



**Metro**

**APPENDIX I  
CULTURAL EFFECTS REPORT**



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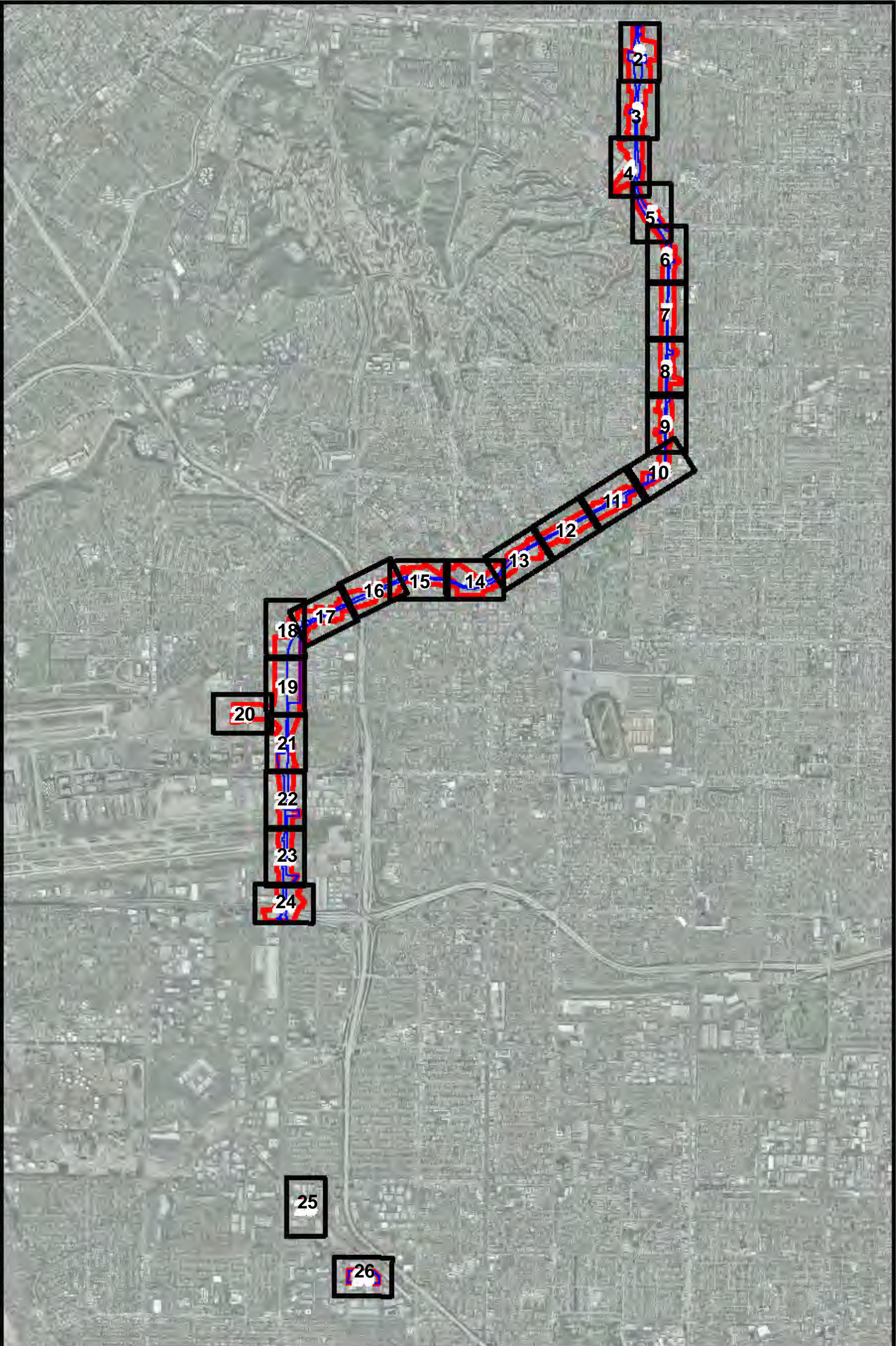
**AREA OF POTENTIAL EFFECTS MAP  
CRENSHAW / LAX TRANSIT CORRIDOR**

**FTA / MTA**

Los Angeles County

February 7, 2011

Title Sheet



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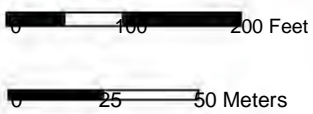
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-  Map Sheets
-  Direct APE
-  Indirect APE

**Crenshaw Transit Corridor**

**APE Overview  
Map 1 of 26**



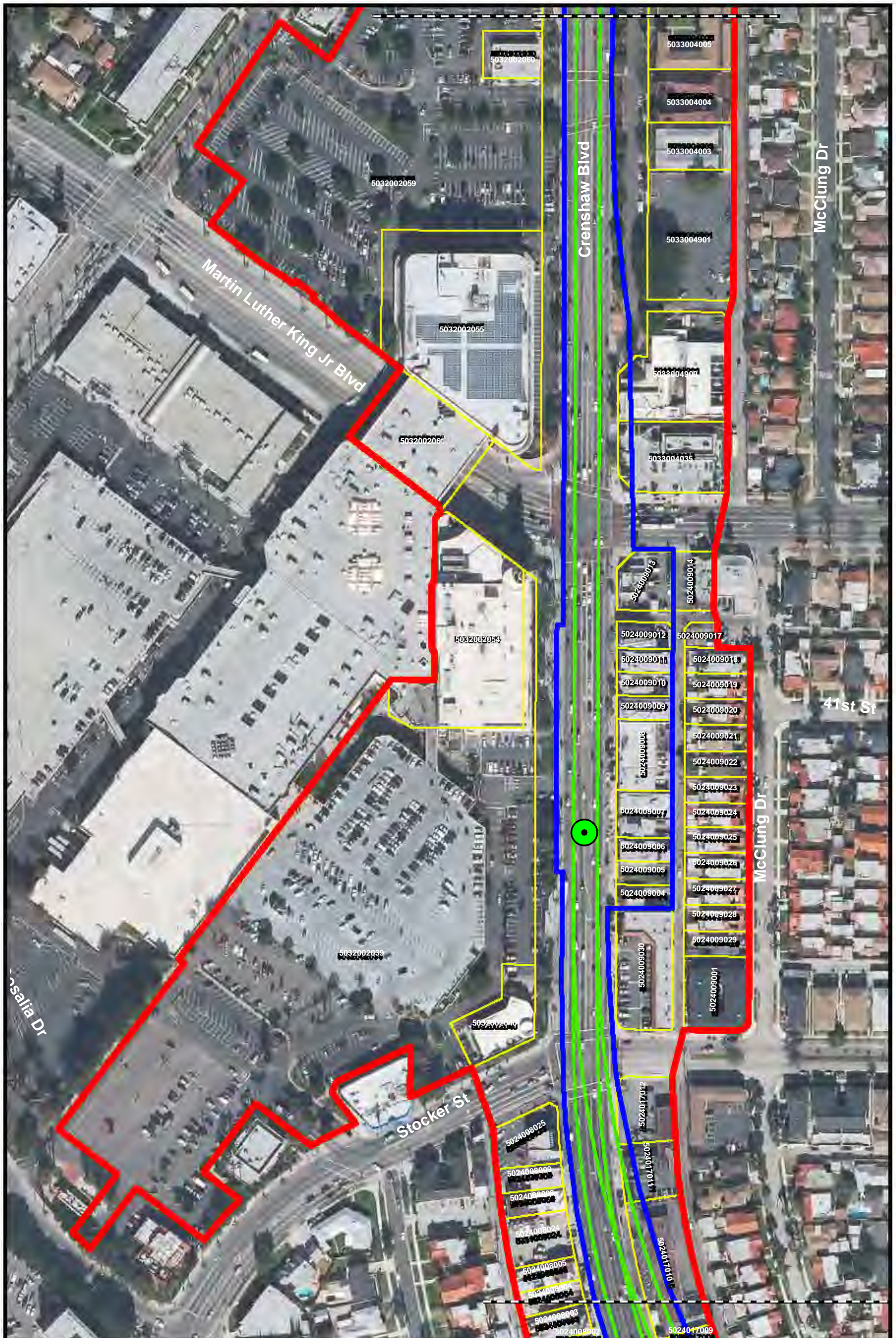
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- Alignment
- Station Locations

Crenshaw Transit Corridor



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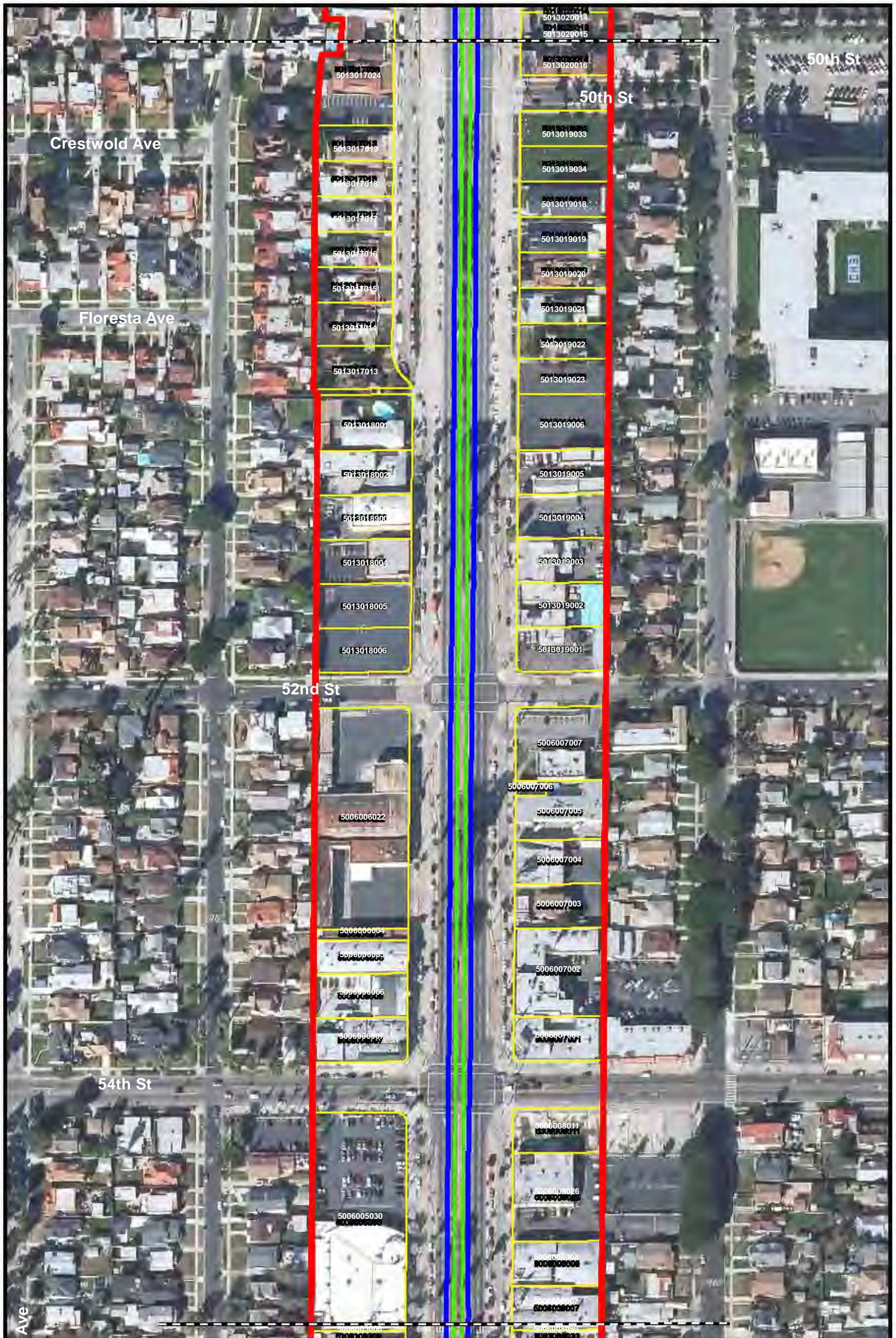









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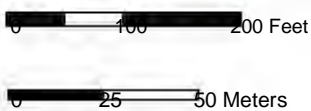
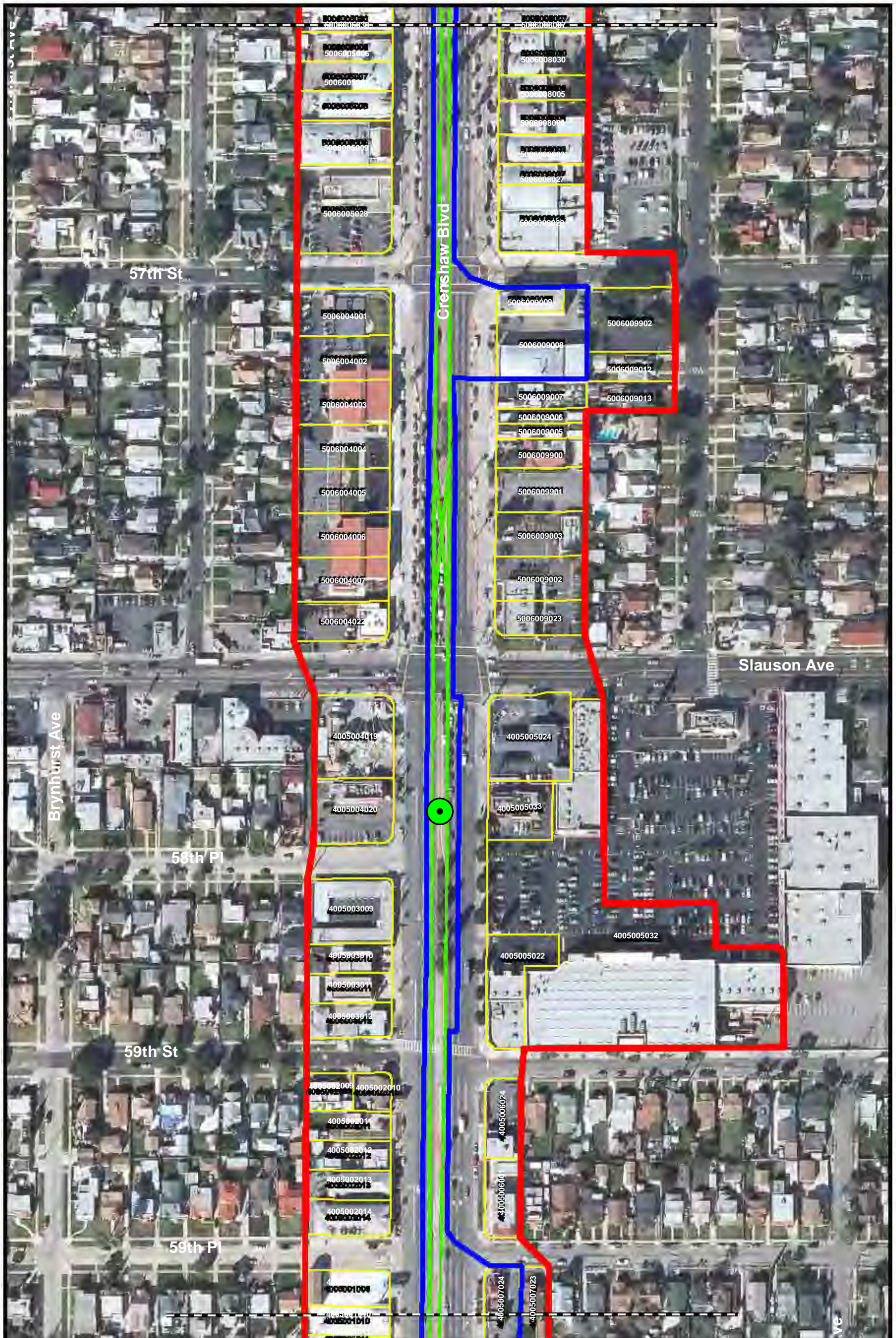




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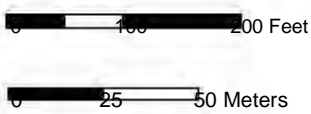
**Crenshaw Transit Corridor**

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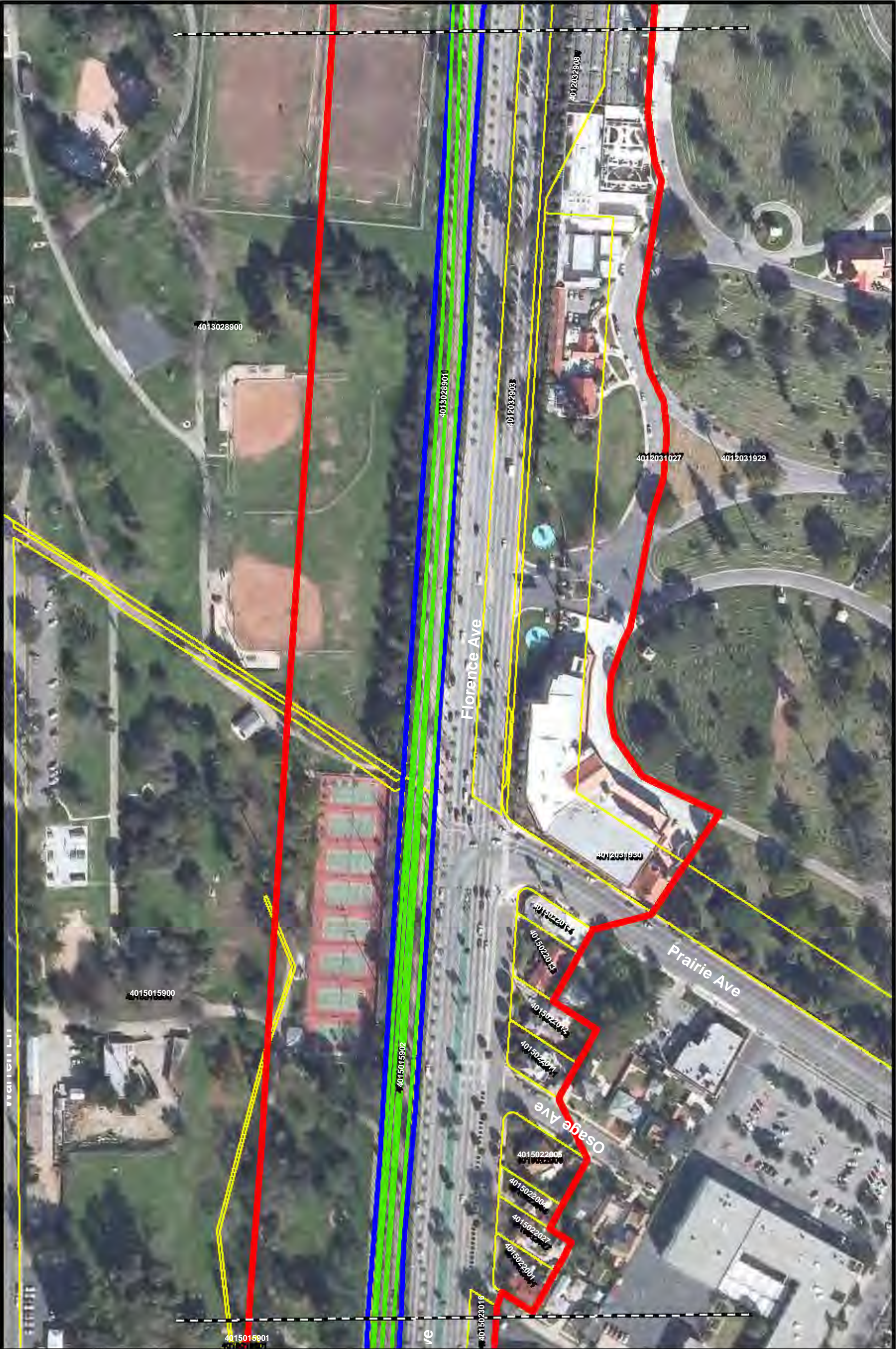
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Crenshaw Transit Corridor

