-12, 9-18, and 9-24. Response to Comment 9-2 includes a graphic of a Major Highway – Class II. Chapter 1 of the DEIR/EA and revised FEIR/EA describes existing deficiencies and how the project would address these deficiencies, and includes figures showing the proposed alternatives. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-32 | p.115\2-43/3 The EIR/EA includes in the project by these references both Ave.18 and Pasadena Ave. but does not provide a thorough review the of several corridors (Sa Fernando, Figueroa, Pasadena, and Broadway which come to the Broadway/Spring Couplet bottlenecks to NE downtown and their relationship to the proposed project. Provide review of quantitative descriptions, specifications, and typical sections for all affected roadways of the proposed project and related up-/down-flow roadways. | Please see Comment Letter 9, Comments 9-14, 9-15, and 9-16. Traffic counts from these corridors were included in the traffic analysis on which discussion in the DEIR/EA and revised FEIR/EA. Section 2.5.2 of the DEIR/EA and revised FEIR/EA describes study intersections that were used for the traffic analysis. Section 2.5.3 of the DEIR/EA and revised FEIR/EA describes traffic modeling that was completed for the project, and Appendix M includes further details on the traffic analysis. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-33 | p.116\2-44/3 The EIR/EIA does not provide any physical, graphic, or quantitative descriptions and parameters for the most important traffic intersection - five-segment intersection of Ave.18/Broadway/Spring and corridors/segments of the approach streets in downtown and CASP area/Cypress Park/Lincoln Heights. No information is provided for mass transit, = buses, for the intersection and the viaduct and how the project will support transit systems and routes to and through the LA River Park corridor. Provide physical and functional descriptions of road-transit system passing through the project area and vicinity. | Chapter 1 of the DEIR/EA and revised FEIR/EA includes descriptions and figures depicting the proposed improvements, which would terminate at the 5-point intersection of North Spring Street, Avenue 18, and North Broadway. No improvements are proposed along the corridors/segments of the approach streets in downtown and CASP area/Cypress Park/Lincoln Heights. Section 2.5.2 of the DEIR/EA and revised FEIR/EA describes existing transit facilities, and Section 2.5.3 describes project impacts on transit services. The project would have temporary impacts on bus service due to construction activities; however, following construction improved operation in the area would accommodate and likely enhance transit services in the area. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-34 | p.117\2-45/2 The EIR/EIA does not clearly indicate that the LOSs are derived from an out-dated and generalized traffic model from SCAG which does not include numerous local changes in land uses, pedestrian uses, and transit improvements and along with changes in the major corridors. The EIR/EA does not provide any confirming traffic counts to support/confirm the generalized model results. Provide basis for and the calculations of the LOS for the road segments and for the Ave.18 five-legged intersection. Provide relations between the proposed project measures and how they change the capacity of the roadway in order to achieve the changes in LOS. | Please see responses to Comment Letter 8, Comment 8-12, and Comment Letter 9, Comments 9-13, 9-14, 9-15, 9-16, 9-19, 9-20, 9-25, 9-26, 9-27, 9-29, and 9-33. Section 2.5.3 of the DEIR/EA and revised FEIR/EA indicates that existing traffic data was taken from the SCAG 2008 RTP model, and that other data was taken from field observations and evaluations. As discussed in Section 2.2.1 of the DEIR/EA and revised FEIR/EA, the proposed project was designed to be consistent with the City's General Plan, existing community plans, and other specific plans for land use development and transportation systems in the project vicinity. The project would not increase the number of lanes; therefore, it would not be capacity increasing. Improvements to the roadway geometry would improve the flow of traffic over the viaduct, and intersection improvements, including the addition of turn lanes and signals (Wilhardt Street and North Spring Street), would be included in the project that would improve LOS. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-35 | p.122\2-50/6 The EIR/EIA does not clearly define: Impacts, Cumulative, Some operational deficiencies, Improve traffic circulation, Overall improvement, Project contributions, and Considered. The EIR/EIA does not clearly document the cumulative transportation changes for the CASP area, including the proposed project and other projects in the vicinity (e.g., Figueroa/Riverside intersection) and current roadway networks (Appendix M) are derived from an out-dated and generalized traffic model which does | Please see responses to Comment Letter 9, Comments 9-4, 9-5, 9-13, 9-15, 9-16, 9-20, 9-25, 9-26, 9-27, 9-29, 9-30, 9-32, and 9-34. The project would be consistent with other transportation plans in the area, and would improve traffic circulation in the area. These impacts would be beneficial, but would still contribute to the cumulative transportation setting; therefore, it is appropriate that they be included in the cumulative discussion. | None |