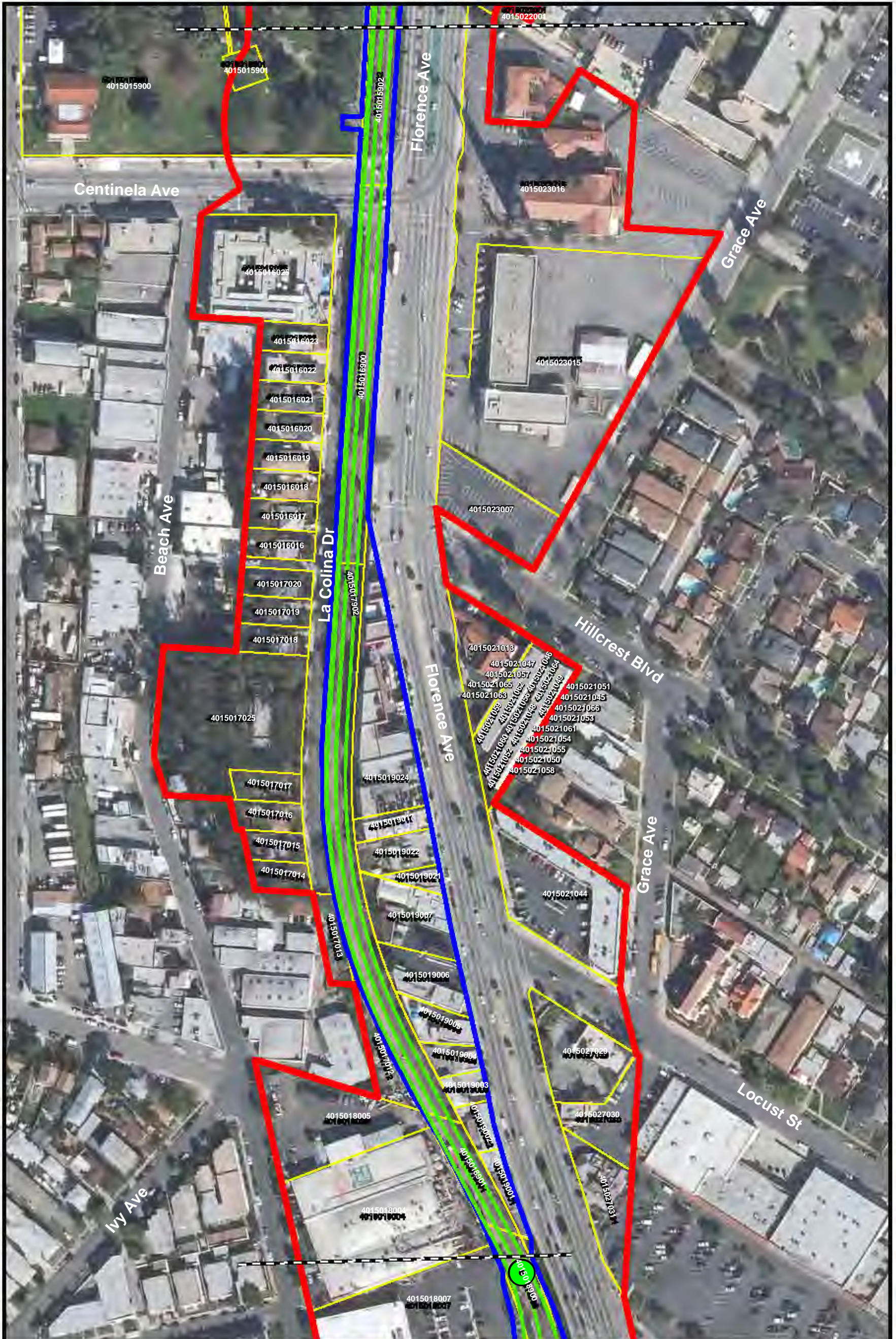
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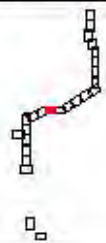
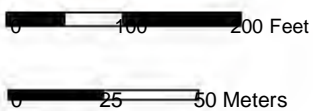






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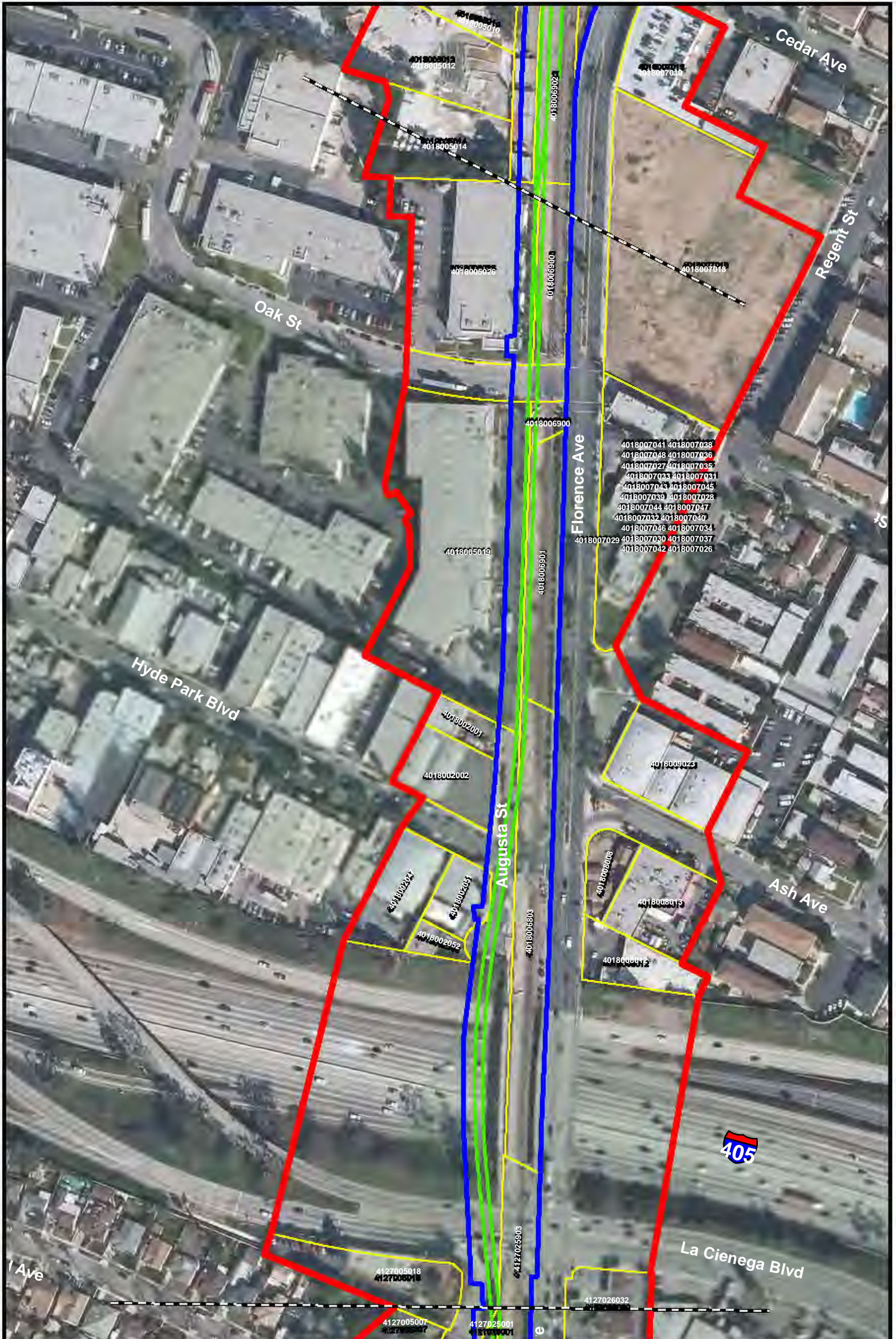
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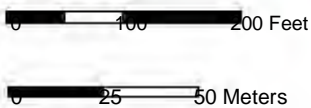
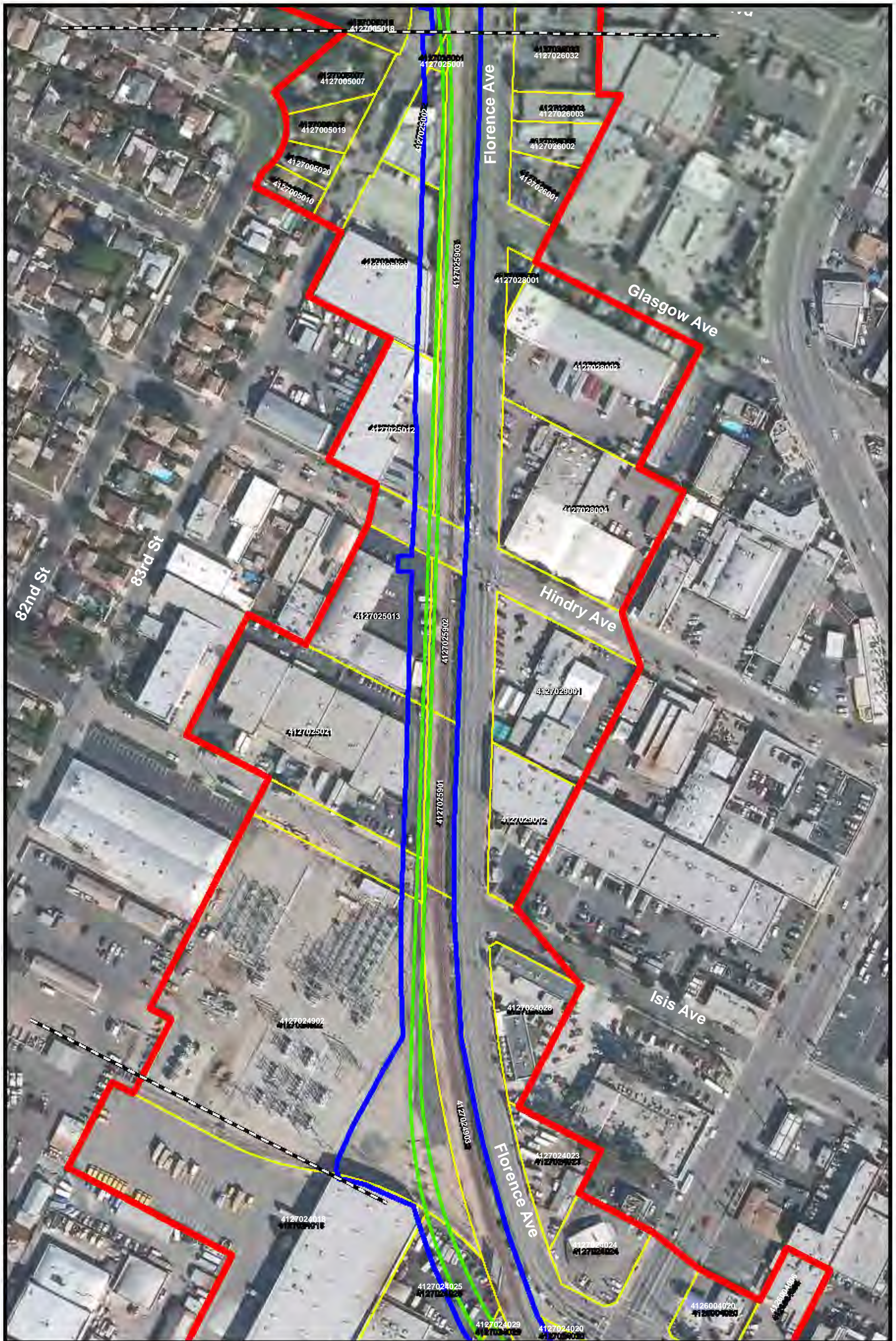
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-  Alignment
-  Station Locations






Crenshaw Transit Corridor

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	Indirect APE		Station Locations											
	Matchlines													



-  Direct APE
-  Indirect APE
-  Matchlines
-  Alignment
-  Station Locations

Crenshaw Transit Corridor

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83rd St

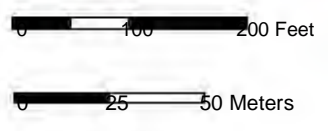
Winford Ave

Osage Ave

Manchester Blvd

Bellanca Ave

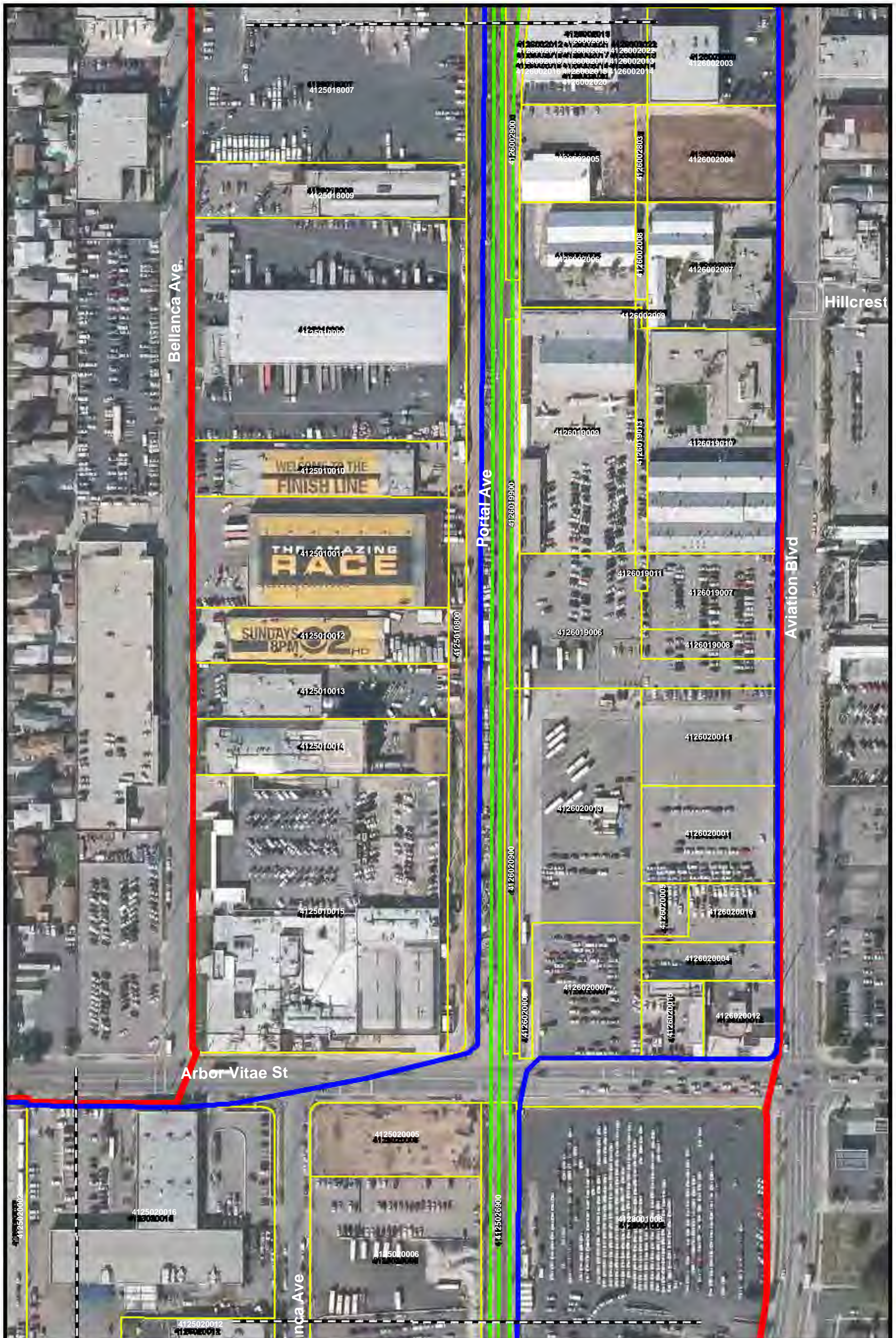
Portal Ave



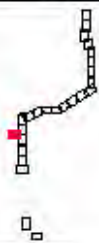
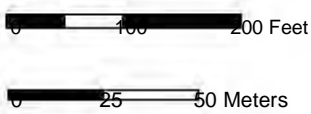
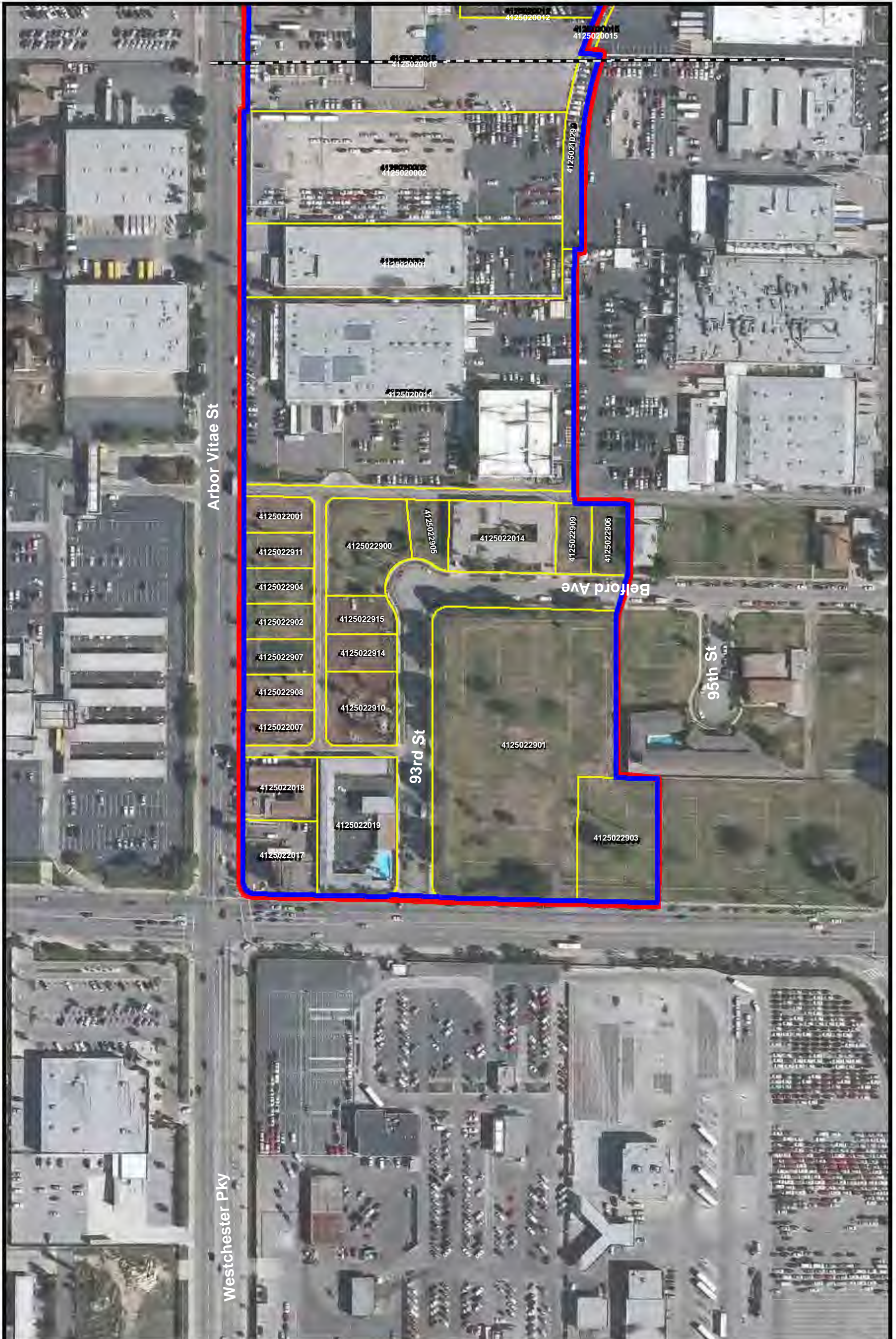
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Crenshaw Transit Corridor



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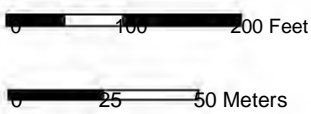
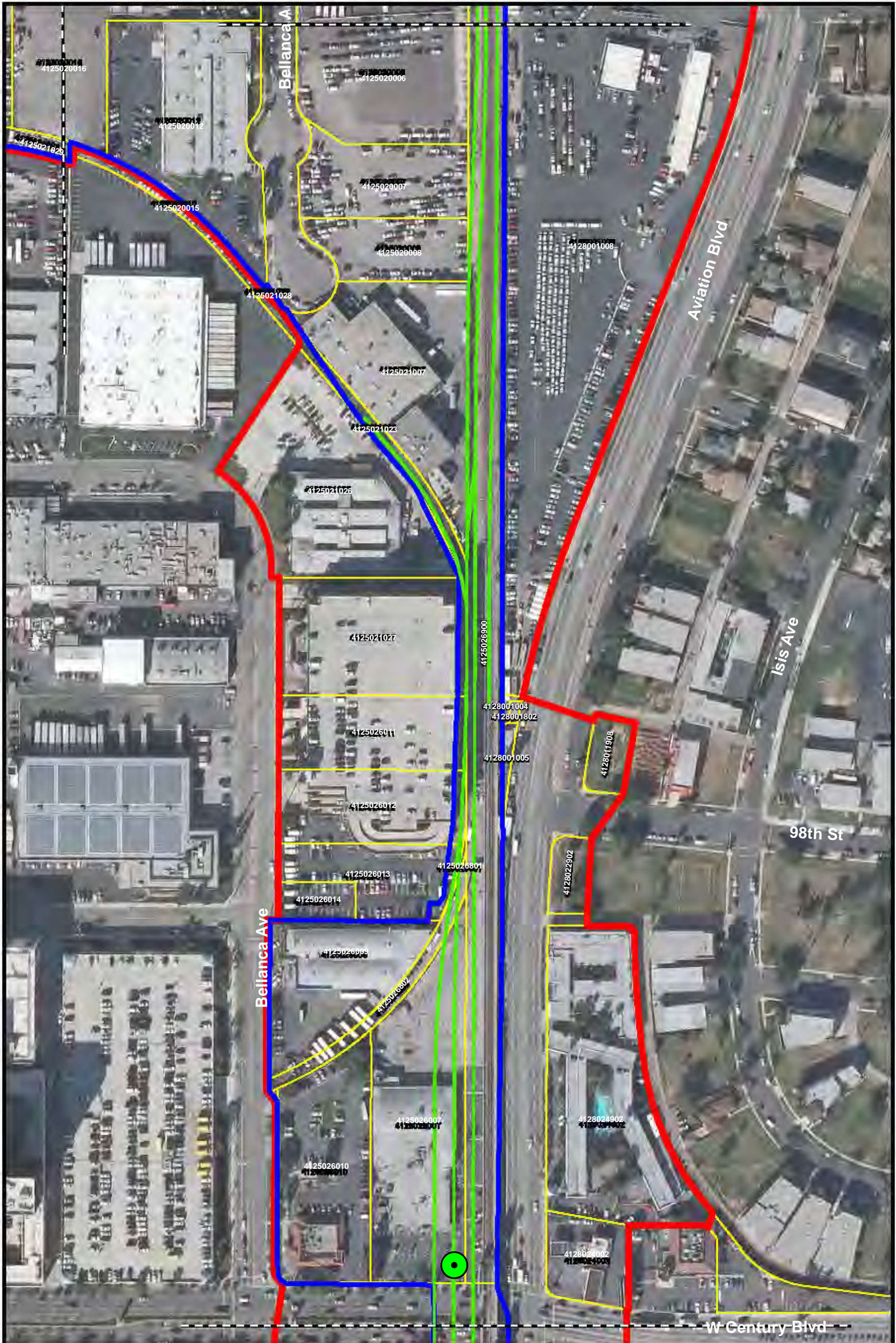