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| | | not include numerous local changes in land uses, pedestrian uses, and transit improvements and along with changes in the major corridors. The EIR/EA does not provide calculations in Appendix M and derived hourly flows (<1000 vphr) do not seem consistent with LOSs. The section appears to be a justification for the project benefits while cumulative impacts are supposed to be for adverse impacts. Provide all traffic flows - sources, documents, and calculations for the values provided. Provide a transport functional model for the traffic regime west of I-5, north of Main Street, and south of I-5/SR110 and values for AM and PM peaks and phased LOSs for segments. Provide relationships between project area operational deficiencies, project measures and contributions, and overall improvements. Provide LOS for major intersections within the same area as mentioned above. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-36 | p.123\2-51/3 The EIR/EIA does not provide accepted definition of mitigation: measures to reduce to less than significant those effects established to be significant without mitigation. Assignment of mitigation assumes that the effect is significant and thereby must be reflected in the assessment of impacts and the initial study. Standard operations procedures and measures required by regulatory compliance cannot be used as mitigations as these measures are required and would not be undertaken on a voluntary basis. Provide a single table of each sectoral impacts, significant impacts, mitigation measures taken to change effects. Provide a clear method of mitigation, measurement of mitigation effects and modifications if required, monitoring of mitigation implementation, and reporting of mitigations for the neighborhoods and city representatives. | Mitigation measures included in this project are described in Table S-2 of the Executive Summary and in the last subsection of each section in Sections 2.2 through 2.14. As required in a joint NEPA/CEQA document, significance determinations and appropriate mitigation measures are discussed in Chapter 3 of the DEIR/EA and revised FEIR/EA. Standard measures required as part of regulatory compliance are discussed in Chapter 2, but are not considered to be mitigation. A Mitigation Monitoring Plan is included in Appendix E of the revised FEIR/EA, and includes only mitigation measures. | Executive Summary, Chapter 2, and Chapter 3 |
| **Comment Letter 9, Dr. C.T Williams** | 9-37 | p.177\2-106/2.6.5 Cumulative Impacts The EIR/EIA does not clearly define: Cumulative, Some operational deficiencies, Improve traffic circulation, Overall improvement, Project contributions, and Considered. The EIR/EIA does not clearly document the cumulative transportation changes for the CASP area, including the proposed project and other projects in the vicinity (e.g., Figueroa/Riverside intersection) and current roadway networks (Appendix M) are derived from an out-dated and generalized traffic model which does not include numerous local changes in land uses, pedestrian uses, and transit improvements and along with changes in the major corridors. The EIR/EA does not provide calculations in Appendix M and derived hourly flows (<1000 vphr) do not seem consistent with LOSs. The section appears to be a justification for the project benefits while cumulative impacts are supposed to be for adverse impacts. Provide all traffic flows - sources, documents, and calculations for the values provided. Provide a transport functional model for the traffic regime west of I-5, north of Main Street, and south of I-5/SR110 and values for AM and PM peaks and phased LOSs for segments. Provide relationships between project area operational deficiencies, project measures and contributions, and overall improvements. Provide LOS for major intersections within the same area as mentioned above. | Please see response to Comment Letter 9, Comment 9-35 (same comment). | None |