-  Direct APE
-  Indirect APE
-  Matchlines

-  Alignment
-  Station Locations

Crenshaw Transit Corridor

APE Map 20 of 26



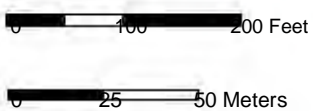
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- Indirect APE
- Matchlines

- Alignment
- Station Locations

Crenshaw Transit Corridor

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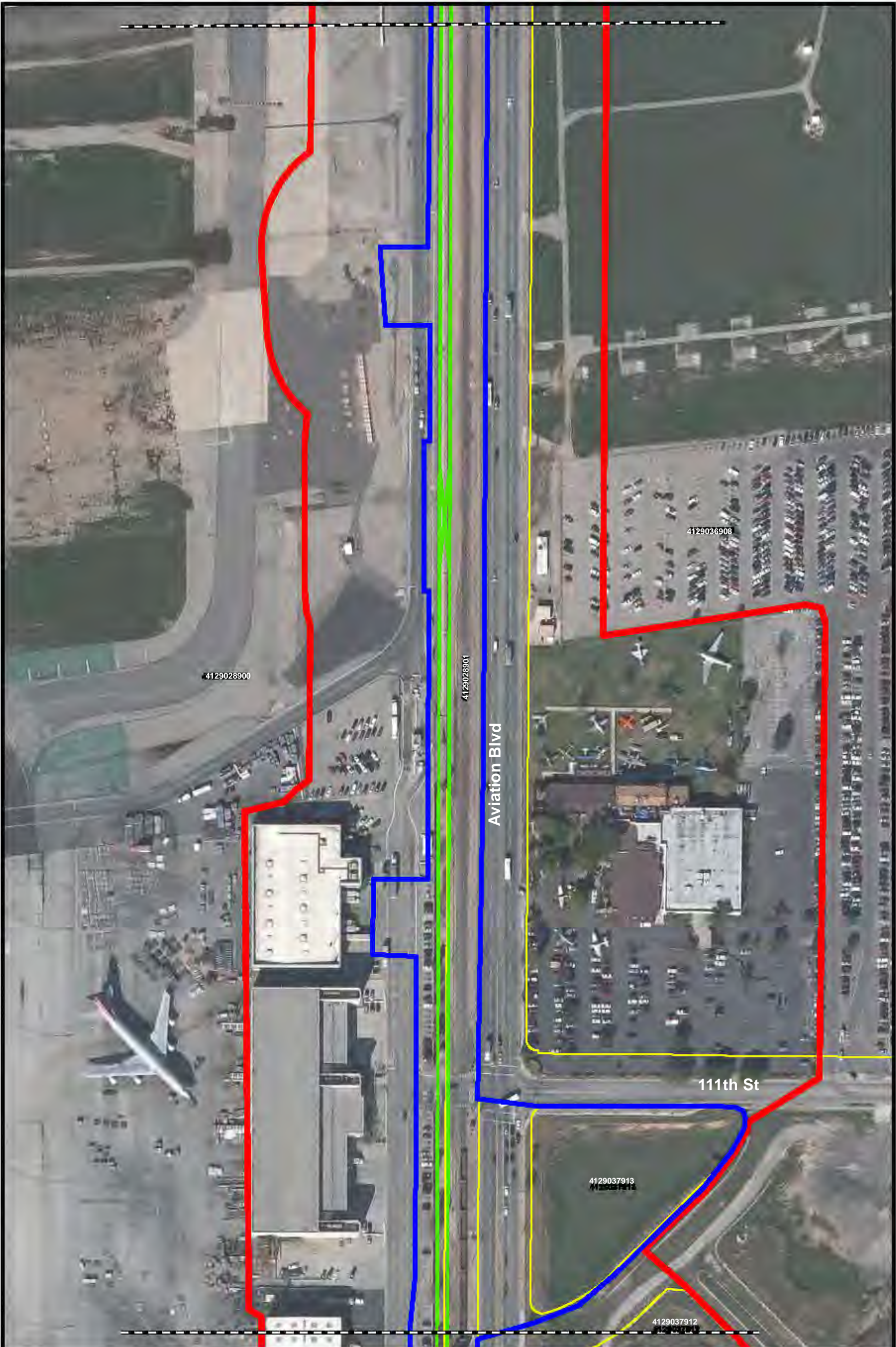


- ▭ Direct APE
- ▭ Indirect APE
- Matchlines

- Alignment
- Station Locations

Crenshaw Transit Corridor

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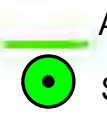
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Direct APE	Alignment								
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0 100 200 Feet  
 0 25 50 Meters



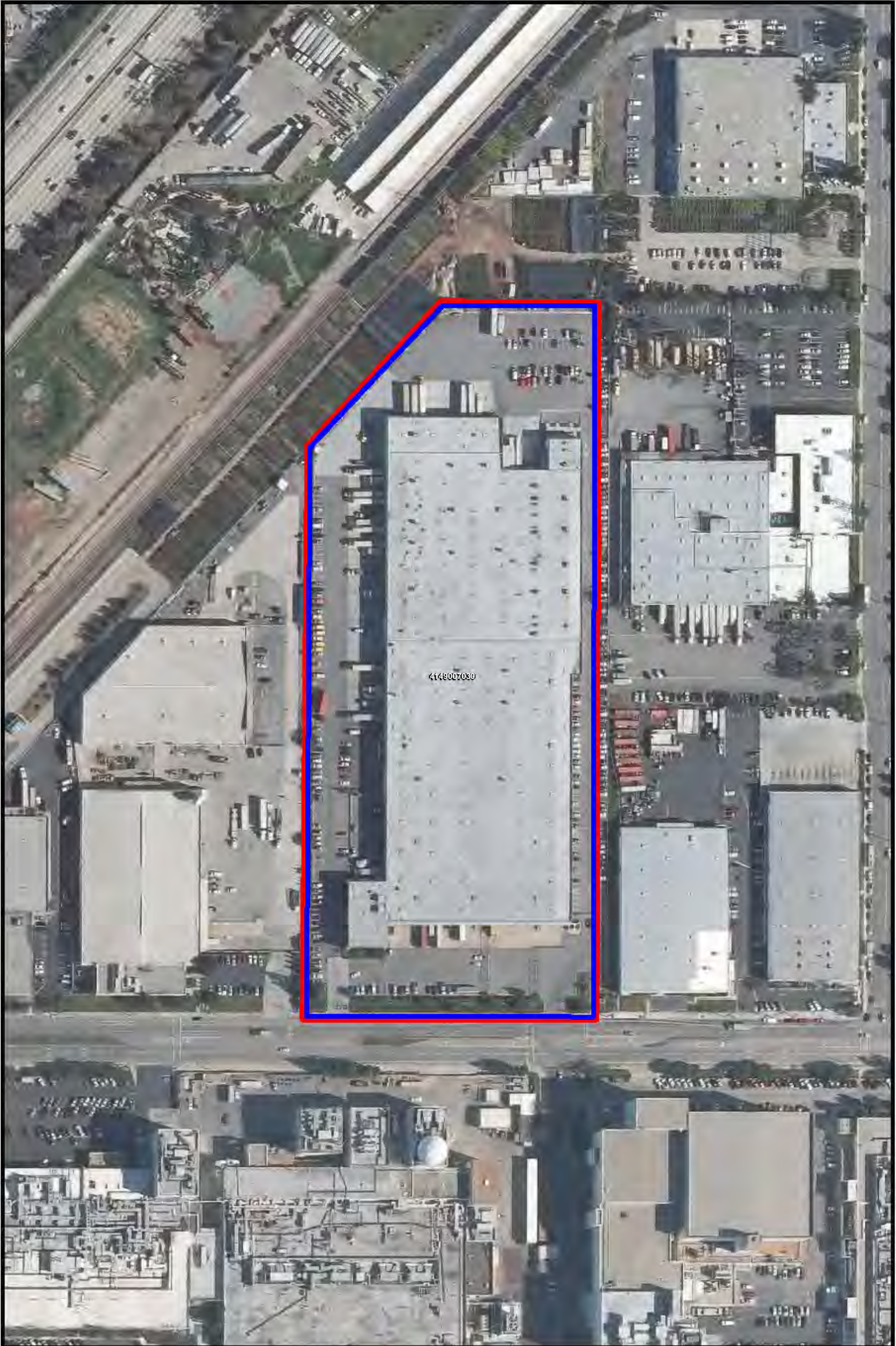
Direct APE  
 Indirect APE  
 Matchlines



Alignment  
 Station Locations

Crenshaw Transit Corridor

APE Map 25 of 26



<p>0 100 200 Feet</p> <p>0 25 50 Meters</p>		<p> Direct APE</p> <p> Indirect APE</p> <p> Matchlines</p> <p> Alignment</p> <p> Station Locations</p>	<p><b>Crenshaw Transit Corridor</b></p> <hr/> <p>APE Map 26 of 26</p>
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# CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

Project No. PS-4330-1968

## Built Environment Technical Report

*Prepared for:*



*Prepared by:*

**SWCA Environmental Consultants  
150 S. Arroyo Parkway, 2nd Floor  
Pasadena, California 91105**

May 2011

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## **1.0 SUMMARY**

### **1.1 Purpose and Scope**

SWCA Environmental Consultants (SWCA) conducted a cultural resources inventory of the built environment that may be affected by the Los Angeles County Metropolitan Transportation Authority's (Metro's) proposed Crenshaw/LAX Transit Corridor Project (the project). The project is approximately 8.5 miles in length and is located within the cities of Los Angeles and Inglewood, Los Angeles County, California. The purpose of this project is to provide an effective north-south transportation network within the Crenshaw Transit Corridor—which is vital to alleviate current and projected connectivity and mobility problems.

This technical report was prepared to comply with current federal and state environmental review policies. National Environmental Policy Act (NEPA) guidelines require the identification of historic properties and evaluation of project-related effects on those properties. This report is also a component of compliance with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and with regulations contained in 36 Code of Federal Regulations (CFR), Part 800. Section 106 of the NHPA defines historic properties as “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places” (36 CFR Section 800.16 [1][1]). Effects under Section 106 of the NHPA are defined in the “Criteria of adverse effect” (36 CFR Section 800.5[1]).

The California Environmental Quality Act (CEQA) and CEQA Guidelines (California 2005) also require lead agencies to evaluate proposed projects for the potential to cause significant impacts on *historical resources*. A historical resource is defined as “a resource listed in, or determined eligible for listing in, the California Register of Historical Resources” in California Public Resources Code (PRC) Section 21084.1. A proposed project that may affect historical resources is submitted to the California State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the lead agency and before any project-related clearance, demolition, or construction activities may commence. This technical appendix was completed under provisions of CEQA (Section 15064.5) and CEQA Guidelines (Title 14, California Code of Regulations [CCR] Chapter 3, Article 5) for determining “significance of impacts to archeological and historical resources.”

### **1.2 Dates of Investigation**

A cultural resources records search for the project was conducted on January 2, 2008. Intensive-level surveys of the project Area of Potential Effect (APE) were conducted from August 2010 to February 2011. This report was completed in May 2011.

### **1.3 Investigation Constraints**

Access to built environment resources was made from public rights-of-way; no building interiors were inspected as part of the effort to identify historic properties.



### 1.4 Summary of Findings

There are 66 resources listed in, determined eligible for listing in, or eligible for listing in the National Register of Historic Places (NRHP) or the California Register of Historical Resources (CRHR) in the project APE, and 34 resources listed in, determined eligible for listing in, or eligible for listing at the local level (not eligible for listing in the NRHP or CRHR). The APE was established by consensus and limits the scope of study to those parcels expected to be affected by the proposed project. There 41 historic properties (listed in, determined eligible for listing in, or eligible for listing in the NRHP), and 59 historical resources (listed in, determined eligible for listing in, or eligible for listing in the CRHR, or for local designation). See Table 1-1 below and Tables 4-3, 4-4, 4-5, 4-6, 4-7, and 4-8 (in the Affected Environment section) for a summary of these findings.

**Table 1-1. Summary of Findings**

<b>All Properties in APE</b>	<b>Findings (No. of resources)</b>
<b>National Register of Historic Places</b> Listed in, determined eligible for listing in, or found eligible for listing in, separately or as contributors to districts; includes two historic districts	<b>41</b>
<b>National Register Historic Districts</b> Leimert Park Inglewood Park Cemetery	<b>35</b> <b>1</b>
<b>California Register of Historical Resources</b> Listed in, determined eligible for listing in, or found eligible for listing in, separately or as contributors to districts	<b>25</b>
<b>Local Designation</b> Listed in, determined eligible for listing in, or found eligible for listing in, separately or as contributors to districts	<b>34</b>
Found not eligible for listing in the NRHP or CRHR	110
<b>TOTAL RESOURCES EVALUATED</b>	<b>210</b>
<b>NOT EVALUATED</b> Pre-1968 improvements exempted from study because of a lack of integrity	<b>230</b>

Identification included review of one resource that was previously listed in or determined eligible for listing in the NRHP. Of the 210 resources evaluated for historic significance, 40 previously unidentified resources were found eligible for listing in the NRHP (including two historic districts), 25 resources were found eligible for listing in the CRHR, and 34 were found eligible for local designation. A total of 110 properties were found to be ineligible for any listing.

Tables 4-3, through 4-8 provide separate counts of historic properties, historical resources, properties found not eligible for either designation, and properties not evaluated for historic significance. After project historic resources identification was completed, including results of previous evaluations, exemptions, and survey efforts, a total of 440 historic properties or historical resources in the project APE was considered.

The remaining properties within the project area included vacant parcels and properties containing improvements that were completed after 1968 (Appendix F).

**1.5 Disposition of Data**

This report will be filed with the Federal Transit Administration (FTA), Metro, Parsons Brinckerhoff (PB), the South Central Coastal Information Center (SCCIC) located at California State University—Fullerton, and SWCA. All field notes and records related to the project will remain on file at SWCA's Pasadena office.



## 2.0 INTRODUCTION

Under contract to the Los Angeles County Metropolitan Transportation Authority (Metro), Parsons Brinckerhoff (PB) retained SWCA Environmental Consultants (SWCA) to prepare compliance for Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, including an intensive built environment survey for the proposed Crenshaw/LAX Transit Corridor Project. SWCA prepared this technical report to identify and evaluate historic built environment resources and to analyze effects of construction and implementation of the proposed project. Archaeological resources are addressed in a separate report.

### 2.1 Regulatory Setting

National Environmental Policy Act (NEPA) guidelines require compliance with federal laws that require the identification of historic properties and consideration of project-related effects on those properties. This report was prepared to comply with Section 106 of the NHPA, and with regulations contained in 36 Code of Federal Regulations (CFR) Part 800. These regulations require federal agencies to consider the effects of proposed projects on historic properties as part of the environmental assessment process.

Section 106 of the NHPA also requires federal agencies to take into account effects of undertakings on historic properties and to allow the Advisory Council on Historic Preservation (ACHP) the opportunity to comment on those undertakings, following these regulations (36 CFR Part 800).

This technical report was also prepared to comply with requirements of the California Environmental Quality Act (CEQA) and CEQA Guidelines (CERES 2010) as they apply to cultural resources. Under CEQA, it is necessary for a lead agency to evaluate proposed projects for the potential to cause significant impacts on historical resources. A proposed project that may affect historical resources is submitted to the State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the lead agency and before any project-related clearance, demolition, or construction activities may begin. If a proposed project could be expected to cause substantial adverse change to a historical resource, environmental clearance for the project would require the evaluation of alternatives or implementation of mitigation measures to reduce or avoid impacts. If a project is expected to result in an impact on historical resources, CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most the basic objectives of the project and avoid or substantially lessen any significant impacts on the historical resource.

Properties that may be historical resources within the identified project Area of Potential Effects (APE) were evaluated for National Register of Historic Places (NRHP) eligibility, according to criteria set forth in 36 CFR Part 60.4. The age criterion for inclusion in the NRHP is 50 years or more, except in cases of overriding significance (Criteria Consideration G). The properties were also considered for California Register of Historical Resources (CRHR) eligibility; although there is no established age threshold for the CRHR, the same 50-year cutoff was used for this project. Under Public Resources Code (PRC) Section 5024.1, the CRHR was established to serve as an authoritative guide to the state's significant historical and archaeological resources.



Under Section 106 and CEQA, if a proposed project and its related effects would adversely affect the qualities of properties either listed in or determined eligible for listing in the NRHP or the CRHR, such effects or impacts may be considered adverse or significant (respectively).

## **2.2 Project Personnel**

This report was prepared by SWCA Architectural Historian Shannon Carmack, who meets the Secretary of the Interior’s Professional Qualifications Standards (PQS) (36 CFR Part 61, in history and architectural history). The historic context statement was prepared by Marlise Fratinardo of Sapphos Environmental, Inc., who also meets the PQS in history and architectural history. The report was reviewed for quality assurance/quality control (QA/QC) by SWCA Cultural Resources Principal Investigator John Dietler, Ph.D., Registered Professional Archaeologist (RPA). SWCA architectural historians Brandi Shawn, Samantha Murray, and Sarah Edwards provided technical support. SWCA geographic information systems (GIS) specialist Emily Kochert created the maps and figures used in this report; Danielle Desruisseaux served as technical editor.

## **2.3 Project Description**

This section describes the alternatives that have been carried forward for study in the Final Environmental Impact Report (FEIR) that satisfy the purpose and need of the project. Details of the No Build and Locally Preferred Alternative (LPA), including design options and phasing options (minimum operable segments [MOS]) are described below.

### **2.3.1 No Build Alternative**

Transit service under the No Build Alternative is focused on the preservation of existing services and projects. The No Build Alternative does not include any major service improvements or new transportation infrastructure beyond what is listed in Metro’s 2009 Long-Range Transportation Plan (LRTP).

### **2.3.2 Locally Preferred Alternative**

The Crenshaw/LAX Transit Corridor Project is a proposed transit infrastructure improvement project that would extend approximately 8.5 miles from the Metro Green Line Aviation/LAX Station to the Exposition Light Rail Transit (LRT) line (under construction) at the intersection of Exposition and Crenshaw Boulevards (Figure 2-1). The alignment would be double-tracked and would comprise at-grade street, at-grade railroad, aerial, and below-grade sections. The planned Metro Crenshaw Line would join the Metro Green Line at the Aviation/LAX Station and extend to the Crenshaw/Exposition Line Station in the north. Metro Green Line service can also be extended north to serve the new Aviation/Century Station for transfers to the Los Angeles International Airport (LAX). Metro will also consider two MOS. MOS-1 would extend from the Metro Green Line to the Crenshaw/King Station.

Figure 2-1. Project Alignment



Source: Parsons Brinkerhoff, 2011.



The incorporation of Design Option 6 would include the remaining underground segment to connect the Crenshaw/King Station to the Crenshaw/Exposition Station. MOS-2 would extend from the Metro Exposition Line to the Aviation/Century Station. MOS-2 would include the incorporation of Design Option 6 into the base project. These improvements would provide regional benefits to people throughout Los Angeles County.