| **Comment Letter 8, Dr. C.T Williams** | 9-38 | p.177\2-107/2.6.5 Cumulative Impacts The EIR/EIA does not clearly define: Cumulative, closely resemble, adverse cumulative…effects, designed to match, and considerable. The EIR/EIA does not clearly document the cumulative visual impacts for the "City's bridge program" and CASP area (from the Riverside Drive Bridge south to and including the Main Street Bridge, including the proposed project and other projects in the vicinity. No assessment is provided for the cumulative impacts for the bridge program and for the CASP area, east of Cornfields and west of I-5.r corridors. The EIR/EA does not provide the views from the proposed LA River system and | Section 2.6.5 of the DEIR/EA and revised FEIR/EA includes a discussion of cumulative visual impacts. These impacts were determined to be cumulatively beneficial, based on the fact that the proposed project, in conjunction with other projects in the area, would likely have a positive visual impact in the long term in the context of urban renewal. Section 2.6.2 of the DEIR/EA and revised FEIR/EA discuss keys views, and Section 2.6.3 discusses visual impacts resulting from the proposed project, including shading effects. Future views from the Los Angeles River are not included because they are not existing views, and the project would not result in a change in these future views. Additionally, the bridge would not be raised as part of this project, and widening the bridge would not be expected to result in a sense of confinement beyond what would be experienced with the existing structure. Views of the bridge from surrounding properties are discussed in this | None |

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| | | does not show how the widening of the bridge and perhaps raising the bridge will affect shadows and sense of confinement. The EIR/EA (section and appendix) does not provide visual assessment for the Downey area south of the bridge and the recently acquired Prop O facilities. The section appears to be a justification for the project benefits while cumulative impacts are supposed to be for adverse impacts such as that on the Downey recreational facilities north and south of the viaduct. Provide all major visual assessment for City's Bridge Program | section; Typical View #4 and Key View #6 are both located at the Downey Recreation Center south of the viaduct. Because the project would contribute to the cumulative visual setting, it is appropriate that they be included in the cumulative discussion. | |
| **Comment Letter 8, Dr. C.T Williams** | 9-39 | p.177-78\2-106/5 - 2-107/2 2.6.6 Avoidance, Minimization, and/or Mitigation Measures. The EIR/EIA does not provide accepted definition of mitigation: would be, should be, and shall. Assignment of mitigation assumes that the effect is significant and thereby must be reflected in the assessment of impacts and the initial study. Standard operations procedures and measures required by regulatory compliance cannot be used as mitigations as these measures are required and would not be undertaken on a voluntary basis. The EIR/EA raises the issue of lighting standards but does not provide state, federal, or international street surface lamination (e.g., lumens). Provide a clear definition as to whether mitigation measures are specifically included or not included. Provide a clear method of mitigation, measurement of mitigation effects and modifications if required, monitoring of mitigation implementation, and reporting of mitigations for the neighborhoods and city representatives. Provide a single table of each sectoral impacts, significant impacts, mitigation measures taken to change effects. | See response to Comment Letter 9, Comment 9-37. | None |
| **Comment Letter 8, Dr. C.T Williams** | 9-40 | p.247\2-175/4 2.9 Hydrology, 2.9.1 Regulatory Setting, Hydrology and Floodplain. The EIR/EIA does not provide any description of the "base floodplain" (presumably the 100-year/500-year flood zones) within the area and its current limits. The EIR/EA refers to construction of bridge piers but does not provide locations and designs of piers and their relationship to the floodplain limits. Widening of the bridge and increased solid volumes within the flood plain would affect the floodplain limits and thereby encroachment. CASP development would also significantly add to the solid volumes within the flood zone and thereby alter the flood levels and flow patterns. Provide physical graphic depiction of the base floodplain and any encroachments before and after the project. | A Hydraulic Location Study was completed for the project in February 2011 (see Appendix Q), and a discussion of the existing floodplain was added in Section 2.9.2 of the revised FEIR/EA. *Figure 2-30* was also added to this section to illustrate that the proposed project area is partially within the 100-year floodplain. Discussion was added to Section 2.9.3 of the revised FEIR/EA regarding project impacts to the floodplain. It was determined that extension of the viaduct piers would not substantially affect the base flood elevation, and would not result in an increased flood risk. The piers would not need to be widened as part of the proposed project. | Sections 2.9.2 and 2.9.3 |