### **2.3.2.1 Grade separations**

Proposed grade separations (Figure 2-2) are to be located:

- Along Crenshaw Boulevard between Exposition Boulevard and 48th Street (below grade)
- Between 60th Street and Harbor Subdivision

Along Harbor Subdivision (see Figure 2-2):

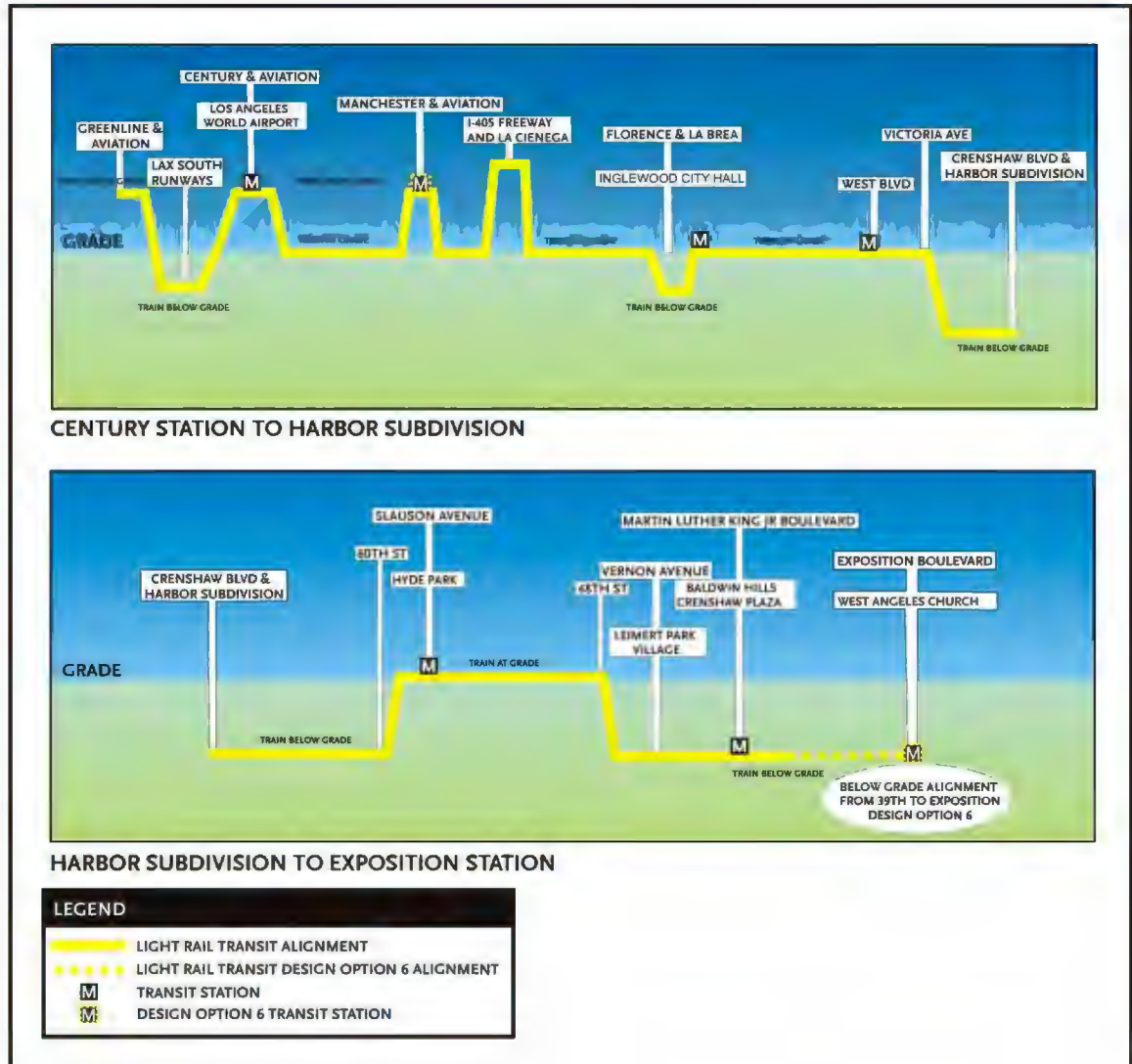
- Between Crenshaw Boulevard and Victoria Avenue
- Across La Brea Avenue (below grade)
- Across La Cienega Boulevard/I-405 Freeway (aerial)
- Across Manchester Avenue (aerial)
- Across Century Boulevard (aerial)
- Adjacent to the LAX south runways (below-grade trench)
- Across Centinela Avenue (below grade) (design option)

### **2.3.2.2 Stations**

Proposed station locations are planned as follows:

- Aviation/Century: Aerial station on Century Boulevard just north of the northwest corner of Aviation and Century Boulevards.
- Florence/La Brea: At-grade station just north of Market Street, to the west of Florence Avenue.
- Florence/West: At-grade center platform station just south of Redondo Boulevard, to the west of West Boulevard.
- Crenshaw/Slauson: At-grade center platform station on Crenshaw Boulevard, just south of Slauson Avenue.
- Crenshaw/King: Underground station on Crenshaw Boulevard, just south of Martin Luther King Jr. Boulevard
- Crenshaw/Exposition: Underground station on Crenshaw Boulevard just south Exposition Boulevard.
- Optional Aviation/Manchester: At-grade station east of Manchester Avenue or aerial station across Manchester Avenue, to the west of Aviation Boulevard.
- Optional Crenshaw/Vernon Station: Below-grade station on Crenshaw Boulevard, south of Vernon.



**Figure 2-2. Vertical Profile for the Crenshaw/LAX LRT Line**


Source: TAHA, 2011.

**2.3.2.3 Maintenance Yard**

The Crenshaw/LAX LRT Project would require a new maintenance and operations facility. The facility would provide light rail vehicle (LRV) service and maintenance and storage for vehicles that are not in service. Proposed maintenance facility locations include:

- Site 14: 17.6-acre site bound by Arbor Vitae to the north and Harbor Subdivision to the east.
- Site 15: 20.5-acre site bound by Harbor Subdivision to the west, Aviation Boulevard to the east, and Arbor Vitae Street to the south.
- Site D22N: 3.5-acre site located in the city of Hawthorne, bound by Harbor Subdivision to the north and Isis Avenue to the east.
- Site 17: 14.2-acre site located in the city of Redondo Beach, bound by Redondo Beach Avenue to the west and Harbor Subdivision to the east.

**2.3.3 Route Alignment and Termini**

The alignment would begin at the existing Metro Green Line Aviation/LAX Station which is in an aerial configuration, and transition to a below-grade trench configuration, south of 111th Street, as it passes adjacent to the LAX south runways. After clearing the south runways north of 104th Street, the alignment would transition to an aerial configuration across Century Boulevard. At Century Boulevard, the LRT alignment would be on a new bridge constructed west of, and adjacent to, the existing railroad bridge.

The alignment would transition to an at-grade configuration north of the Wally Park structure and operate at-grade across Arbor Vitae Street and would transition to an aerial structure across Manchester Avenue. The alignment would transition back to grade level for at-grade crossings at Isis and Hindry Avenues. The LRT alignment would transition to an aerial configuration across La Cienega Boulevard and the I-405 Freeway, and would return to grade before Oak Street.

The alignment would continue at grade to the east with at-grade crossings at Oak Street, Cedar Street, Ivy Street, and Eucalyptus Avenue. The alignment would descend to a below-grade trench configuration under La Brea Avenue with an open-cut station to the east of La Brea Avenue. The alignment would transition back to grade east of La Brea Avenue until Victoria Avenue. At-grade crossings would occur at Centinela Avenue, West Boulevard and Brynhurst Avenue and an at-grade station would be located to the west of West Boulevard.

West of Victoria Avenue, the alignment would transition to a below-grade tunnel and continue along the Harbor Subdivision until Crenshaw Boulevard, where it would continue north under Crenshaw Boulevard until north of 59th Place, where it would transition to grade level through a portal in the middle of the Crenshaw Boulevard median. The alignment is required to be below-grade under this segment of Crenshaw Boulevard because the street right-of-way width is 100 feet, which would be insufficient to accommodate an at-grade LRT without reducing roadway lane capacity.

The alignment would travel at grade in a new median of Crenshaw Boulevard south of 59th Street to 48th Street. The frontage roads along Crenshaw Boulevard would be



eliminated where the alignment is operating at grade. There would be an at-grade station in the median of Crenshaw Boulevard, south of Slauson Avenue. The alignment would transition to a below-grade configuration north of 48th Street through a portal in the median of Crenshaw Boulevard. The alignment would be below grade for the remainder of the alignment, either to the MOS-1 at Martin Luther King Jr. Boulevard or at Exposition Boulevard, with the incorporation of Design Option 6. The below-grade alignment could be built as either a bored or cut-and-cover tunnel. The choice of tunneling methodology will be based on an analysis of the length and depth of the tunnel section. Below-grade stations would be located in the median of Crenshaw Boulevard at Martin Luther King Jr. and Exposition Boulevards, with portal entrances on properties adjacent to Crenshaw Boulevard.

MOS-2 would follow the same alignment described above, but would begin at the Crenshaw/Exposition Station with the incorporation of Design Option 6 and would terminate at the Aviation/Century Station.



## **3.0 METHODOLOGY FOR IMPACT EVALUATION**

This section describes the processes for identifying cultural resources, determining the significance of those resources, evaluating potential effects from construction and operation of the project, and potential permanent changes to historic properties and/or their contextual settings, and the thresholds of significance that are applied to potential impacts. Section 4.0 describes the historic properties identified in the project area and their significance. Section 5.0 evaluates potential impacts to these resources from construction and operation, and Section 6.0 evaluates potential indirect and cumulative effects.

### **3.1 Definition of Historic Resources and Standards of Significance**

#### **3.1.1 Federal**

A number of federal laws address the protection of historic and cultural resources. Analysis of expected effects to built environment resources are primarily addressed through the National Environmental Policy Act of 1969 (NEPA), Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and Section 4(f) of the Department of Transportation Act of 1966.

##### **3.1.1.1 National Environmental Policy Act**

The intent of NEPA is to protect the natural and built environment, including historic properties, from adverse effects resulting from federal actions. Before a federal agency may proceed with a proposed action, an environmental evaluation must be made to determine whether the action may have a significant effect on the environment. Effects on historic properties are usually assessed in coordination with the process established under Section 106 of the NHPA. Normally, the Section 106 process must be completed before an Environmental Impact Statement (EIS) can be finalized.

Generally under NEPA, historic and cultural resources include properties that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). Although NEPA does not provide specific definitions or criteria for determining the significance of historic properties, the term “historic property” is clearly defined in Section 106.

NEPA does require federal agencies to evaluate the significance of potential project-related effects, including both direct (tangible, e.g., demolition or alteration) and indirect (less obvious, e.g., noise or visual) effects. NEPA does provide guidance for determining significance as a measure of impact intensity (Section 1508.27) as follows:

(b) Intensity. This refers to the severity of impact. Responsible officials must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

1. Impacts that may be both beneficial and adverse.  
A significant effect may exist even if the federal agency believes that on balance the effect will be beneficial.



2. The degree to which the proposed action affects public health or safety.
3. Unique characteristics of the geographic area such as proximity to historic or cultural resources, parklands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
4. The degree to which the effects on the quality of the human environment are likely to be controversial.
5. The degree to which the possible effects on the human environment are uncertain or involve unique or unknown risks.
6. The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
7. Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
8. The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources.
9. The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
10. Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

**3.1.1.2 National Historic Preservation Act**

This report was completed under the provisions of NHPA Section 106 (36 Code of Federal Regulations [CFR] Part 800) in its applications for determining “effects,” or impacts, as described in Part 800.5(a)(1).

Section 106 of the NHPA requires that federal agencies take into account effects on historic properties that may be caused by undertakings and that the Advisory Council on Historic Preservation (ACHP) be afforded the opportunity to comment on those undertakings (16 United States Code [USC] 470a, 36 CFR Part 800). Section 106 requires that historic properties be identified, that effects be analyzed, and if adverse effects are



expected, appropriate mitigation be identified and implemented under a Memorandum of Agreement (MOA).

Cultural resources (or *historic properties* under the NHPA) include any district, site, building, structure, or object that is included in or eligible for listing in the NRHP (36 CFR Part 800.1).

Section 106 defines a *historic property* as:

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National Register criteria (36 CFR Part 800 Protection of Historic Properties, Section 800.16 Definitions[l][1]).

#### **National Register of Historic Places**

The NRHP is the nation’s official list of districts, sites, buildings, structures, and objects worthy of preservation. At present, the NRHP includes approximately 80,000 listings, including icons of American architecture, engineering, culture, and history. Overseen by the National Park Service (NPS), under the Department of the Interior, the NRHP was authorized under the NHPA, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the NPS. For a property to be listed in or determined eligible for listing in the NRHP, it must be demonstrated to have:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:

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



Integrity is defined in NPS-prepared NRHP guidance as the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must retain integrity.

The NRHP guidance asserts that properties be at least 50 years old to be considered for eligibility. Properties completed less than 50 years before they are evaluated must be “exceptionally important” (Criteria Consideration G) to be considered eligible for listing, or under certain circumstances they must be part of a historic district whose period of significance extends forward to a date less than 50 years ago.

Refer to Section 5.0 for an overview of effects.

### **Section 106**

Effects on historic properties under Section 106 of the NHPA are defined in the assessment of adverse effects in 36 CFR Part 800.5(a)(1):

An adverse effect is found 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. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. 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.

Adverse effects on historic properties are defined and include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) 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;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric, or audible elements that diminish the integrity of the property's significant historic features;



- (vi) Neglect of a property which 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
- (vii) 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 (36 CFR Part 800.5[a][2]).

To comply with Section 106, the Criteria of adverse effect are applied to historic properties in the project Area of Potential Effects (APE), pursuant to 36 CFR Part 800.5 (a)(1). A finding of no adverse effect may be appropriate when the undertaking's effects do not meet the thresholds set forth in the criteria of adverse effect, or in certain cases when the undertaking is modified to avoid or lessen effects, or conditions are imposed to ensure review of rehabilitation plans for conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (codified in 36 CFR Part 68). If adverse effects findings are made, mitigation is proposed and resolution of adverse effects occurs through consultation pursuant to 36 CFR Part 800.6(a) to avoid, minimize, or mitigate adverse effects on historic properties.

Historic properties in the APE are described in Section 4.0. Sections 5.0 and 6.0 present the analysis of expected effects on historic properties in the APE. Recommended mitigation to reduce adverse effects is described in Section 5.0.

### **3.1.1.3 Department of Transportation Act Section 4(f)**

Section 4(f) (23 CFR 774) of the U.S. Department of Transportation (USDOT) Act of 1966, as amended (49 USC 1653[f]), defines impacts of USDOT agency projects to be the "use" of certain types of resources, including "historical sites."

USDOT agencies, including the Federal Transit Administration (FTA), cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and historical sites (defined as listed in or determined eligible for listing in the NRHP) unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land.
- The action includes all possible planning to minimize harm to the property resulting from use (FHWA 2009).

In the Federal Highway Administration (FHWA)–prepared "What is Section 4(f)?" the regulations are described as applying to "any publicly or privately owned historic site listed or [determined] eligible for listing on the National Register" (FHWA 2009). "Historical sites" are defined in guidance for the regulations rather than in the regulations, leaving definition to other applicable regulations, principally the NHPA and its NRHP criteria for historic properties as described in Section 3.1.1.2.

Impacts on Section 4(f) properties, defined as "use" of the property, must be avoided, minimized, or mitigated, in that order. The FTA follows FHWA procedures for resolving





de minimis (minor) impacts through recorded administrative decisions, and mitigating impacts through Section 4(f) procedures (FHWA 2009).

### **3.1.2 State**

#### **3.1.2.1 California Environmental Quality Act**

Concurrently with the federal process, the California Environmental Quality Act (CEQA; Public Resources Code [PRC] Section 5024) requires evaluation of proposed projects which may cause significant effects on historical resources. Under CEQA, “historical resources” must be identified, expected impacts must be analyzed, and mitigation must be identified and implemented as above, where necessary. For CEQA conformance, historical resources include the built environment as well as “unique paleontological resources” or “unique geologic features.”

CEQA Guidelines define a *historical resource* as:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (CRHR; PRC Section 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

CEQA equates a “substantial adverse change” in the historic significance of a resource with a significant effect on the environment (PRC Section 21084.1). Thresholds of substantial adverse change are established in PRC Section 5020.1 as demolition, destruction, relocation, or “alteration activities that would impair the significance of the historic resource.” If a project is expected to result in an effect on historical resources, CEQA Guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most the basic objectives of the project and avoid or substantially lessen any significant effects on the historical resource.

A proposed project that may affect historical resources is submitted to the State Historic Preservation Officer (SHPO) for review and comment prior to project approval by the lead CEQA agency, and before any project-related clearance, demolition, or construction activities commence.



If any CEQA impact conditions are met by the project’s effects on historic properties, mitigation measures are recommended for avoidance, to minimize impacts, or to provide balanced compensation for adverse effects. See Sections 5.0 and 6.0 for an evaluation of project effects and impacts on those properties, and Section 5.0 for recommended mitigation measures.

**3.1.2.2 California Register of Historical Resources**

Under California PRC Section 5024.1, the CRHR was established to serve as an authoritative guide to the state’s significant historic and archeological resources. A resource is considered historically significant if it meets the criteria for listing in the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852). For a property to be considered eligible for listing in the CRHR, it must be found to be significant under at least one of the following four criteria by the State Historical Resources Commission:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage
- Is associated with the lives of persons important in our past
- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
- Has yielded, or may be likely to yield, information important in prehistory or history

In addition to possessing one of the above-listed characteristics, to be eligible for listing in the CRHR, resources must retain “substantial” integrity to their period of significance. The seven aspects or qualities of integrity are the same as those applied to NRHP-eligible properties: location, design, setting, materials, workmanship, feeling, and association.

The CRHR also includes properties which:

- Have been determined eligible for listing in, or are listed in the NRHP.
- Are registered State Historical Landmark No. 770 or higher (including all consecutively numbered landmarks above Number 770 [see Section 3.1.2.3]).
- Are points of historical interest that have been reviewed and recommended to the State Historical Resources Commission for listing (see Section 3.1.2.4).
- Are City- and County-designated landmarks or districts (see Section 3.1.3). Historic Districts are a concentration of historic buildings, structures, objects, or sites within precise boundaries that share a common historical, cultural, or architectural background. Individual resources within a historic district may



lack individual significance but be considered a contributor to the significance of the historic district.

- Are identified as significant in a historic resource survey and meet the following criteria:
  - 1) The survey has been or will be included in the State Historical Resources Inventory.
  - 2) The survey and the survey documentation were prepared in accordance with [OHP]... procedures and requirements.
  - 3) The resource is evaluated and determined by the office to have a significance rating of category “1–5” on California Department of Parks and Recreation (DPR) series 523 form.
  - 4) If the survey is five or more years old at the time of its nomination for inclusion in the California Register, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource (PRC Section 5024.1[g]).

### **3.1.2.3 California Historical Landmarks**

Designated California Historical Landmarks (CHLs) are numbered sequentially as they are listed by the State Historical Resources Commission. CHLs numbered 770 and higher are automatically listed in the CRHR. According to PRC Section 5031(a), to be eligible for California Historical Landmark designation, a property must be of “statewide historical importance” and must demonstrate its statewide significance by meeting one of the following three requirements:

- The property is the first, last, only, or most significant historical property of its type in the region. The regions are Southern California, Central California, and Northern California. If a property has lost its historic appearance (integrity), it may be listed as a site.
- The property is associated with an individual or group having a profound influence on the history of California. The primary emphasis should be the place or places of achievement of an individual. Birthplace, death place, or place of interment shall not be a consideration unless something of historical importance is connected with his or her birth or death. If a property has lost its historic appearance (integrity) it may be listed as a site.
- The property is a prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or...it is



one of the more notable works, or the best surviving work in a region of a pioneer architect, designer, or master builder.

**3.1.2.4 California Points of Historical Interest**

California Points of Historical Interest include “sites, buildings, features, or events that are of local (city or county) significance and have an anthropological, cultural, military, political, architectural, economic, scientific, or technical, religious, experimental, or other value.” Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. To be designated, a property must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

**3.1.3 Local**

**3.1.3.1 City of Los Angeles**

The City of Los Angeles designates local landmarks (Historic-Cultural Monuments) and historic districts, through Ordinance Number 175891, Section 12.20.3, of the Los Angeles Municipal Code.

NEPA and CEQA guide lead agencies to incorporate local designations in the review and evaluation of project effects. Therefore, designated Historic-Cultural Monuments and Historic Preservation Overlay Zones (HPOZs) are considered in the affected environment and are included in identified properties. Because Los Angeles is a Certified Local Government, locally designated properties have “presumptive significance” under CEQA. If project alternatives are expected to affect locally designated historic properties, mitigation measures are recommended, as for CEQA, to avoid, minimize, and mitigate those effects.

**3.1.3.2 City Designation**

As described, local landmarks in Los Angeles are designated as “Historic-Cultural Monuments (HCM).” To be eligible for separate designation, properties must meet the criteria described in City of Los Angeles Administrative Code Section 22.130:

- any site (including significant trees or other plant life located thereon) building or structure of particular historic or cultural significance to the City of Los Angeles



- such as historic structures or sites in which the broad cultural, economic or social history of the nation, State or community is reflected or exemplified
- or which are identified with historic personages ... the main currents of national, State or local history
- or [identified] 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 a notable work of a master builder, designer, or architect whose individual genius influenced his age.

Properties are usually submitted to City of Los Angeles Office of Historic Resources staff for review, and if considered are presented to the Cultural Heritage Commission (Commission). If approved, the Commission makes a recommendation to a preliminary committee for its review and later to the City Council for designation. Local landmark eligibility is not considered under CEQA; only designated properties are considered eligible for CRHR listing.

There are three properties within the APE that have been previously designated as HCMs: the Holiday Bowl (HCM No. 688, APE Map No. 3-1), Leimert Plaza Park (HCM No. 620, APE Map No. 5-20) and Maverick's Flat (HCM No. 679, APE Map No. 4-34).

### **3.1.3.3 Historic Preservation Overlay Zones**

The Historic Preservation Overlay Zone (HPOZ) Ordinance for the City of Los Angeles was adopted in 1979:

to identify and protect neighborhoods with distinct architectural and cultural resources.... HPOZs, commonly known as historic districts, provide for review of proposed exterior alterations and additions to historic properties within designated districts.

City of Los Angeles Ordinance Number 175891, in Section 12.20.3 of the Los Angeles Municipal Code, states the following regarding HPOZ eligibility:

no building, structure, Landscaping, or Natural Feature shall be considered a Contributing Element unless it is identified as a Contributing Element in the historic resource survey for the applicable Preservation Zone. Features designated as contributing shall meet one or more of the following criteria:

- 1) adds to the Historic architectural qualities or Historic associations for which a property is significant because it was present during the period of significance, and possess Historic integrity reflecting its character at that time; or



2) owing to its unique location of singular physical characteristics, represents an established feature of the neighborhood, community or city; or

3) retaining the building, structure, Landscaping, or Natural Feature, would contribute to the preservation and protection of an Historic place or area of Historic interest in the City.

There are no HPOZs located within the project APE.

#### **3.1.3.4 City of Inglewood**

##### **Historical and Archaeological Resources**

The Inglewood Municipal Code defines a “historic structure” in Section 10-181 as any structure that is:

- listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
- individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
- individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states with approved programs.

Two properties within the APE are considered locally designated or eligible to be designated by the City of Inglewood: the Inglewood Park Cemetery (APE Map No. 11-3) and St. John Chrysotom Church and St. John Chrysostom School (APE Map No. 13-2).

### **3.2 Area of Potential Effect**

The project-specific APE (Appendix A) was established through consultation between the lead federal agency, the FTA, the lead CEQA agency, Los Angeles County Metropolitan Transportation Authority (Metro), SHPO, and other consulting parties, in accordance with 36 CFR 800.16(d). Section 106 defines an APE as:

the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential



effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The project APE was delineated to ensure identification of significant cultural resources that may be directly or indirectly affected by the project, and are listed in or eligible for inclusion in the NRHP and/or CRHR. The APE was established using methodology consistent with those of previous Metro projects.

The proposed project APE was determined by consensus between the undertaking's lead federal agency (the FTA), with consulting parties, led by the SHPO. The California Office of Historic Preservation (OHP) defines the boundaries within which properties are identified and evaluated for their historic significance and effects of the proposed project are analyzed. The project APE was submitted on February 18, 2011 and is pending approval. Correspondence between FTA and SHPO for this project is included in Appendix E.

For historic and architectural resources, the proposed indirect APE generally includes all parcels adjacent to both sides of the proposed project alignment, including stations, subway or open-cut construction areas, and areas proposed for acquisition. In addition, the indirect APE includes areas that may be subject to potential project-related effects, including visual or audible effects, and settlement effects that may result from construction or implementation of the proposed project. For extremely large parcels (i.e., Centinela Park, Inglewood Park Cemetery, and Los Angeles International Airport) containing large building and structure complexes, the indirect APE extends 200 feet from the direct APE and contains only the front row of buildings and structures.

For archaeological and paleontological resources, the proposed direct APE includes the proposed at-grade and underground right-of-way or areas of direct ground disturbance. The direct APE also includes areas with permanent site improvements and areas for staging and temporary construction activities.

In order to anticipate effects that may result from both above-ground construction and implementation and subterranean construction and implementation, the proposed vertical APE extends from approximately the existing ground surface to 25 feet above the existing ground surface and approximately 80 feet below the existing ground surface.

Because the proposed project is expected to be constructed by 2018, identification efforts focused on parcels containing improvements constructed in or before 1968 (2018 – 50 years = 1968), that retained sufficient integrity to warrant significance consideration. Those parcels that were not significantly altered and found to lack integrity were evaluated for NRHP and CRHR eligibility as part of the project identification phase, and all previously identified historic properties and historical resources were noted.

### **3.3 Local Historical Group/Local Government Coordination**

Metro's representative, SWCA Environmental Consultants (SWCA), sent letters via U.S. mail to 14 local government, local historic preservation advocacy, and history advocacy groups to request information regarding historical resources that may be located within the project APE. The initial letters were mailed on July 2, 2010, and described the



proposed project and its related APE, and included location maps. Due to project delays, SWCA sent a second series of nearly identical letters to these contacts on January 7, 2011 (Appendix C). SWCA followed up with each group via telephone and/or email between January and February, 2011, and made subsequent follow-up efforts, as necessary.

SWCA received seven responses to these contact efforts (Table 3-1). Two groups and one agency stated that they had no information on historical resources within the APE. One group communicated its concerns regarding Dorsey High School, which is not in the APE. Two agencies provided information on known historical resources within the APE. One historic preservation advocacy group requested to have the information resent, but provided no further comment. Results of the consultation are described in detail in Table 3-1. Consultation regarding identification, effects, and mitigation will be ongoing, as part of this project’s Section 106 conformance.

**Table 3-1. Coordination with Local Groups**

<b>Local Group</b>	<b>Letter Sent</b>	<b>Reply Date</b>	<b>Follow-up</b>	<b>Results</b>
<b>City of Los Angeles Office of Historic Resources</b> Department of City Planning 200 N. Spring Street, Rm 620 Los Angeles, CA 90012 Attn: Ken Bernstein, Manager	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	7/15/2010	Various follow-up throughout January and February 2011.	07/15/2010: Ms. Janet Hansen, Deputy Manager of the OHR, contacted SWCA architectural historian Shannon Carmack. Ms. Hansen stated that work within the APE falls within the boundaries of the current Year 1 boundary for SurveyLA project. Ms. Hansen stated that the City may be able to share those results when they are ready, however they will not be finished for some time.  January–February 2011: Ms. Carmack contacted Ms. Hansen throughout the months of January and February to discuss the preliminary data for properties within the APE.  No further action necessary.
<b>Los Angeles Conservancy</b> 523 W. Sixth Street, Suite 826 Los Angeles, CA 90014 Attn: Acting Director of Advocacy	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Spoke with Mr. Adriane Fine via telephone.	02/16/2011: Mr. Fine said he would review the letter and maps once again and call if he had any information. He asked that we email him the letter and maps in case he misplaced them. SWCA emailed him the information.  No further action necessary.





<b>Local Group</b>	<b>Letter Sent</b>	<b>Reply Date</b>	<b>Follow-up</b>	<b>Results</b>
<b>Natural History Museum</b> 900 Exposition Boulevard Los Angeles, CA 90007  Attn: William D. Estrada, Ph.D., Curator of California and American History and Chair of the History Department	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message on machine.	No response.  No further action necessary.
<b>California African American Museum</b> 600 State Drive Los Angeles, CA 90037 Attn: Charmaine Jefferson, Executive Director	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Spoke with Ms. Jefferson via telephone.	02/16/2011: Ms. Jefferson stated ongoing concern about Dorsey High School with regard to any above-ground or underground activity nearby or within the school property. (Note: this property is not within the APE)  No further action necessary.
<b>Los Angeles Railroad Heritage Foundation</b> 1500 W. Alhambra Road Alhambra, CA 91801 Attn: Josef K. Lesser, President	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Spoke with Mr. Lesser via telephone.	02/08/2011: Mr. Lesser thanked us for calling but said he had no archival material regarding resources within the project area.  No further action necessary.
<b>Historical Society of Southern California</b> P.O. Box 93487 Pasadena, CA 91109 Attn: Patricia Adler-Ingram, Ph.D., Executive Director	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Spoke with Ms. Adler- Ingram via telephone.	02/08/2011: Dr. Adler-Ingram thanked us for calling but said she had no knowledge of special historical resources in the project area.  No further action necessary.
<b>Historical Society of Centinela Valley</b> 7634 Midfield Avenue Los Angeles, CA 90045 Attn: Claydine Burt	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: unable to leave; message "mailbox full". 02/08/2011: unable to leave; message "mailbox full".	No response.  No further action necessary.
<b>Los Angeles City Historical Society</b> P.O. Box 41046 Los Angeles, CA 90041 Attn: Ann Shea, President	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message on machine.	No response.  No further action necessary.



Local Group	Letter Sent	Reply Date	Follow-up	Results
<b>City of Inglewood, Planning Department</b> One Manchester Boulevard Inglewood, CA 90301 Attn: Wanda Williams, Acting Building and Planning Director	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	02/07/2011	02/07/2011: Ms. Mindala Wilcox contacted Shannon Carmack, SWCA project manager, via email.	Ms. Wilcox provided a list of 22 cultural resources that are significant to the City of Inglewood via email.  No further action necessary.
<b>City of El Segundo, Planning and Building Safety</b> 350 Main Street El Segundo, CA 90245 Attn: Kimberly Christensen, AICP, Planning Manager	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message with receptionist.	No response.  No further action necessary.
<b>County of Los Angeles Department of Regional Planning</b> Advanced Planning Division 320 W. Temple Street, 13th Fl. Los Angeles, California 90012 Attn: Rose Hamilton, Deputy Director of Advanced Planning	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	02/16/2011	02/08/2011: Spoke with a man in the planning division. 02/16/2011: Left message on machine.	02/08/2011: He stated that Ms. Rose Hamilton no longer worked there but that he would make sure the letter got forwarded to the appropriate person and they would get back to us.  02/16/2011: SWCA received a phone call from an unnamed person stating that Mark Herwick is the person to contact regarding historic property information. She provided a phone number and email address. Emailed him the project information.  02/16/2011: SWCA received a letter from John Sanabria, Deputy Director of Advanced Planning, stating that the County did not have knowledge of potential historical resources within the project APE.  No further action necessary.
<b>Korean American Museum</b> 3727 W. 6th Street, Suite 400 Los Angeles, CA 90020-5112 Attn: Changmii Bae, Ph.D., Program Coordinator	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message on machine.	No response.  No further action necessary.



<b>Local Group</b>	<b>Letter Sent</b>	<b>Reply Date</b>	<b>Follow-up</b>	<b>Results</b>
<b>Pacific Railroad Society, Inc.</b> P.O. Box 80726 San Marino, CA 91118-8726 Attn: Pacific Railroad Society	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message on machine.	No response.  No further action necessary.
<b>West Adams Heritage Association</b> 2263 S. Harvard Boulevard Los Angeles, California 90018 Attn: John Patterson, President/Communications Committee	7/2/2010 via U.S. Mail 01/07/2011 via U.S. Mail	n/a	02/08/2011: Left message on machine. 02/16/2011: Left message on machine.	No response.  No further action necessary.



## **4.0 AFFECTED ENVIRONMENT**

The history and development of the LAX/Crenshaw Transit Corridor Project (the project) may be understood within the general context of its associations with the history and development of southwest Los Angeles. This historical overview of the project Area of Potential Effects (APE) is organized geographically along the linear route, from the northeast to the southwest, of the proposed Crenshaw/LAX Transit Corridor. The project APE traverses several distinct areas that are associated with the following historical themes: planned residential subdivisions in southwest Los Angeles (e.g., Leimert Park), commercial development along Crenshaw Boulevard, the history and development of the City of Inglewood and the Westchester area, and the development of the Los Angeles International Airport (LAX). Other broader historical influences include the ranchos established in the area during the Mexican period (1822–1848), local oil discoveries during the 1920s, and the expansion of the aviation industry and LAX in the post–World War II period.

### **4.1 Historical Overview: California and County of Los Angeles**

Post-contact history for the state of California generally is divided into three periods: the Spanish period (1769–1822), the Mexican period (1822–1848), and the American period (1848–present).

#### **4.1.1 Spanish Period (1769–1822)**

The first European account of the area that would become County of Los Angeles was by Portuguese navigator João Rodrigues Cabrilho (Juan Rodriguez Cabrillo, in Spanish), who led a Spanish expedition along the California coast in 1542–1543. Cabrillo noted the numerous campfires of the Tongva and thus named the area the “Bay of Smokes.” Spain’s presence in the region was intermittent for approximately the next 200 years. Then, because of the possibility of territorial encroachment by the British and Russians from the north, Governor of Baja California Gaspar de Portolá was instructed to lead a land–sea expedition to colonize Alta (upper) California in the 1760s (Chartkoff and Chartkoff 1984).

The beginning of Spanish settlement in California occurred in 1769 with a settlement at San Diego. Mission San Diego de Alcalá was the first of 21 missions that were established in Alta California between 1769 and 1823. On September 8, 1771, Fathers Pedro Cambón and Angel Somera established the Mission San Gabriel de Arcángel on the Rio de los Temblores (the San Gabriel River) near the present-day city of Montebello (Johnson et al. 1972). In 1775, the mission was moved to its current location in San Gabriel due to the repeated flooding of its first site. This mission marked the first sustained European occupation of the County of Los Angeles area. Mission San Gabriel, with its extensive land holdings that produced a bounty of cattle hides and tallow, went on to become the most prosperous of Alta California’s 21 missions (SWCA 2011).

On September 4, 1781, Governor Felipe de Neve granted the region’s first settlement, Nuestra Señora La Reina de Los Angeles, or the Pueblo de Los Angeles, with a vast territory covering approximately 28 square miles (Gumprecht 2001). During this period, Spain also deeded land grants or ranchos to prominent local citizens and soldiers. Ranchos typically supported large agricultural operations, such as the raising of sheep or



cattle. Early agricultural products of the region included corn, pumpkins, wheat, a variety of tree fruits, and wine (SWCA 2011).

#### **4.1.2 Mexican Period (1822–1848)**

The Mexican period, which commenced when news of the revolution against the Spanish crown reached California in 1822, was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada Mountains. After Mexico won its independence from Spain in 1822, the territories of California were transferred to Mexican jurisdiction. The ensuing decades of Mexican control lasted until 1848 when California joined the United States. Agriculture would remain the area's primary industry during the Mexican period well into the mid-1880s when subdivision and sale of many large ranchos accelerated and many were developed for residential uses (SWCA 2011).

The Mexican period ended in early January 1847. Mexican forces fought combined U.S. Army and Navy forces in the Battle of the San Gabriel River on January 8 and in the Battle of La Mesa on January 9. On January 10, leaders of the pueblo of Los Angeles surrendered peacefully after Mexican General Jose Maria Flores withdrew his forces. Shortly thereafter, newly appointed Mexican Military Commander of California Andrés Pico surrendered all of Alta California to U.S. Army Lieutenant Colonel John C. Fremont in the Treaty of Guadalupe Hidalgo (Nevin 1978).

#### **4.1.3 American Period (1848–present)**

With the signing of the Treaty of Guadalupe Hidalgo in 1848 that ended the Mexican–American War, California became a territory of the United States. Statehood was achieved in 1850. The discovery of gold in 1848 at Sutter's Mill near Sacramento and the resulting Gold Rush era influenced the history of the state and the nation. The rush of tens of thousands of people to the gold fields also had a devastating impact on the lives of indigenous Californians, with the introduction and concentration of diseases, the loss of land and territory (including traditional hunting and gathering locales), violence, malnutrition, and starvation. Thousands of settlers and immigrants continued to pour into the state, particularly after the completion of the transcontinental railroad in 1869 (SWCA 2011).

Settlement of the Los Angeles region continued into the early American period. The County of Los Angeles (County) was established on February 18, 1850, as one of 27 counties established in the months prior to California becoming a state. Many ranchos in the County were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns. Nonetheless, ranching retained its importance, and by the late 1860s, Los Angeles was one of the top dairy production centers in the country (Rolle 2003). By 1876, the County had a population of 30,000 (Dumke 1944).



By the 1880s, railroads had established networks throughout the region, resulting in fast and affordable shipment of goods, as well as a means to transport new residents to the booming area (Dumke 1944). New residents included many health-seekers drawn to the area by the fabled climate (Baur 1959). In the early to mid-1900s, population growth accelerated due to industry associated with both world wars, as well as emigration from the Midwest “dust bowl” states during the Great Depression. The County became one of the most densely occupied areas in the United States. The County’s mild climate and successful economy continued to draw new residents in the late 1900s, with much of the County transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood’s development into the “entertainment capital of the world,” and southern California’s booming aerospace industry, were key factors in the growth of the Los Angeles metropolitan area (SWCA 2011).

## **4.2 Early History of the Area of Potential Effect**

The area of the proposed Crenshaw/LAX Transit Corridor traverses portions of four ranchos that were established during the Mexican period: Rancho las Cienegas (including portions of Crenshaw Boulevard), Rancho Cienega O’Paso de la Tijera (Leimert Park, Baldwin Hills), and Rancho Aguaje de Centinela/Rancho Sausal Redondo (Inglewood, Westchester, and LAX).

### **4.2.1 Rancho Las Cienegas**

Encompassing the western part of present-day Palms and the eastern portion of West Adams/Arlington Heights, the 4,439-acre Rancho Las Cienegas was granted to Januario Avila in 1823. Subdivision of the area began in the 1880s (Historic Resources Group 1990; Kielbasa 1996).

### **4.2.2 Rancho Cienega O’Paso de la Tijera**

In 1843, this 4,481-acre area was granted in 1843 to Vicente Sanchez. After 1846, a grandson of Vicente Sanchez, Tomas Avila Sanchez, took control of the property. In 1860, the younger Sanchez was recorded as the Sheriff of County of Los Angeles. Tomas Avila Sanchez owned the property until 1875, when he sold his land holdings to a group of investors. Later that same year, E.J. “Lucky” Baldwin acquired a large portion of the former Rancho Cienega O’Paso de la Tijera for \$60,000. During the Southern California real estate boom of the 1880s, many Mexican-era land grants were subdivided and sold. However, Mr. Baldwin, for whom Baldwin Hills were named, continued to use the property for agriculture and cattle grazing. He owned the land until his death in 1909. The area, parts of which remained under the ownership of the Baldwin family for decades, was largely undeveloped until the late 1930s (Historic Resources Group 1990; Rogers 1957).

### **4.2.3 Rancho Aguaje de Centinela / Rancho Sausal Redondo**

In 1822, a military commander at Santa Barbara granted permission for Antonio Ignacio Avila to settle at Rancho Sausal Redondo. Mr. Avila would eventually claim the entirety of present-day Inglewood as Rancho Sausal Redondo, a claim that was later disputed by his neighbor, Ygnacio Machado. Mr. Machado’s property was a homestead he settled around 1833, which was located in the area of Centinela Creek directly to the west of Mr. Avila’s home site. Mr. Machado cultivated a vineyard and grew corn in this area, which was later known as the Rancho Aquaje de Centinela. Present-day Inglewood, the



Westchester area, and the Los Angeles International Airport, lie within the boundaries of the two ranchos. By 1859, both ranchos were controlled by Joseph Lancaster Brent. Mr. Brent sold them to Sir Robert Burnett of Crathe's Castle, Scotland, in 1860. In 1873, Mr. Burnett leased the land to Daniel Freeman for \$7,500 per year. Mr. Freeman raised horses and sheep at the property and planted hundreds of lemon, olive, almond, and lime trees. During the severe drought of 1875–1876, Mr. Freeman converted the property into a barley field. In 1885, after 12 years as a lessee, Mr. Freeman acquired the deed. In 1887, he sold large portions of his land to the Centinela-Inglewood Land Company, who acquired it for the purpose of establishing the Town of Inglewood (Historic Resources Group 1990; Rogers 1957).

## **4.3 American Period**

### **4.3.1 Crenshaw Boulevard**

The project APE traverses south along Crenshaw Boulevard from the southern boundary of Baldwin Hills to Florence Avenue and the border of the City of Inglewood.

Early roadways in Los Angeles often developed when vast ranchos were subdivided into smaller farms and residential communities. East-west thoroughfares typically connected urbanizing areas with the ocean and downtown Los Angeles. North-south oriented roads, such as Crenshaw Boulevard, tended to connect subdivisions with other subdivisions. Real estate development during the early part of the twentieth century fueled the expansion of the area's various railway systems. Revenue for the transit lines was created by the movement of goods as well as passengers, and railway rights-of-way offered the additional benefit of providing utility easements to real estate developments (Metropolitan Transit Authority 2010).

In 1902, Henry E. Huntington acquired the Santa Fe Railroad line and electrified it, which provided 40-mile-per-hour transportation from downtown Los Angeles through Inglewood in enclosed electric train cars that were painted green, known colloquially as the Green Car Line. The line followed a route south along Crenshaw Boulevard, southwest along Leimert Boulevard, and west along Martin Luther King, Jr. Boulevard. By providing ready access to downtown Los Angeles and other parts of the region, the railroad line provided a boon to the development of communities along the project APE, including Leimert Park, Baldwin Hills, and Inglewood.

Originally known as Angeles Mesa, the neighborhood surrounding Crenshaw Boulevard (formerly Angeles Mesa Drive) in the vicinity of Slauson Avenue supported a thriving residential area with numerous civic uses in the early years of the twentieth century. In 1911, St. Mary's Academy (demolished), a Mission-style building constructed by the Sisters of St. Joseph, encompassed 20 acres at the corner of Crenshaw Boulevard and Slauson Avenue. In 1914, the Angeles Mesa area received its first school for its 81 students, a one-room schoolhouse built by the County of Los Angeles (demolished), which was located at 52nd Street between Fourth and Fifth Avenues. On June 13, 1920, Angeles Mesa Drive was renamed Crenshaw Boulevard (Rogers 1957).

During the 1930s, the construction of several civic buildings in the midst of the Depression era demonstrates the Crenshaw Boulevard area's continued commercial viability despite challenging economic conditions. Civic buildings constructed in the 1930s in the vicinity of Crenshaw Boulevard included a new post office near 54th Street



and Slauson Boulevard; to the north toward Baldwin Hills, a new church at Martin Luther King, Jr. Boulevard and Fourth Avenue; and Dorsey High School between Exposition Boulevard and Rodeo Road. Streetscape improvements included new street lights ordered for Crenshaw Boulevard from Exposition Boulevard to 60th Street at a cost of \$23,460 in 1937 (Rogers 1957).

In the early 1950s, a series of published articles titled “Incredible Crenshaw” cited the Crenshaw Boulevard area’s phenomenal increase in value from \$250 to \$300 per acre in 1900 to \$16,000 per acre in 1952. During this period, the Crenshaw area supported “seven grammar schools, 89 churches, two junior highs, one senior high, five private schools, and 25 clubs (Rogers 1957).” Commercial development continued along Crenshaw Boulevard, from 54th Street south to the vicinity of Florence Avenue.