| **Comment Letter 8, Dr. C.T Williams** | 9-41 | p.264\2-192/4 The EIR/EIA does not provide any description of the 100-year/500-year flood zones within the area or the "small portion" of the project area in the 100-year zone. Widening of the bridge and increased solid volumes within the flood plain would affect the 100-year flood levels and flows. Development of the CASP would also significantly add to the solid volumes within the flood zone and thereby alter the flood levels and flow patterns. The EIR/EA does not provide information regarding the floodplain and flood hazard area downstream of the project and Spring Street and does not assess impacts of floodplain changes on flood levels. Provide physical graphic depiction of the 100year flood zones before and after the project. Provide an estimated 100year flood zone with the completion of CASP development and the proposed project. | Please see response to Comment Letter 9, Comment 9-40. | None |
| **Comment Letter 8, Dr. C.T Williams** | 9-42 | p.271\2-199/2 | Please see response to Comment Letter 9, Comment 9-23. No information was contained in these reports that identifies new significant impacts, or suggests that the severity of impacts identified in the DEIR/EA would be greater or that recommended mitigation measures should be modified. | None |

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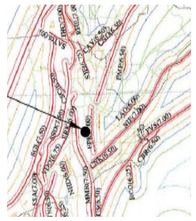
| | | <br>The EIR/EIA does not reflect the seismicity and faulting investigations conducted for Caltrans in the Geotechnical Investigations for the SR-710 North Extension Project in Zone 1, one mile north of the project location and for the LADPW/Bur.of Sanitation for sewer tunneling along the LA River Valley. Acquire, review, and re-assess currently available Caltrans and LADPW seismicity and faulting information within the project vicinity. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-43 | p.272\2-200/4  <br>The EIR/EIA does not reflect the seismicity and faulting investigations conducted for Caltrans in the Geotechnical Investigations for the SR-710 North Extension Project in Zone 1, one mile north of the project location and for the LADPW/Bur.of Sanitation for sewer tunneling along the LA River Valley. Acquire, review, and re-assess currently available Caltrans and LADPW seismicity and faulting information within the project vicinity. | Please see response to Comment Letter 9, Comment 9-23. No information was contained in these reports that identifies new significant impacts, or suggests that the severity of impacts identified in the DEIR/EA would be greater or that recommended mitigation measures should be modified. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-44 | p.278\2-206/3 The EIR/EIA does not provide publicly the geotechnical reports for the project in order to assess the potential for differential movements during seismic activities, especially given the presence of the railroad and concrete channel of the LA River. The EIR/EA does not provide information developed by the LADPW/Bur.San. for the Downey stormwater facilities immediately along the south side of the project area. Acquire, review, and re-assess currently available LADPW geotechnical information within the project vicinity. Provide depths to bedrock (e.g., Puente Formation, below alluvium and fills) for the piers and bridge and viaduct structures. Provide adequate summary of geotechnical information as appendix rather than requiring public to visit Caltrans. | The Foundation Report used to prepare Section 2.10 of the DEIR/EA and revised FEIR/EA is available through the City, as noted on the first page of the DEIR/EA. The information from the report is summarized in Section 2.10 of the DEIR/EA and revised FEIR/EA. The existing and proposed foundations would bear on alluvium and would not encounter bedrock. The Downey stormwater facilities are not relevant because a site-specific analysis was performed for the proposed project. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-45 | p.278\2-206/4 The EIR/EIA does not provide publicly the geotechnical reports for the project in order to assess the potential for differential movements during seismic activities, especially given the presence of the railroad and concrete channel of the LA River. The EIR/EA does not reflect | Please see response to Comment Letter 9, Comment 9-44. | None |

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| | | the presence of 150 years of “fills” along this section of the LA River rather than “soils” The EIR/EA does not provide information developed by the LADPW/Bur.San. for the Downey stormwater facilities immediately along the south side of the project area. Acquire, review, and re-assess currently available LADPW geotechnical information within the project vicinity. Provide depths to bedrock (e.g., Puente Formation, below alluvium and fills) for the piers and bridge and viaduct structures. Provide adequate summary of geotechnical information as appendix rather than requiring public to visit Caltrans. | | |
| **Comment Letter 9, Dr. C.T Williams** | 9-46 | p.279\2-207/3 The EIR/EA does not have documentation to justify the use of “never” and does not delineate the “immediate” vicinity. Most oil and gas wells are not visible in urban environments; as in Chinatown and along Santa Fe Ave. near Metro Yards. Directional drilling allows a well head surface facilities to be a few miles away from the well toe/heel for exploiting for oil and gas. No access to or review of DOGGR records regarding the areas is indicated by the EIR/EA. No information is provided regarding the bedrock and alluvium and contaminated groundwater encountered during sewer tunneling and Union Station construction Provide revision of “never” and “immediate” and include quantitative measures and definitions rather than non-objective conjectures. Acquire all relevant DOGGR and Caltrans SR710 information for surface, downhole, exploratory, abandoned, and idled wells in the project “vicinity”. | Please see response to Comment Letter 9, Comment 9-23. No information was contained in these reports that identifies new significant impacts, or suggests that the severity of impacts identified in the DEIR/EA would be greater or that recommended mitigation measures should be modified. Potential for encountering contaminated groundwater is discussed in Section 2.11.2 of the DEIR/EA and revised FEIR/EA. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-47 | p.279\2-207/4 The EIR/EA does not define use of “significant” and “area occupied”. No access to or review of DOGGR records regarding the areas is indicated by the EIR/EA. No information is provided regarding the bedrock and alluvium and contaminated groundwater encountered during sewer tunneling and Union Station construction. Various projects and observations of LA River weep-structures clearly indicate discharges of methane and hydrogen sulfide gases from the underlying bedrock. Provide revision of “significant” and “area” vs “vicinity” or “location” or include quantitative measures and definitions rather than non-objective conjectures. Acquire all relevant DOGGR and Caltrans SR710 information for surface, downhole, exploratory, abandoned, and idled wells in the project “area” and production. | Please see responses to Comment Letter 9, Comments 9-23 and 9-46. A Foundation Report was completed for the project and referenced for completion of Section 2.10 of the DEIR/EA and revised FEIR/EA. All uses of “significant” in Section 2.10 have been changed to “substantial”, which is intended in these instances to mean “sizeable” or “considerable.” The definitions of “area occupied,” “area”, “vicinity”, and “location” used in the EIR/EA are the same as they are applied in common use. | Section 2.10 |
| **Comment Letter 9, Dr. C.T Williams** | 9-48 | p.281\2-209/1 The EIR/EIA does not clearly define: cumulative, improve, stability, meet, current standards, etc. The EIR/EIA does not clearly document the cumulative retrofits, improvements, seismic stability, and current standards. No assessment is provided for the cumulative impacts for the project based on blind faults beneath the project, known surface faults in Lincoln Heights and Elysian Park. Provide geotechnical and specific seismic response analyses and assessment for the viaduct and bridge piers. Provide applicable standards and specifications to achieve such standards within the local geotechnical and structured context of the project. | Chapter 1 and Section 2.10.3.2 discuss the seismic retrofit elements that would be included as part of the proposed project, and the fact that these improvements would be conducted in accordance with current building standards. The purpose of the project is to seismically retrofit the viaduct, and the proposed project, in conjunction with other seismic improvement projects under the jurisdiction of the City would reduce cumulative impacts of seismic events. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-49 | p.281\2-209/2 The EIR/EIA does not provide the City and State standards and applicable UBC requirements and how they relate to the proposed project and the geotechnical and seismic context of the project. Provide a clear application of the relevant standards and requirements and how they relate to the project and its geotechnical and seismic context. Provide a clear method of mitigation, measurement of mitigation effects and modifications, monitoring of mitigation implementation, and reporting of mitigations for the neighborhoods and city representatives. | Section 2.1.2 of the DEIR/EA and revised FEIR/EA summarizes the information governing laws, regulations, and standards. The structural design, including geotechnical study and seismic considerations of the proposed project, complies with Caltrans’ Bridge Specifications, which is the California version of AASHTO bridge design standards with more stringent seismic requirements. The Uniform Building Code (UBC), which governs building design, would not be applicable to bridge design. Mitigation measures are clearly identified in Table S-2, and a Mitigation Monitoring Plan is included in Appendix E of the DEIR/EA and revised FEIR/EA. | None |