During the late 1950s, the Crenshaw Boulevard area was home to a large Japanese-American population that included a large concentration of neighborhood shops, restaurants, banks, groceries, and entertainments that supported the Japanese-American community. One example was the Holiday Bowl (City of Los Angeles Historic-Cultural Monument No. 688, demolished)—a bowling alley and center of Japanese-American community life in Crenshaw—that was located at 3730 South Crenshaw Boulevard. The Japanese-American population located in Crenshaw began to disperse after the Watts civil disturbance of 1965 and the devastating flood that occurred as a result of the 1963 Baldwin Hills Dam collapse, which flooded neighborhoods along La Brea Avenue and Jefferson and La Cienega Boulevards. Today, Crenshaw Boulevard is composed of a mix of commercial properties that date primarily to the post–World War II era (Pool 2003; Venice Japanese Community Center 2011).

#### **4.3.2 Leimert Park**

The northern terminus of the project APE is the intersection of Crenshaw and Exposition boulevards. In the flats located to the east of the Baldwin Hills, Leimert Park is an early example of a planned residential subdivision. Leimert Park is roughly bounded by Rodeo Road on the north, Fourth Avenue and Roxton Avenue on the east, Vernon Avenue on the south, and Crenshaw Boulevard on the west.

From the 1880s through the 1910s in southwest Los Angeles, many former ranchos were subdivided for residential uses by development companies. Subdivisions, such as Leimert Park, would become a predominant residential property type during the 1920s, 1930s, and 1940s and would quickly transform the landscape. Community amenities and civic buildings—including post offices, schools, libraries, and police stations—were built to support the new neighborhoods. The associated development of local shops, parks, theaters, club buildings, religious institutions, and hospitals served a wide range of neighborhood commercial, social, and community functions (Rogers 1957).

In 1927, the Walter H. Leimert Company purchased an approximately 1-square-mile section of the Crenshaw area of Los Angeles, located north of Vernon and west of Fourth Avenue to Leimert Boulevard, from Anita Baldwin, the daughter of E. J. “Lucky” Baldwin, to construct the Leimert Park subdivision. Leimert Park was originally envisioned as an upscale community of tree-lined streets. The popular subdivision sold quickly during 1927 and 1928. The subdivision’s site plan, developed by Franz Herding, incorporated a diagonal boulevard (Leimert Boulevard) dedicated to commercial uses. The architecture of Leimert Park had a generally uniform appearance for the entirety of the development,





which included a variety of residential property types in the Spanish Colonial and Mission Revival styles and offered amenities such as a golf course and airstrip. The heart of the neighborhood was Leimert Park Village, an Art Deco–inspired neighborhood shopping area located at 43rd Place and Degnan Boulevard. In 1929, developer Walter H. Leimert donated 1 acre for use as a park called Leimert Plaza to the City of Los Angeles, which is known today as Leimert Plaza Park (City of Los Angeles Historic-Cultural Monument No. 620). By the late 1940s, Leimert Park was “filled with attractive homes, apartments, and shops” (Rogers 1957).

By offering middle- to upper-class residents the possibility of home-ownership and excellent public transit (provided by the Los Angeles Railway “E” yellow car line that connected the area with the rest of rapidly urbanizing city of Los Angeles), planned communities such as Leimert Park grew rapidly in popularity and created concentrations of population and commercial capacity that, in ensuing years, would support the development of future commercial corridors and neighborhood shopping areas along Crenshaw Boulevard (Los Angeles Times [LAT] 1927, Rogers 1957).

With the lifting of restrictive residential covenants in the 1950s, African-Americans began to settle in the Leimert Park area, prompting residents to form an organization called Crenshaw Neighbors that was dedicated to promoting stable neighborhood integration during the 1960s. In 1966, the Playboy Club–themed Maverick’s Flat nightclub, known as the “Apollo Theater of the West Coast,” was one of the nation’s top venues for rhythm and blues and soul music (City of Los Angeles Historic-Cultural Monument No. 679). By the 1970s, Leimert Park Village was lined with trendsetting art galleries, restaurants, and nightclubs (Maverick’s Flat 2011). Leimert Park has a long-standing association with African-American cultural life in Los Angeles (Rivera 2000; Sahagun 2010).

### **4.3.3 Baldwin Hills**

Located to the south and west of Leimert Park, Baldwin Hills is an approximately 5-square-mile area, generally bounded by Rodeo Road to the north, Crenshaw Boulevard to the east, Slauson Avenue to the south, and La Cienega Boulevard to the west.

Baldwin Hills is located on the former land holdings of the Rancho Cienega O’Paso de la Tijera. The rancho is associated with its longtime owner and Baldwin Hills namesake, E. J. “Lucky” Baldwin, a horse breeder, hotelier from San Francisco, and developer of Santa Anita racetrack who owned the property from 1873 to 1909. An early inroad into this primarily rural area occurred in 1913, when the Los Angeles Investment Company, a development company with substantial holdings in southwest Los Angeles, proposed the construction of a “picturesque and commodious” new landmark building, a community center to support a new residential subdivision, the Baldwin Hills Tract, which was developed in the Baldwin Hills (LAT 1913a). Another early tract in the Baldwin Hills was the New College Tract. In 1913, 60 bungalows were under construction in the New College Tract. Plans for stores, churches, schools, tennis courts, and associated gas, electricity, water, and telephone infrastructure were underway (LAT 1913b).

Oil was discovered in Baldwin Hills in 1924. The discovery was developed for commercial use by Standard Oil of California. During this era, large fields of oil derricks and oil field laborer housing were often found interspersed among the residences in Baldwin Hills and in other parts of southwest Los Angeles. By the early 1970s, there were more than 500 oil wells producing in excess of 400 million barrels of crude oil per year.



The discovery, known as the Inglewood oil field, is composed today of approximately 1,000 acres and 1,600 wells, making it one of the nation's largest contiguous urban oil fields (City of Los Angeles, Department of City Planning 1998; The History of the Inglewood Oil Field 2011).

The Baldwin Hills area continued to be used primarily for agriculture, oil exploration, cattle grazing, and upscale residential subdivisions, such as the View Park Tract on the eastern slopes of the Baldwin Hills, with its residences inspired by Italian villas and English cottages, remaining largely undeveloped until the 1930s (LAT1913c; 1926). In the late 1930s and early 1940s, the area between Santa Barbara Avenue (now called Martin Luther King, Jr. Boulevard) and Exposition Boulevard from Third Avenue west to La Brea Avenue was developed. Another early residential development was the Windsor Hills tract, located on a hilltop north of Slauson Avenue between Eileen and La Brea Avenues, which arrived in 1937 (City of Los Angeles, Department of City Planning 1998).

In 1941, construction began at the 627-unit Baldwin Hills Village, an 80-acre superblock located near the foot of the Baldwin Hills (Rogers 1957). Baldwin Hills Village, renamed the "Village Green" in the 1970s after its conversion to condominiums, was a forward-thinking experimental apartment complex designed by urban planner and architect Clarence Stein. Distinguished by its lack of through-streets and lush garden landscaping, Baldwin Hills Village was inspired by the garden suburb / new town of Radburn, New Jersey (1929), which was designed from plans developed by Clarence Stein and Henry Wright. Village Green has individual apartment units connected by extensive parkways that surround a communal open space located in the center of the development (Pitt and Pitt 1997; Village Green Owners Association 2011).

With its well-established residential population, commercial expansion in the Baldwin Hills area soon followed. The portion of Crenshaw Boulevard that is located to the east of Baldwin Hills transitioned into an important commercial center in the post-World War II era. Located along the project APE at the intersection of Crenshaw Boulevard and Martin Luther King, Jr. Boulevard, the Crenshaw Regional Shopping Center (today, the Baldwin Hills Crenshaw Plaza Mall) was constructed in 1947. One of the first shopping malls in the United States, this shopping center spurred the development of other shopping venues along the Crenshaw corridor and was a premier shopping destination. In a demonstration of the area's desirability during this era, two notable department stores, The May Company and Broadway Department Store, opened competing establishments at the corner of Crenshaw Boulevard and Martin Luther King, Jr. Boulevard, firmly establishing the intersection as a prominent nexus of retail activity (Rogers 1957). In 1948, a 16,500-square-foot Owl Drug Company store opened at the Broadway-Crenshaw Shopping Center at 4145 Crenshaw Boulevard (Longstreth 1999).

As was true in other areas along the APE, prior to World War II, homeownership in Baldwin Hills was originally limited to whites as a result of race-restrictive covenants. With the loosening of these covenants in the early 1950s, African-Americans began to settle in the Baldwin Hills. The solidly upper-middle class area attracted a large number of successful African-American residents, including entertainers, entrepreneurs, and doctors (City of Los Angeles, Department of City Planning 1998; Pollard-Terry 2006; The Neighborhood Project: Baldwin Hills, 2011).



#### 4.3.4 Inglewood

Near the intersection of Florence Avenue and Crenshaw Boulevard, the project APE joins the existing Los Angeles Railway (LARy) line, which was originally developed by Moses Sherman in the late 1890s. The project APE traverses the City of Inglewood along the LARy line to the Los Angeles International Airport, until its terminus at the intersection of Aviation Boulevard and the I-105 Freeway.

The City of Inglewood originated in 1887, when the Centinela-Inglewood Land Company was organized with the intent to establish the new Town of Inglewood. After purchasing acreage from landowner Daniel Freeman, surveying the area, and laying water pipes, the Centinela-Inglewood Land Company offered a variety of lots for residences, businesses, and orchards, ranging from \$200 to \$1,500 an acre. An early advertisement touted the numerous benefits of living in Inglewood:

Inglewood is ready to welcome the home-seeker. She offers many attractions that are not to be found elsewhere. . . . Her streets are wide thoroughfares, well graded and lined with shade trees. . . . She is the center of a farming region comprising about eleven thousand acres of very fertile soil. She is going to grow into a large, beautiful, and prosperous town. . . . Town lots and farms in and near Inglewood are to be bought cheap today. They will never be cheaper, for Inglewood is not a town on paper. (Robinson 1947)

The new Town of Inglewood received an important boost with the development of a Santa Fe Railroad line from Los Angeles to Redondo Beach, which was completed in 1888. Typically, early public transportation in Los Angeles consisted of horse-drawn cars and cable railways, and these local transit franchises were largely supported by speculators and real estate developers who sought to provide potential homeowners with fast, convenient access to real estate parcels. Although real estate in the area quickly escalated in value, many of these transit lines failed to generate a profit and eventually failed (Metropolitan Transit Authority 2010).

In 1890, a banker from Phoenix named Moses Sherman acquired several of the failing transit companies and, in an effort to reduce operating costs, converted them to electric power. Initially, Sherman named the combined transit companies the Los Angeles Consolidated Electric Railway, but by 1894, he restructured the venture and renamed it the Los Angeles Railway. After three years, the transit company had failed to show a profit, and Sherman sold it to a syndicate controlled by Henry Huntington; in 1902, the syndicate became known as the Pacific Electric Railway Company (PE). Sherman then partnered with real estate developer Robert C. Gillis to develop several west-side rights-of-way; these were eventually combined to form the Los Angeles Pacific Railway, which was sold to Gillis's company, the Santa Monica Land and Water Company (Metropolitan Transit Authority 2010).

In 1912, the Southern Pacific Railroad bought out Huntington's interest in PE, which consisted mainly of longer, inter-urban lines; Huntington kept LARy, which by then ran 836 cars on 173 miles of track, mostly on local lines north of 116th Street in Los Angeles. Widespread adoption of the automobile had a profound effect on the development of Los Angeles and on the economic viability of local railroads. Automobile ownership increased from fewer than 20,000 registered automobiles in 1910 to nearly 800,000 in



1930. Highway construction increased proportionally, and highways competed with railways for space as well as passengers. Railways and local municipalities considered various ways to separate transit from roadways, but railways were not generating the revenue required to finance the building of a “rapid transit” system. The sole attempt at rapid transit during this period was the 1-mile-long subway, built in 1925, that ran from the center of downtown Los Angeles to Glendale Boulevard. The subway line operated until 1955 (Metropolitan Transit Authority 2010).

With the expansion and improvement of roadways in southern California, bus service ultimately proved to be more flexible and less expensive to operate than rail transit. Local rail transit operators began to introduce bus service to some of their routes in the early 1930s, and by 1940, most rail lines were losing money whereas many of the bus routes were operating profitably. In 1945, National City Lines bought the Huntington estate’s interest in LARy and created a consolidated bus interest called Los Angeles Transit Lines (LATL), and in 1953, PE was bought out by the newly organized Metropolitan Coach Lines. Metropolitan Coach Lines, along with the remaining assets of the LATL, were purchased with state funds in 1958; this formed the basis for the Los Angeles Metropolitan Transit Authority, the first publicly owned transit system in Los Angeles. By 1963, the last of the rail lines were formally abandoned and replaced by bus service (Metropolitan Transit Authority 2010). Today, a Burlington Northern Santa Fe railroad line runs alongside Florence Avenue in the project APE.

At the beginning of the twentieth century, the primary land uses in the sparsely settled Inglewood area consisted of occasional residential developments interspersed with orchards and farms. A large area located along the project APE, roughly from Crenshaw Boulevard to Centinela Avenue along Florence Avenue, is occupied by Inglewood Park Cemetery, which was established in 1905 by a group of businessmen who organized the Inglewood Park Cemetery Association. The first interment was made on July 20, 1906, just prior to the incorporation of the City of Inglewood on February 8, 1908. The cemetery would house many of the area’s original settlers. In 1913, the cemetery began to offer mausoleum entombment, which was considered an upscale means of burial for its era. Inglewood Park Cemetery constructed the first community mausoleum in California (City of Inglewood 2011; Inglewood Park Cemetery 2011).

The development of the Los Angeles Municipal Airport and the proximity of the LARy line provided an opportunity for Inglewood to expand its industrial capacity. Up until the late 1930s, Inglewood was the hub of an agricultural area. The advent of World War II and the need for wartime defense production transformed Inglewood, bringing new industrial activity and new workers and their families to the city (City of Inglewood 2011). With its strategic location directly east of the Los Angeles Municipal Airport, the Inglewood area attracted a variety of industries, which expanded considerably during the post-World War II era. By the late 1940s, Inglewood had a population of around 50,000. Known as the “harbor of the air,” Inglewood became a retail and manufacturing center and was closely associated with the burgeoning aircraft industry (Robinson 1947).

#### **4.3.5 Westchester**

The project APE traverses the eastern border of Westchester area of the City of Los Angeles along Aviation Boulevard. In the post-World War II era, the return of veterans and need for expanded aircraft and related industries during and after World War II created a tremendous demand for residential development. Title IV of the Housing Act



passed by the U.S. Congress in 1941 provided residential developers with incentives to construct smaller homes in proximity to wartime manufacturing operations. During the first year of the program, the Title IV loans in the State of California totaled approximately one-quarter of loans that were guaranteed nationwide.

In 1946, the community of Westchester, located directly to the north of Los Angeles Airport and west of Inglewood, was a master-planned community intended for an expected population of approximately 50,000 defense industry workers seeking defense industry jobs after World War II. At the time of its construction, Westchester was touted as a model community that exemplified the era's best practices in urban planning. With the aircraft industry serving as an economic foundation, a business district and an extensive network of roads and intersections were developed alongside moderately priced affordable residences (City of Los Angeles 2004; Hise 1997).

#### **4.3.6 Los Angeles International Airport**

To the south of the City of Inglewood, the project APE continues to follow the LARy line, turning sharply to the south in the area of Aviation Boulevard toward the Los Angeles International Airport.

Southwest Los Angeles was an early center of aviation and aerospace-related industries in the metropolitan area. The Crawford and Saunders School of Aviation near Venice and Washington Boulevards consisted of a hangar, workshop, and storage areas and predated Mines Field (established in 1928, now LAX) by at least 10 years. During the late 1920s and early 1930s, several small airfields were constructed in flat portions of the Baldwin Hills area, including the Ryan Airport, Lincoln Airport, Sperl Airport, Rogers Airport, and American Airport. Many of the airfields were relatively short-lived, and most airfields from this period were subsequently removed during the late 1930s to make way for residential development.

Located on the lands of the former Rancho Sausal Redondo and later the Andrew Bennett Ranch, the Los Angeles International Airport originated in 1928 when the property was leased by the City of Los Angeles as Mines Field, a small airfield that was selected as the site of the Los Angeles Municipal Airport. The airport's first permanent runway and two airplane hangars were constructed in 1929. The noted Los Angeles architectural firm of Gable and Wyant designed a Spanish Colonial Revival-style hangar, which was built by the Curtis-Wright Company as a flying school. Although the Los Angeles Airport attracted numerous aircraft manufacturers and skilled workers prior to World War II, the airport itself did not develop until after the end of the war. During the World War II years, Southern California served as a center of the nation's aircraft industry. The U.S. Army Air Corps used the Los Angeles Airport for airplane storage (City of Los Angeles 2004).

In the post-World War II era, the well-established presence of the aviation industry in southwest Los Angeles supported the development of associated businesses, ranging from aircraft manufacturing to airplane repair businesses and flying schools. All five of the nation's major commercial airlines established operations at the Los Angeles Airport in the years following World War II. In 1956, a collaboration of prominent Los Angeles architects developed a new master plan for a modernized Los Angeles Airport. The centerpiece of the design was the delicate and soaring "jet-age" Theme Building with a



restaurant and observation deck that would become the airport's identifying feature (City of Los Angeles 2004).

During the 1960s and 1970s, the project APE continued to grow and develop. Today, the area located along Aviation Boulevard has many examples of industrial buildings from the post-war era and contemporary buildings and structures associated with operations at the Los Angeles International Airport. The Proud Bird Restaurant, a theme restaurant with an aviation history focus, is located along Aviation Boulevard adjacent to LAX. The restaurant was founded by David C. Tallichet, Jr., in the mid-1960s. Known as a pioneer in the concept of the theme restaurant, Mr. Tallichet, a World War II bomber pilot and avid vintage aircraft collector, operated dozens of historically themed restaurants throughout the country (Nation's Restaurant News 2011; Nelson 2007; Martin 1985).

#### **4.4 California Historical Resources Information System Literature Search**

SWCA Environmental Consultants (SWCA) performed a cultural resources records search for the Regional Connector Transit Corridor project at the California Historical Resources Information System (CHRIS) South Central Coastal Information Center (SCCIC) on January 8, 2008 (see Appendix B). Subsequent requests for information were made in September and October 2010, and in February 2011. The records search included a review of the available documents and site records within a 0.25-mile radius of the project area. In addition to official maps and records, the following sources of information were consulted as part of the records search:

- National Register of Historic Places – Listed Properties (2006, updated to present)
- California Register of Historical Resources (2006, and review of minutes from State Historic Resources Commission meetings thereafter)
- California Inventory of Historical Resources (1976)
- California State Historical Landmarks (1996 and updates)
- California Points of Historical Interest (1992 and updates)
- Office of Historic Preservation Historic Property Directory and Determinations of Eligibility (2008)
- Survey of Surveys: A Summary of California's Historical and Architectural Resource Surveys (1986)
- Five Views: An Ethnic Sites Survey for California (1988)

The records search focused on obtaining information on private and public lands located within a 0.25-mile search radius of the project alignment.

##### **4.4.1 Previous Studies in 0.25-mile Radius of APE**

The SCCIC records search identified 49 prior cultural resources studies within a 0.25-mile radius of the direct APE. Fourteen of the studies are located within or include the direct APE and four studies are adjacent to the direct APE (Table 4-1).

**Table 4-1. Prior Cultural Resources Studies within a 0.25-mile Radius of the Direct APE**

SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 78	<i>Evaluation of the Archaeological Resouces and Potential Impact of the Proposed Construction of Route 105 Freeway from El Segundo to Norwalk</i>	Rosen, M.	1975	within
LA 168	<i>Draft Evironmental Impact Report in Accordance with Section 21151 of the Public Resources Code Storm Drain Bond Issue Project No. 9811, Inglewood Unit 1, Lines C and D</i>	Miller, F.	1976	outside
LA 2838	<i>Results of a Phase I Archaeological Study for the Proposed East Ventral Interceptor Sewer Project, East-West Alignment, Los Angeles County, California</i>	Wlodarski, R.	1993	within
LA 3438	<i>Report of Archeological Survey for L.A. Cellular Site #775, 4401 Wilshire Boulevard, Los Angeles, Los Angeles County</i>	Demcak, C.	1996	outside
LA 3501	<i>Archaeological Record Search and Impact Evaluation for the Los Angeles Wastewater Program Management (NOS-NCOS) Project, Los Angeles, California</i>	Dillon, B.	1990	outside
LA 3577	<i>Report of Archaeological Survey for L.A. Cellular Site #675.3, 4401 Crenshaw Boulevard, Los Angeles, Los Angeles County</i>	Demcak, C.	1996	within
LA 3583	<i>The Los Angeles Basin and Vicinity: A Gazetteer and Compilation of Archaeological Site Information</i>	Buckman, B.	1974	adjacent
LA 3587	<i>Prehistoric Native American Cultural Sites in the Santa Monica Mountians</i>	King, C.	1994	adjacent
LA 3673	<i>Historic Property Report North Outfall Relief Sewer (NORS)</i>	Anonymous	1987	adjacent
LA 3854	<i>Phase I Archaeological Survey of a Corner Lost at 4305 Degnan Boulevard, Los Angeles, California 90008</i>	Frierman, J.	1997	outside
LA 3912	<i>Historic Propety Survey Airport Boulevard – Manchester Avenue to N/O 98<sup>th</sup> Street</i>	Unknown	1977	outside
LA 3968	<i>Archaeological Assessment for Pacific Bell Mobile Services Telecommunications Facility LA022-03, 2349 Crenshaw Boulevard, City and County of Los Angeles, California</i>	McLean, D.	1998	outside
LA 4336	<i>Archaeological Investigations at 2441 Covina Hills Road – LA Cellular Facility No. 661.3 in the City of San Dimas, Los Angeles County California</i>	Singer, C., and D. Morrill	1997	outside
LA 4579	<i>Cultural Resources Assessment for Pacific Bell Mobile Services Facility LA 579-01, County of Los Angeles, California</i>	Duke, C.	1999	within
LA 4667	<i>Historic Resource Evaluation Report Exposition Boulevard Righ-of-Way Regional Bikeway Project, Los Angeles County, California</i>	Foster, J.	1999	within

SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 4836	<i>Pase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project</i>	Unknown	2000	within
LA 4910	<i>Paleontological and Archaeological Resources Reconnaissance of the Los Angeles International Airport (LAX) Property, Los Angeles County, California</i>	Raschke, R.	1995	outside
LA 5103	<i>Negative Archaeological Survey Report: 491601</i>	Inversion, G.	1999	outside
LA 5106	<i>Cultural Assessment for Pacific Bell Wireless Facility LA 922-01, County of Los Angeles, CA</i>	Lapin, P.	2000	outside
LA 5498	<i>Negative Archaeological Survey Report: To Widen the Northbound Route 405 Off-ramp at Manchester Blvd. from a Single Lane to Two Lanes with a Full Shoulder Retaining Wall</i>	Sylvia, B.	2001	within
LA 5709	<i>Review of Cultural Resource Assessment/Evaluation for Nextel Communications Site CA-7534-A, Los Angeles, Los Angeles County, California</i>	McKenna, J.	2002	outside
LA 5710	<i>Cultural Resource Assessment AT&amp;T Wireless Facility No. D432, Los Angeles County, California</i>	Duke, C.	2002	outside
LA 6230	<i>Cultural Resource Assessment AT&amp;T Wireless Services Facility No. D381C, Los Angeles County, California</i>	Duke, C.	2002	outside
LA 6231	<i>Cultural Resource Assessment AT&amp;T Wireless Services Facility No. 04115, Los Angeles County, California</i>	Duke, C.	2002	outside
LA 6233	<i>Historic Property Survey Report Interstate 405/Arbor Vitae Street Interchange, Inglewood</i>	Lortie, F.	1999	outside
LA 6239	<i>El Segundo Power Redevelopment Project, Cultural Resources (Archaeological Resources, Appendix J of Application for Certification)</i>	Wesson, A., B. Bass, and B. Hatoff	2000	outside
LA 6240	<i>El Segundo Power Redevelopment Project Historic Resources (Built Environment, Appendix K of Application for Certification)</i>	Bunse, M.	2000	outside
LA 6441	<i>Los Angeles New Primary Center No. 1 – Archaeological Records Check Summary</i>	McKenna, J.	2002	outside
LA 6445	<i>Proposed Verizon Wireless Facility: Mid-Wilshire (99900155) in the City and County of Los Angeles, California</i>	Mason, R.	2001	outside
LA 7064	<i>Widney/CA-8065D Telecommunications Facility, 4050 W. Washington Blvd., Los Angeles, CA Los Angeles County</i>	Jenson, C.	2004	outside
LA 7065	<i>Cultural Resource Assessment for AT&amp;T Services Facility Number R074.2, County of Los Angeles, California</i>	Duke, C.	2000	adjacent



SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 7178	<i>Report on Cultural Resources Mitigation and Monitoring Activities Flour/Level (3), Los Angeles Local Loops</i>	Unknown	2001	within
LA 7387	<i>Historic Cultural Resources Study: The Los Angeles Unified School District Central Region Elementary School No. 14, Located in the Echo Park Area of the City of Los Angeles, Los Angeles County, California</i>	McKenna, J.	2005	outside
LA 7402	<i>Records Search and Site Visit for Sprint Telecommunications Facility Candidate LA60XC408D (Florence Locust RL), 405 East Florence Avenue, Inglewood, Los Angeles County, California</i>	Bonner, W.	2004	within
LA 7411	<i>Madden/CA-6370A, 5441 Crenshaw Blvd, Los Angeles, CA, County of Los Angeles</i>	Thal, E.	2004	within
LA 7417	<i>A Phase I Archaeological Study for 7301-7315 Crenshaw Boulevard [Crenshaw Senior Apartment Complex], City of Los Angeles, Los Angeles County, California</i>	Wlodarski, R.	2004	outside
LA 7428	<i>Caltrans Historic Bridges Inventory Update: Timber Truss, Concrete Truss, and Suspension Briges</i>	McMorris, C.	2004	outside
LA 7713	<i>Cultural Resources Assessment for AT&amp;T Wireless Facility 950-004-132, Located at 8530 Airport Boulevard, City of Los Angeles, Los Angeles County, California</i>	Kyle, C.	2004	outside
LA 7715	<i>Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate EL-014-03 (Nuetrogena Property), 5705 West 98<sup>th</sup> Street, Los Angeles, Los Angeles County, California</i>	Bonner, W.	2005	outside
LA 7727	<i>Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate EL-0073-01 (West Blvd), 1101 West Boulevard, Los Angeles, Los Angeles County, California</i>	Bonner, W.	2005	outside
LA 7753	<i>Cultural Resources Records Search and Site Visit for T-Mobile Candidate LA03295B (Jamison Properties, Inc.), 4201 Wilshire Boulevard, Los Angeles, Los Angeles County, California</i>	Bonner, W.	2006	within
LA 7869	<i>Cultural Resources Records Search and Site Visit for Sprint Nextel Candidate CA7731D (La Colima), 404 East Florence Avenue, Inglewood, Los Angeles County, California</i>	Bonner, W.	2006	within
LA 7909	<i>Records Search and Field Reconnaissance for the Proposed Royal Street Communications LLC Wireless Telecommunications Site LA0259A (Bob's Vacuum), Located at 4500 West Pico Boulevard, Los Angeles, California 90019</i>	Wlodarski, R.	2006	outside

SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 8001	<i>Archaeological Survey Report Rosa Parks Villas, 2507 S. Bronson Avenue and 2440 Crenshaw Boulevard, Los Angeles, California</i>	Wood, C.	2006	outside
LA 8020	<i>Technical Report: Cultural Resources Los Angeles Rapid Transit Project “Metro Rail” Core Study</i>	Anonymous	1987	within
LA 8255	<i>Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II</i>	Arrington, C., and N. Sikes	2006	within
LA 8507	<i>Archaeological Survey Report for the Crenshaw Gateway Development, 4337-4347 West Adams Boulevard, Los Angeles, California</i>	Wood, C.	2007	outside
LA 8771	<i>Cultural Resources Records Search and Site Visit Results for Royal Street Communications. LLC Candidate LA0252C (5360 Crenshaw), 5360 Crenshaw Boulevard, Los Angeles, Los Angeles County, California</i>	Bonner, W.	2006	outside
LA 8779	<i>701 Hyde Park/LA-2639A, Cellular Antennas on Existing Rooftop, 701 E. Hyde Park Blvd., Inglewood, Los Angeles County, CA 90302</i>	Billat, L.	2007	outside

#### 4.4.2 Previously Recorded Built Environment Resources within the APE

The SCCIC records search revealed nine previously recorded built environment resources in the APE (Table 4-2). The majority of these resources were built in the early years of the twentieth century. Of these nine resources, four were listed in, determined eligible for listing in, or found eligible for listing in the National Register of Historic Places (NRHP) and three were found eligible for listing at the local level. The remaining two properties were found not eligible for listing in neither the NRHP nor the California Register of Historical Resources (CRHR). Of the nine previously recorded properties in Table 4-2, three resources were found in this survey to be no longer extant.

Table 4-2 lists previously identified properties, including those listed in, determined eligible for listing in, or found eligible for listing in the NRHP or CRHR, otherwise recognized by the State, or locally designated.

**Table 4-2: Previously Recorded Built Environment Resources within the APE**

Primary Number	APE Map No.	Property Historic Name	Address	California Register Status Code*	Recorded by and Year
19-175396	n/a property not extant	None noted	3602 Crenshaw Boulevard	6Y	McAvoy, C. 1992



Primary Number	APE Map No.	Property Historic Name	Address	California Register Status Code*	Recorded by and Year
19-169865	2-11	Riveria Sofa Beds	3651 Crenshaw Boulevard	5S2	City of Los Angeles Bureau of Engineering (BOE), 1983
19-157395, 19-169866	2-18	Family Savings and Loan	3683 Crenshaw Boulevard	5S2	City of Los Angeles BOE, 1983
19-174796	3-12	Crenshaw Square	3850–3860 S. Crenshaw Boulevard	6L	McAvoy, C. 1992
19-169867, 19-157396	3-14	Angelus Funeral Home	3874–3887 Crenshaw Boulevard	5S2	City of Los Angeles BOE, 1983
19-169868	n/a property not extant	Newberry Store	3969 Crenshaw Boulevard	3S	City of Los Angeles BOE, 1983
19-169869	4-3	May Company	4001 Crenshaw Boulevard	2S2	City of Los Angeles BOE, 1983
19-169870	4-4	Broadway Department Store	4101 Crenshaw Boulevard	3S	City of Los Angeles BOE, 1983
19-169871	n/a property not extant	F.W. Woolworth Co.	4107 Crenshaw Boulevard	3S	City of Los Angeles BOE, 1983

\* California Historical Resource Status Codes, refer to Appendix G.

## 4.5 Built Environment Field Survey

### 4.5.1 Built Environment Field Survey Methods

SWCA architectural historians conducted reconnaissance-level built environment surveys of the 8.5-mile-long APE in August 2010. They digitally photographed and researched each parcel in the direct and indirect APE containing improvements completed in or before 1968, using data from the Los Angeles County Office of the Assessor and other sources. Since construction year records are not entirely reliable, all properties in the APE were field-checked to verify whether or not their construction may have occurred more than 50 years from the anticipated project construction date of 2018. SWCA assumes that the historic status of properties listed in or determined eligible for the NRHP and/or the CRHR are unchanged, unless improvements were no longer extant or major alterations had recently been made as noted.

In December 2010, and again in January and February 2011, SWCA conducted intensive-level surveys of properties in the APE containing improvements completed in or before 1968 that required evaluation or re-evaluation for historical significance. SWCA reviewed



those properties in the field, photographed, and performed subsequent building permit and other research on properties that retained sufficient integrity to warrant evaluation for NRHP- and/or CRHR-eligibility. They intensively studied those properties to establish and research the identities of architects, builders, owners, and tenants, as well as events that may have taken place there, in order to make professional judgments regarding their historical significance.

**4.5.2 Built Environment Field Survey Results**

Within the APE, there were 440 properties containing buildings, structures, or objects that were constructed more than 50 years before the assumed project construction date of 2018. Of those 440 properties, 230 properties were found to be significantly altered, and no longer retain sufficient integrity to warrant consideration for NRHP or CRHR significance. These properties were photographed, but not recorded on DPRs or evaluated (Table 4-3).

**Table 4-3. Parcels with Pre-1968 Improvements in APE Exempted from Evaluation**

APE Map Page	Address	Assessor Parcel No.	Year Built
2	3515 Rodeo Rd.	5044-002-008	1968
2	3670 Crenshaw Blvd.	5033-001-021	1950
3	3773-3775 Crenshaw Blvd.	5045-018-036	1947
3	3820 Crenshaw Blvd.	5033-003-017	1959
4	4058 Crenshaw Blvd.	5024-009-012	1942
4	4080 Crenshaw Blvd.	5024-009-008	1948
4	4108 Crenshaw Blvd.	5024-009-007	1948
5	4233 Crenshaw Blvd.	5024-008-003	1957
5	4241 Crenshaw Blvd.	5024-008-001	1950
5	4246 Crenshaw Blvd.	5024-017-009	1941
5	4249 Crenshaw Blvd	5024-008-026	1966
5	4267 Crenshaw Blvd.	5024-007-003	1954
5	4275 Crenshaw Blvd.	5024-007-004	1955
5	4276 Crenshaw Blvd.	5024-017-006	1941
5	4283 Crenshaw Blvd.	5024-007-006	1939
5	4285 Crenshaw Blvd.	5024-007-007	1939
5	4287 Crenshaw Blvd.	5024-007-008	1931
5	4289 Crenshaw Blvd.	5024-007-009	1963
5	3440 W. 43rd St.	5024-018-012	1949
5	4301 Crenshaw Blvd.	5024-006-002	1951
5	4307 Crenshaw Blvd.	5024-006-003	1936
5	4308-4312 Crenshaw Blvd.	5024-018-010	1936
5	4309 Crenshaw Blvd.	5024-006-004	1936
5	4313-4315 Crenshaw Blvd.	5024-006-005	1936
5	4314 Crenshaw Blvd.	5024-018-009	1932
5	4317-4319 Crenshaw Blvd.	5024-006-006	1936



<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
5	4320 Crenshaw Blvd.	5024-018-008	1930
5	4321 Crenshaw Blvd.	5024-006-007	1934
5	4325 Crenshaw Blvd.	5024-006-008	1934
5	4327 Crenshaw Blvd.	5024-006-009	1930
5	3423 W. 43rd Pl.	5024-018-006	1928
5	3419 W. 43rd Pl.	5024-018-004	1941
5	3411 W. 43rd Pl.	5024-018-002	1931
5	4331 Crenshaw Blvd.	5024-006-010	1926
5	4401 Crenshaw Blvd.	5013-013-013	1955
5	4425 Crenshaw Blvd.	5013-013-004	1940
5	4429-4437 Crenshaw Blvd.	5013-013-003	1933
5	4414 Crenshaw Blvd.	5013-023-008, 5013-023-005	1946
5	4434 Crenshaw Blvd.	5013-023-006	1960
6	4450 Crenshaw Blvd.	5013-022-031	1958
6	4470 Crenshaw Blvd.	5013-022-018	1909
6	4480 Crenshaw Blvd.	5013-022-020	1924
6	4500 Crenshaw Blvd.	5013-022-021	1959
6	4504 Crenshaw Blvd.	5013-022-022	1959
6	4518 Crenshaw Blvd.	5013-022-025	1944
6	4633 Crenshaw Blvd.	5013-015-010	1936
6	4637-4643 Crenshaw Blvd.	5013-015-009	1939
6	4645-4647 Crenshaw Blvd.	5013-015-008	1946
6	4703 Crenshaw Blvd.	5013-015-006	1946
6	4717 Crenshaw Blvd.	5013-015-002	1955
6	4727 Crenshaw Blvd.	5013-015-001	1954
6	4602 Crenshaw Blvd.	5013-021-023	1956/1968
6	4622 Crenshaw Blvd.	5013-021-015	1951
6	4700 Crenshaw Blvd.	5013-021-016	1948
6	4801 Crenshaw Blvd.	5013-016-019	1962
6	4841 Crenshaw Blvd.	5013-016-013	1954
6	4843 Crenshaw Blvd.	5013-016-012	1941
6	4900 Crenshaw Blvd.	5013-020-032	1925
6	4904 Crenshaw Blvd.	5013-020-010	1920s
6	4914 Crenshaw Blvd.	5013-020-012	1922
6	4916 Crenshaw Blvd.	5013-020-013	1940
7	3315 W. 50th St.	5013-020-016	1931
7	5026 Crenshaw Blvd.	5013-019-020	1920
7	5117 Crenshaw Blvd.	5013-018-001	1956
7	5100 Crenshaw Blvd.	5013-019-021	1926
7	5106 Crenshaw Blvd.	5013-019-022	1920

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**



<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
7	5124 Crenshaw Blvd.	5013-019-005	1936
7	5125 Crenshaw Blvd.	5013-018-002	1936
7	5133 Crenshaw Blvd.	5013-018-900	1951
7	5140 Crenshaw Blvd.	5013-019-003	1940
7	5141 Crenshaw Blvd.	5013-018-004	1956
7	5144 Crenshaw Blvd.	5013-019-002	1947
7	5154 Crenshaw Blvd.	5013-019-001	1929
7	5312-5318 Crenshaw Blvd.	5006-007-005 5006-007-006	1947 1956
7	5322 Crenshaw Blvd.	5006-007-004	1940
7	5330-5334 Crenshaw Blvd.	5006-007-003	1914
7	5343 Crenshaw Blvd.	5006-006-005	1946
7	5349 Crenshaw Blvd.	5006-006-006	1933
7	5365 Crenshaw Blvd.	5006-006-007	1927
7	5424 Crenshaw Blvd.	5006-008-008	1927
8	5441-5443 Crenshaw Blvd.	5006-005-006	1941
8	5445-5449 Crenshaw Blvd.	5006-005-007	1940
8	5446 Crenshaw Blvd.	5006-008-005	1933
8	5452 Crenshaw Blvd.	5006-008-004	1938
8	5460 Crenshaw Blvd.	5006-008-003	1933
8	5471 Crenshaw Blvd	5006-005-028	1963
8	5472 Crenshaw Blvd.	5006-008-028	1925
8	5710 Crenshaw Blvd.	5006-009-008	1941
8	5711 11th Avenue	5006-009-012	1921
8	5716 Crenshaw Blvd.	5006-009-007	1923
8	5720 Crenshaw Blvd.	5006-009-006	1929
8	5728 Crenshaw Blvd.	5006-009-005	1929
8	5804 Crenshaw Blvd.	4005-005-024	1967
8	3240 Slauson Ave.	4005-005-032	1967
8	5851 Crenshaw Blvd.	4005-003-009	1948
8	5863 Crenshaw Blvd.	4005-003-010	1930
8	5871 Crenshaw Blvd.	4005-003-011	1950
8	5908 Crenshaw Blvd.	4005-006-024	1951
8	3410 59th Pl.	4005-001-009	1937
9	5959 Crenshaw Blvd.	4005-001-010	n/a
9	5965 Crenshaw Blvd.	4005-001-011	n/a
9	5969 Crenshaw Blvd.	4005-001-012	1953
9	5975 Crenshaw Blvd.	4005-001-013	1927

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**



<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
9	3327 W. 60th St	4005-007-002	1948
9	6109 Crenshaw Blvd.	4006-004-011	1950
9	6206 Crenshaw Blvd.	4006-003-027	1921
9	6207 Crenshaw Blvd.	4006-004-020	1921
9	6216 Crenshaw Blvd.	4006-003-028	1921
9	6222 Crenshaw Blvd.	4006-003-036	1923
9	6300 Crenshaw Blvd.	4006-010-006	1955
9	6303 Crenshaw Blvd.	4006-009-003	1946
9	6310-6314 Crenshaw Blvd.	4006-010-007	1950
9	6315 Crenshaw Blvd.	4006-009-007	1956
9	6332-6334 S. Victoria Ave	4006-009012	1926
9	6340 Crenshaw Blvd.	4006-010-017	1955
9	6345 Crenshaw Blvd.	4006-009-035	1948
9	6411 Crenshaw Blvd.	4006-009-019	1925
9	6417 Crenshaw Blvd.	4006-009-020	1964
9	6423 Crenshaw Blvd.	4006-009-024	1921
9	6346-6400 Crenshaw Blvd.	4006-010-021	1929
9	6412 Crenshaw Blvd.	4006-010-022	1921
9	6422 Crenshaw Blvd.	4006-010-027	1955
9	6429 Crenshaw Blvd.	4006-009-031	1911
9	6500 Crenshaw Blvd.	4006-015-001	1911
9	6501 Crenshaw Blvd.	4006-018-001	1922/1965
9	6510 Crenshaw Blvd.	4006-015-002	1923
10	6515-6517 Crenshaw Blvd.	4006-018-005	1959
10	6519 Crenshaw Blvd.	4006-018-006	1941
10	6520 Crenshaw Blvd.	4006-015-017	1950
10	6531 Crenshaw Blvd.	4006-018-010	1950s
10	6600 Crenshaw Blvd.	4006-016-029	1923
10	6601 Crenshaw Blvd.	4006-018-013	1950s
10	6613 Crenshaw Blvd.	4006-018-019	1922
10	6618-6620 Crenshaw Blvd.	4006-016-018	1952
10	6622-6630 Crenshaw Blvd.	4006-016-027	1950
10	6627-6635 Crenshaw Blvd.	4006-018-022	1956
10	6637 Crenshaw Blvd.	4006-018-025	1946
10	6700 Crenshaw Blvd.	4006-025-032	1928
10	3410 W. 67th St.	4006-024-029	1950
10	6720 Victoria Ave	4006-024-026	1928
10	6714 Victoria Ave	4006-024-002	1920s
10	6715 Victoria Ave	4006-022-012	1920s
10	6726 Brynhurst Ave.	4006-022-015	1954