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| **Comment Letter 9, Dr. C.T Williams** | 9-50 | p.283\2-211/ 2.11 Hazardous Waste/Materials. The EIR/EIA does not provide information regarding any sampling or testing of the existing viaduct structure, prospective structures to be demolished, and for the soils of the railroad rights-of-way and thereby conjectures in this section are not objective nor quantified. Provide representative sampling and test results of recognized potential sources which could be involved in the project. | Section 2.11 of the revised FEIR/EA has been revised to include information on asbestos-containing materials. Section 2.11.6 of the FEIR/EA includes discussion of the fact that the contractor would conduct a pre-construction survey of the proposed project sites and locations for the presence of actionable levels of hazardous materials. | Section 2.11 |
| **Comment Letter 9, Dr. C.T Williams** | 9-51 | p.285\2-213/1 The EIR/EIA does not provide information regarding any sampling or testing of the existing viaduct structure, prospective structures to be demolished, and for the soils of the railroad rights-of-way and thereby conjectures in this section are not objective nor quantified. The Project objectives are not defined elsewhere and the reference herein is unrelated to the project. Provide all "project objectives" as part of the Project Description. Provide representative sampling and test results of recognized potential sources which could be involved in the project. | Please see response to Comment Letter 9, Comment 9-50. Project objectives are described in Section 1.2 of the DEIR/EA and revised FEIR/EA. Results of the Hazardous Materials Study are included in Appendix J of the DEIR/EA and revised FEIR/EA. Testing and sampling has not been conducted to date, but would be conducted prior to construction. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-52 | p.286\2-214/4 The EIR/EA does not have supporting documentation or summaries in appendices for public review and does not include references to the recent Caltrans SR710 and the LADPW sewer tunneling investigations including the LA River area between SR2 and SR110. No definitions and no basis is provided for "study area" or assignment of low and medium potential for contaminated groundwater. Provide revision of "low to medium" and "project study area" and include quantitative measures and definitions rather than non-objective conjectures. Acquire all relevant LADPW and Caltrans SR710 information for surface, downhole, exploratory, abandoned, and idled wells in the project "vicinity". | Please see response to Comment Letter 9, Comments 9-23, 9-44, and 9-51. The Hazardous Materials Study is included in the DEIR/EA and revised FEIR/EA as Appendix J. Previous studies mentioned were reviewed, and no information was contained in these reports that identifies new significant impacts, or suggests that the severity of impacts identified in the DEIR/EA would be greater or that recommended mitigation measures should be modified. The project area is described in Chapter 1 and is shown in *Figure 1-3*. In addition, the project study area is identified in Section 1.0 of the Hazardous Materials Study, and is depicted in Figure 2 of the study. The limits of the study are further described in Section 2.0 of the Hazardous Materials Study. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-53 | p.286, 291\2-214/5 The EIR/EA does not have supporting documentation or summaries in appendices for public review and does not include references to the recent Caltrans SR710 and the LADPW sewer tunneling investigations including the LA River area between SR2 and SR110. No definitions and no basis is provided for medium potential vs low-medium for contaminated groundwater. Common definition of "encounter" is not consistent with a driven pile not encountering groundwater when driven below the groundwater level. Common definition of "displacement" is not consistent with a driven pile penetration into the groundwater when driven below the groundwater level. Common definition of "displacement" is not consistent with a driven pile not being placed into saturated alluvium when driven below the groundwater level; sufficient driven piles into the saturated alluvium and their compaction due to friction against the alluvium would in fact interfere with the normal or current movement of groundwater through the saturated alluvium. Provide revision of "medium" and "project study area" and include quantitative measures and definitions rather than non-objective conjectures. Acquire, review, and reassess impacts based on all relevant LADPW and Caltrans SR710 information. | Please see response to Comment Letter 9, Comments 9-23, 9-44, 9-51, and 9-52. "Low" or "medium" potential is a qualitative term used based on the information available because the potential is not quantifiable. "Encounter" is defined as "to come across/upon", and is used in this way to describe the potential to come across groundwater when driving piles. "Displacement" refers to water rising to the surface if piles are driven to groundwater level. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-54 | p.288\2-216/1 Most oil and gas wells are not visible in urban environments; as in Chinatown and along Santa Fe Ave. near Metro Yards. Directional drilling allows a well head surface facilities to be a few miles away from the well toe/heel for exploiting for oil and gas. No access to or review of DOGGR records regarding the areas. No information regarding the bedrock and alluvium and contaminated groundwater encountered during sewer tunneling and Union Station construction. Acquire, review, and reassess impacts based on all relevant information for surface, downhole, abandoned, and idled wells in the project vicinity. | Please see responses to Comment Letter 9, Comments 9-22, 2-23, and 2-46. | None |

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| **Comment Letter 9, Dr. C.T Williams** | 9-55 | p.292\2-220/3 The EIR/EIA does not provide information regarding any sampling or testing of the existing viaduct structure, prospective structures to be demolished, and for the soils of the railroad rights-of-way and thereby conjectures in this section are not objective nor quantified. The EIR/EIA does not provide accepted definition of mitigation: would be, should be, and shall. Assignment of mitigation assumes that the effect is significant and thereby must be reflected in the assessment of impacts and the initial study. Standard operations procedures and measures required by regulatory compliance cannot be used as mitigations as these measures are required and would not be undertaken on a voluntary basis. The EIR/EA raises the issue of lighting standards but does not provide state, federal, or international street surface lamination (e.g., lumens). Provide a clear definition as to whether mitigation measures are specifically included or not included. Provide a clear method of mitigation, measurement of mitigation effects and modifications if required, monitoring of mitigation implementation, and reporting of mitigations for the neighborhoods and city representatives. Provide a single table of each sectoral impacts, significant impacts, mitigation measures taken to change effects. Provide representative sampling and test results of recognized potential sources which could be involved in the project. | Please see responses to Comment Letter 9, Comments 9-36, 9-39, 9-50, and 9-51. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-56 | p.345\3-1/1 The EIR/EIA does not provide information regarding pre-construction measures and documentation of existing conditions and quantified conditions, and thereby many assessments and assignment of significance become conjectures are not objective nor quantified. The EIR/EIA does not provide accepted definition of mitigation: would be, should be, and shall. Assignment of mitigation assumes that the effect is significant and thereby must be reflected in the assessment of impacts and the initial study. Standard operations procedures and measures required by regulatory compliance cannot be used as mitigations as these measures are required and would not be undertaken on a voluntary basis. The EIR/EA raises the issue of lighting standards but does not provide state, federal, or international street surface lamination (e.g., lumens). Provide a clear definition as to whether mitigation measures are specifically included or not included. | Please see responses to Comment Letter 9, Comments 9-36, 9-39, 9-50, 9-51, and 9-52 .Existing conditions are described in the DEIR/EA and FEIR/EA in Sections 2.2 through 2.14. The project would not substantially modify the existing lighting; therefore, no impacts are expected. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-57 | p.354\3-10/4 The EIR/EIA does not provide information regarding existing safety and operational deficiencies are not defined and delineated within the project “study area” and thereby conjectures in this section are not objective nor quantified. The EIR/EIA does not provide accepted definition of deficiencies, parameters and criteria and their relationships and of correction, creation, linkages, “issues specific”, and “study area”. Provide a clear definition of the above and related to specific locations within the project area or location. | The project area is described in detail in Chapter 1 of the DEIR/EA and revised FEIR/EA and is shown in *Figure 1-3*. Chapter 1 of the DEIR/EA and revised FEIR/EA also describes existing deficiencies and how the project would address these deficiencies, and includes figures showing the proposed alternatives. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-58 | p.354\3-10/4 The EIR/EIA does not provide information regarding existing safety and operational deficiencies are not defined and delineated within the project “study area” and thereby conjectures in this section are not objective nor quantified. The EIR/EIA does not provide accepted definition of “not expected”, “indirect”, “catalyst”, and “area”. The EIR/EA does not relate the project to the CASP land use plans or existing NE and Central LA City master plans. The EIR/EA does indicate that the project would provide more capacity than indicated by the CASP and thereby would induce higher than planned traffic on Spring Street. Provide a clear definition of the above and related to specific locations within the project area or location. | Please see response to Comment Letter 9, Comments 9-13 and 9-57. Section 2.2.1 of the DEIR/EA and revised FEIR/EA addresses the compatibility of the proposed project with the CASP and also includes a statement from the City of Los Angeles Planning Department explaining why the difference in lane configuration would not present a conflict between the proposed project and CASP. The project would not increase capacity, although it would improve traffic flow. | None |

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| **Comment Letter 9, Dr. C.T Williams** | 9-59 | p.354\3-10/4 The EIR/EIA does not provide information regarding planned, proposed long-term infrastructure facilities and how the project relates to the CASP, the Figueroa/Riverside Intersection, and future changes of the five-legged Ave. 18 intersection. The EIR/EIA does not provide a clear "objectives" of the project. Provide a clear definition of the above and related to specific locations within the project area or location. | Please see responses to Comments Letter 9, Comments 9-13, 9-33, 9-57, and 9-58. | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-60 | p.12/3-12\5 The EIR/EIA does not provide information regarding planned, proposed long-term infrastructure facilities and how the project relates to the CASP, the Figueroa/Riverside Intersection, and future changes of the five-legged Ave. 18 intersection. The EIR/EIA does not provide a clear "objectives" of the project. Provide a clear definition of the above and related to specific locations within the project area or location. | See response to Comment Letter 9, Comment 9-59 (same comment). | None |
| **Comment Letter 9, Dr. C.T Williams** | 9-61 | p.12/3-12\5 The EIR/EIA does not provide information regarding planned, proposed long-term infrastructure facilities and how the project relates to the CASP, the Figueroa/Riverside Intersection, and future changes of the five-legged Ave. 18 intersection. The EIR/EIA does not provide a clear "objectives" of the project. Provide a clear definition of the above and related to specific locations within the project area or location. | See response to Comment Letter 9, Comment 9-59 (same comment). | None |
| **Comment Letter 10, Ani Martinez** | 10-1 | I am strongly against the destruction or modification of City of Los Angeles Historical Cultural Monument (HCM) No. 872 Raphael Junction Block Building due to the bridge widening. I request other proposals that don't include the destruction of buildings be investigated or chosen. | Build Alternative 2, which has been identified as the preferred alternative in the revised FEIR/EA, would not destroy or modify Los Angeles HCM No. 872, the Raphael Junction Block Building. | None |
| **Comment Letter 10, Ani Martinez** | 10-2 | Traffic should be encouraged to move through the North Broadway Viaduct so that the historic character of the Spring Street Bridge can be retained. | The proposed project is designed to enhance the flow of existing and anticipated vehicular, pedestrian, and bicycle traffic within the project area, and would not increase the number of vehicle lanes; therefore, the project would not be expected to increase the number of vehicles crossing the viaduct. Impacts on the historic character of the viaduct would result from widening the structure, which would be required to allow for the geometrical improvements on the viaduct, including the addition of sidewalks and bicycle lanes. Alternatives to minimize impacts to the historical features of the viaduct have been explored, and a new design option has been included as part of the preferred alternative identified in the revised FEIR/EA. This design option would meet the objectives of the project, which minimizing impacts to the historic viaduct to the extent feasible. | Chapter 1, Sections 2.6 and 2.7 |

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