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**



<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
10	6732 Brynhurst Ave.	4006-022-017	1963
10	6745 Victoria Ave.	4006-023-020	1959
10	6809 S. Victoria Ave.	4006-023-002	1947
10	6820 Brynhurst Ave.	4006-023-003	1947
10	6833 Brynhurst Ave.	4006-021-029	1953
11	6810 West Blvd.	4006-021-038	1962
11	6833 Brynhurst Ave.	4006-021-039	1960
11	3525 W. 71st. St.	4006-021-032	1923
11	6848 West Blvd.	4006-021-033	1959
11	7100 West Blvd.	4006-035-001	1937
11	827 E. Redondo Blvd.	4013-027-008	1950
11	1101 E. Redondo Blvd.	4013-007-028	1920
11	1105 E. Redondo Blvd.	4013-007-027	1947
11	1113 E. Redondo Blvd.	4013-007-026	1947
11	1119 E. Redondo Blvd.	4013-007-032	1968
11	1123 E. Redondo Blvd.	4013-007-022	1948
11	1137 E. Redondo Blvd.	4013-007-029	1951
11	1145 E. Florence Ave.	4013-008-002	1957/1961
11	1135 E. Florence Blvd.	4013-008-003	1948
11	6907 West Blvd.	4013-008-001	1949
11	1131 E. Florence Ave.	4013-008-005	1949
11	1125 E. Florence Ave.	4013-008-011	1958
13	423 La Colina Dr.	4015-016-023	1922
13	419 La Colina Dr.	4015-016-022	1953
13	415 La Colina Dr.	4015-016-021	1952
13	411 La Colina Dr.	4015-016-020	1954
13	405 La Colina Dr.	4015-016-019	1922
13	401 La Colina Dr.	4015-016-018	1954
13	373 La Colina Dr.	4015-017-019	1955
13	367 La Colina Dr.	4015-017-018	1923
13	338 E. Beach Ave	4015-017-025	1920
13	325 N. Hillcrest Blvd.	4015-021-013,	1924





<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
13	315 N. Hillcrest Blvd., (No.s 1-22)	4015-021-045, 4015-021-046, 4015-021-047, 4015-021-048, 4015-021-049, 4015-021-050, 4015-021-051, 4015-021-052, 4015-021-053, 4015-021-054, 4015-021-055, 4015-021-056, 4015-021-057, 4015-021-058, 4015-021-059, 4015-021-060, 4015-021-061, 4015-021-062, 4015-021-063, 4015-021-064, 4015-021-065, 4015-021-066	1963
13	308 E. Beach Ave.	4015-017-010	1946
13	200 E. Beach Ave.	4015-018-004	1958
13	445 E. Florence Ave.	4015-019-024	1966
13	407 E. Florence Ave.	4015-019-017	1949
13	403 E. Florence Ave.	4015-019-021	1937
13	349 E. Florence Ave.	4015-019-007	1935
13	335 E. Florence Ave.	4015-019-006	1953
13	333 E. Florence Ave.	4015-019-005	1943
13	327 E. Florence Ave.	4015-019-004	1920
13	325 E. Florence Ave.	4015-019-003	1946
13	317 E. Florence Ave.	4015-019-001	1946
13	300 E. Florence Ave.	4015-027-031	1967
14	230 N. La Brea Ave.	4015-018-007	1966
14	250 W. Ivy Ave.	4016-030-001	1964
14	217 N. La Brea Ave.	4015-029-003	1926
15	235 W. Florence Ave.	4020-021-007	1929
15	319 N. Eucalyptus Ave.	4020-005-006	1942
15	500 W. Florence Ave.	4018-007-019	1962
16	967 W. Hyde Park Blvd.	4018-002-047	1961
16	956 W. Hyde Park Blvd.	4018-002-002	1952
16	8295 S. La Cienega Blvd.	4127-005-018	1967
16	129 N. Ash Ave.	4018-008-008	1939
16	710 W. Florence Ave.	4018-008-012	1966



<b>APE Map Page</b>	<b>Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>
16	8307 S. La Cienega Ave.	4127-026-032	1968
17	824 W. Florence Ave.	4127-026-003	1952
17	830 W. Florence Ave.	4127-026-002	1940
17	112 S. Glasgow Ave.	4127-026-013	1963
17	7858 Midfield Ave.	4127-005-007	1950
17	7862 Midfield Ave.	4127-005-019	1950
17	5304 W. 82nd St.	4127-005-010	1950
17	900 W. Florence Ave.	4127-028-002	1968
17	1132 W. Florence Ave.	4127-024-023	1964
17	1135 W. Manchester Ave.	4127-024-024	1964
18	5560 W. Manchester Ave.	4126-001-011	1940/1983
18	5550 W. Manchester Ave.	4126-001-010	1953
18	1201 W. Manchester Blvd.	4127-024-020	1957
18	1100 W. Florence Ave.	4127-024-028	1957
18	8631 Aviation Blvd.	4126-001-006	1948
18	5600 W. Manchester Ave.	4125-018-016	1965
18	5630 W. Manchester Ave.	4125-018-015	1966
18	8700 Bellanca Ave.	4125-018-012	1956
19	8820 Bellanca Ave.	4125-018-009	1949
19	8900 Bellanca Ave.	4125-010-009	1953
19	8924 Bellanca Ave.	4125-010-010	1950
19	9010 Bellanca Ave.	4125-010-012	1951
19	9020 Bellanca Ave.	4125-010-013	1951
19	8821 Aviation Blvd., Rear	4126-002-005	1959
19	8911 Aviation Blvd.	4126-019-009	1958
19	8911 Aviation Blvd.	4126-019-010	1952
19	9131 Aviation Blvd	4126-020-012	1954
21	9606-9610 Bellanca Ave.	4125-021-026	1951
21	9830 Bellanca Ave.	4125-026-009	1945
21	9725 Aviation Blvd.	4128-001-005	1950
21	5447 W. Century Blvd.	4128-024-902	1954

Seven properties were previously listed in or determined eligible for the NRHP, CRHR and/ or local listing (see Table 4-2). Two of these are no longer extant; SWCA prepared California Department of Parks and Recreation (DPR) update forms were prepared for the five previously recorded properties that are still extant. The remaining 205 properties in the APE that were built in or prior to 1968 and have not been exempted, or listed in or determined eligible for the NRHP or CRHR required intensive evaluation for historical significance. Those properties are discussed in Section 4.5.3.

The remaining properties within the APE were built after 1968, and were not evaluated for significance (Appendix F).



**4.5.3 Significance Evaluations**

California DPR series 523 forms were prepared for each property containing improvements completed in or before 1968 that were not previously listed in or determined eligible for the NRHP or CRHR and were not exempted due to significant alterations. The results of those evaluations, in support of this section, are included in Appendix D.

Table 4-4 shows properties that contain improvements completed in or prior to 1968, according to Los Angeles County tax assessor records and/or building permits, that are evaluated in DPR series 523 forms for historical significance.

**Table 4-4. Parcels Evaluated in the APE**

<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
2-1	3700-3704 Exposition Blvd.	5046-022-002	1947	6Z
2-2	3629-3631 1/2 S. Victoria Ave.	5046-022-003	1947	6Z
2-3	3633-3635 1/2 S. Victoria Ave.	5046-022-004	1948	6Z
2-4	3637-3639 1/2 S. Victoria Ave.	5046-022-005	1948	6Z
2-5	3641-3643 1/2 S. Victoria Ave.	5046-022-006	1948	6Z
2-6	3645 S. Victoria Ave.	5046-022-007	1953	6Z
2-7	3701-3707 W. Rodeo Rd.	5046-022-008	1949	6Z
2-8	3335 Exposition Blvd.	5044-002-011	1949	6Z
2-9	3423 Rodeo Rd.	5044-001-023	1944	6Z
2-10	3500 Rodeo Rd.	5033-001-020	1951	6Z
2-11	3651 Crenshaw Blvd.	5046-023-001	1940	3CS, 5S2
2-12	Riviera Sofa Beds, 3657 Crenshaw Blvd.	5046-023-003	1941	3CS, 5S2
2-13	3667 Crenshaw Blvd.	5046-023-004	1940	3CS, 5S2
2-14	3669 Crenshaw Blvd.	5046-023-005	1941	5S2
2-15	3675 Crenshaw Blvd.	5046-023-006	1941	6Z
2-16	3679 Crenshaw Blvd.	5046-023-007	1962	6Z
2-17	3681 Crenshaw Blvd.	5046-023-008	1942	6Z
2-18	Family Savings and Loan, 3683 Crenshaw Blvd.	5046-023-024	1962	3CS, 5S2
2-19	3695 Crenshaw Blvd.	5046-023-011	1942	6Z
2-20	3566 Rodeo Pl.	5033-001-024	1963	6Z
3-1	Holiday Bowl (site of), 3730 Crenshaw Blvd.	5033-001-037	1957	5S1
3-2	Pontiac Sign, 3740 Crenshaw Blvd.	5033-001-038	1930s	5S2
3-3	Los Angeles Sentinel, 3800 Crenshaw Blvd.	5033-003-020	1988	6Z
3-4	3810 Crenshaw Blvd.	5033-003-005	1962	6Z
3-5	3623 Coliseum Pl.	5045-018-021	1948	6Z



<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
3-6	3616 Coliseum Pl.	5045-019-030	1949	6Z
3-7	3834 S. Victoria Ave.	5045-019-029	1941	6Z
3-8	3840 S. Victoria Ave.	5045-019-028	1948	6Z
3-9	3846 S. Victoria Ave.	5045-019-027	1947	6Z
3-10	3833 Crenshaw Blvd.	5045-019-037	1949	6Z
3-11	3847 Crenshaw Blvd.	5045-019-038	1950s	6Z
3-12	3850-3860 Crenshaw Blvd.	5033-003-003	1959	3CS, 5S2
3-13	3866-3876 Crenshaw Blvd.	5033-003-002	1959	3CS, 5S2
3-14	Angelus Funeral Home, 3874-3887 Crenshaw Blvd.	5045-019-040	1951	3S, 3CS, 5S2
3-15	3894 Crenshaw Blvd.	5033-003-001	1959	3CS, 5S2
3-16	3514-3520 W. 39th	5033-004-009	1940	3D, 3CD, 5D2
3-17	3904 Crenshaw Blvd.	5033-004-008	1940	3D, 3CD, 5D2
3-18	3908 Crenshaw Blvd.	5033-004-007	1940	3D, 3CD, 5D2
3-19	3916-3934 1/2 Crenshaw Blvd.	5033-004-006	1941	3D, 3CD, 5D2
3-20	3936-3954 1/2 Crenshaw Blvd.	5033-004-005	1941	3D, 3CD, 5D2
4-1	May Company, 3956-3962 1/2 Crenshaw Blvd.	5033-004-004	1939	3D, 3CD, 5D2
4-2	Broadway Store, 3964-3970 1/2 Crenshaw Blvd.	5033-004-003	1939	3D, 3CD, 5D2
4-3	4001 Crenshaw Blvd.	5032-002-055	1947	1CS, 2S2, 5S2
4-4	4101 Crenshaw Blvd.	5032-002-054	1947	3S, 3CS, 5S2
4-5	Department of Water and Power, 4030 Crenshaw Blvd.	5033-004-900	1945	3S, 3CS, 5S2, 3D, 3CD, 5D2
4-6	3552 W. Martin Luther King Jr. Blvd.	5024-009-014	1956	6Z
4-7	4067 McClung Dr.	5024-009-018	1936	3D, 3CD, 5D2
4-8	4071 McClung Dr.	5024-009-019	1936	3D, 3CD, 5D2
4-9	4075 McClung Dr.	5024-009-020	1935	3D, 3CD, 5D2
4-10	4101 McClung Dr.	5024-009-021	1935	6Z
4-11	4105 McClung Dr.	5024-009-022	1935	6Z
4-12	4109 McClung Dr.	5024-009-023	1935	3D, 3CD,

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APE Map Sheet Property No.	Building Name Address	Assessor Parcel No.	Year Built	California Register Status Code*
				5D2
4-13	4115 McClung Dr.	5024-009-024	1936	3D, 3CD, 5D2
4-14	4119 McClung Dr.	5024-009-025	1935	3D, 3CD, 5D2
4-15	4123 McClung Dr.	5024-009-026	1936	3D, 3CD, 5D2
4-16	4127 McClung Dr.	5024-009-027	1935	3D, 3CD, 5D2
4-17	4131 McClung Dr.	5024-009-028	1935	3D, 3CD, 5D2
4-18	4137 McClung Dr.	5024-009-029	1935	3D, 3CD, 5D2
4-19	4147 McClung Dr.	5024-009-001	1959	3D, 3CD, 5D2
4-20	4213-4213 1/2 McClung Dr.	5024-017-015	1950	6Z
4-21	4217-4219 McClung Dr.	5024-017-016	1947	6Z
4-22	4221-4223 McClung Dr.	5024-017-017	1933-37	3D, 3CD, 5D2
4-23	4225-4227 McClung Dr.	5024-017-018	1933-1936	3D, 3CD, 5D2
4-24	4229-4231 McClung Dr.	5024-017-019	1941-1942	3D, 3CD, 5D2
4-25	4235-4237 McClung Dr.	5024-017-020	1931-1934	3D, 3CD, 5D2
4-26	4064 Crenshaw Blvd.	5024-009-011	1968	6Z
4-27	4070-4072 Crenshaw Blvd.	5024-009-010	1942	6Z
4-28	4074 Crenshaw Blvd.	5024-009-009	1948	6Z
4-29	4116-4118 Crenshaw Blvd.	5024-009-006	1941	6Z
4-30	4124-4126 Crenshaw Blvd.	5024-009-004	1940	6Z
4-31	3610 Stocker St.	5024-008-025	1949	6Z
4-32	4200 Crenshaw Blvd.	5024-017-012	1959	6Z
4-33	4213 Crenshaw Blvd.	5024-008-008	1941	6Z
4-34	Maverick's Flat, 4225-4229 Crenshaw Blvd.	5024-008-005, 5024-005-004	1937, 1954	5S1
4-35	4230 Crenshaw Blvd.	5024-017-010	1961	6Z
5-1	4239 McClung Dr.	5024-017-021	1935-1937	3D, 3CD, 5D2
5-2	4243-4245 McClung Dr.	5024-017-022	1935-1937	3D, 3CD, 5D2
5-3	4247-4249 McClung Dr.	5024-017-023	1930-1934	3D, 3CD, 5D2

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<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
5-4	4251-4253 McClung Dr.	5024-017-024	1930-1934	3D, 3CD, 5D2
5-5	4257-4259 McClung Dr.	5024-017-025	1939	6Z
5-6	4261-4263 McClung Dr.	5024-017-026	1934-1938	3D, 3CD, 5D2
5-7	4265-4267 McClung Dr.	5024-017-027	1934-1937	3D, 3CD, 5D2
5-8	4269-4271 McClung Dr.	5024-017-028	1934-1937	3D, 3CD, 5D2
5-9	4273-4275 McClung Dr.	5024-017-033	1952	3D, 3CD, 5D2
5-10	4279-4281 McClung Dr.	5024-017-031	1942-1944	3D, 3CD, 5D2
5-11	4283 McClung Dr.	5024-017-032	1937	3D, 3CD, 5D2
5-12	4252 Crenshaw Blvd.	5024-017-008	1941	6Z
5-13	4259-4261 Crenshaw Blvd.	5024-007-001	1938	6Z
5-14	4279-4281 1/2 Crenshaw Blvd.	5024-007-005	1939	6Z
5-15	4300 Crenshaw Blvd.	5024-018-022	1949	6Z
5-16	4306 Crenshaw Blvd.	5024-018-021	1949	6Z
5-17	3413-3415 W. 43rd Pl.	5024-018-003	1940	3D, 3CD, 5D2
5-18	4343 Crenshaw Blvd.	5024-006-011	1960	6Z
5-19	4345 Crenshaw Blvd.	5024-006-012	1937	6Z
5-20	4395 Leimert Blvd.	5024-018-900	1928	3D, 3CD, 5D2
5-21	4415 Crenshaw Blvd.	5013-013-006	1939	6Z
5-22	4444 Crenshaw Blvd.	5013-023-007	1958	6Z
5-23	4401 Crenshaw Blvd.	5013-013-013	1955	3CS, 5S2
6-1	Harrison Ross Mortuary, 4601 Crenshaw Blvd.	5013-015-015	1930	3S, 3CS, 5S2
6-2	4605-4609 Crenshaw Blvd.	5013-015-014	1925	6Z
6-3	4611 and 4619 Crenshaw Blvd.	5013-015-030, 5013-015-031	1934	6Z
6-4	4625 Crenshaw Blvd.	5013-015-012	1958	6Z
6-5	4649 Crenshaw Blvd.	5013-015-007	1939	6Z
6-6	4707 S. Crenshaw Blvd.	5013-015-005	1936	6Z
6-7	4711 Crenshaw Blvd.	5013-015-004	1943	6Z
6-8	4715 Crenshaw Blvd.	5013-015-003	1955	6Z
6-9	4610 Crenshaw Blvd.	5013-021-014	1948	3CS, 5S2
6-10	4704 Crenshaw Blvd.	5013-021-017	1947	5S2

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**



<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
6-11	4708-4716 1/2 Crenshaw Blvd.	5013-021-018	1938-1949	6Z
6-12	4717 11th Ave.	5013-021-003	1925	5S2
6-13	4721 11th Ave.	5013-021-002	1924	5S2
6-14	3313 W. 48th St.	5013-021-001	1935	6Z
6-15	4802 Crenshaw Blvd. and 3316-3322 W. 48th St.	5013-020-001	1924-1932	5S2
6-16	4808 Crenshaw Blvd.	5013-020-002	1925	5S2
6-17	4812 Crenshaw Blvd.	5013-020-003	1927	6Z
6-18	4816 Crenshaw Blvd.	5013-020-004	1920	5S2
6-19	4822 Crenshaw Blvd.	5013-020-005	1920	5S2
6-20	4826 Crenshaw Blvd.	5013-020-006	1921	3CS, 5S2
6-21	4827 Crenshaw Blvd.	5013-016-015	1934	6Z
6-22	4830 Crenshaw Blvd.	5013-020-007	1921	6Z
6-23	4835 Crenshaw Blvd.	5013-016-014	1960s	6Z
6-24	4847-4849 Crenshaw Blvd.	5013-016-011	1924	6Z
6-25	4853 Crenshaw Blvd.	5013-016-010	1947	5S2
6-26	4908 Crenshaw Blvd.	5013-020-011	1925	3CS, 5S2
6-27	4924 Crenshaw Blvd.	5013-020-014	1924	6U, 6Z
6-28	4928 Crenshaw Blvd.	5013-020-015	1922	6U, 6Z
6-29	4514 Crenshaw Blvd.	5013-022-024	1928	5S2
6-30	4528 Crenshaw Blvd.	5013-022-029	1947	6Z
7-1	4909 Crenshaw Blvd.	5013-017-024	1926/ 1946/ 1954	5S2
7-2	5001 Crenshaw Blvd.	5013-017-019	1951	6Z
7-3	5009 Crenshaw Blvd.	5013-017-018	1936	5S2
7-4	5017-5019 Crenshaw Blvd.	5013-017-017	1933	5S2
7-5	5025 Crenshaw Blvd.	5013-017-016	1925	3CS, 5S2
7-6	5031 Crenshaw Blvd.	5013-017-015	1927	5S2
7-7	5101 Crenshaw Blvd.	5013-017-014	1927	3CS, 5S2
7-8	5107-5109 Crenshaw Blvd.	5013-017-013	1934	3CS, 5S2
7-9	5336 Crenshaw Blvd.	5006-007-002	1929	5S2
7-10	5360 Crenshaw Blvd.	5006-007-001	1925	5S2
7-11	5414 Crenshaw Blvd.	5006-008-026	1966	6Z
7-12	5432 Crenshaw Blvd.	5006-008-007	1930	5S2
8-1	5444 Crenshaw Blvd.	5006-008-030	1934	5S2
8-2	5462 Crenshaw Blvd.	5006-008-027	1936	5S2
8-3	5451 Crenshaw Blvd.	5006-005-008	1945	6Z
8-4	5457 Crenshaw Blvd.	5006-005-009	1926	6Z

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**



<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
8-5	5700 Crenshaw Blvd.	5006-009-009	1939	3CS, 5S2
8-6	5719 11th Ave.	5006-009-013	1926	5S2
8-7	Fire Station No. 54, 5730 Crenshaw Blvd.	5006-009-900	1920	3CS, 5S2
8-8	5879 Crenshaw Blvd.	4005-003-012	1944	3CS, 5S2
8-9	5909 Crenshaw Blvd.	4005-002-011	1931	5S2
8-10	5915 Crenshaw Blvd.	4005-002-012	1941	6Z
8-11	5919 and 5925 Crenshaw Blvd.	4005-002-013, 4005-002-014	1952, 1954	6Z
8-12	3331 W. 59th Pl.	4005-006-001	1930	5S2
8-13	3326 W 59th Pl.	4005-007-023	1923	6Z
9-1	6103 Crenshaw Blvd.	4006-004-031	1946	6Z
9-2	6113 Crenshaw Blvd.	4006-004-012	1939	5S2
9-3	6121 Crenshaw Blvd.	4006-004-015	1964	6Z
9-4	6131 Crenshaw Blvd.	4006-004-016	1930	6Z
9-5	6203 Crenshaw Blvd.	4006-004-019	1955	6Z
9-6	6215 Crenshaw Blvd.	4006-004-023	1913	5S2
9-7	3415 W. 63rd St	4006-004-027	1923	3CS, 5S2
9-8	6307 Crenshaw Blvd.	4006-009-004	1954	6Z
9-9	6320 Crenshaw Blvd.	4006-010-012	1920	5S2
9-10	6320-6324 S. Victoria Ave	4006-009-009	1945	6Z
9-11	6326 S. Victoria Ave	4006-009-010	1921	6Z
9-12	6332 Crenshaw Blvd.	4006-010-016	1957	6Z
9-13	6326 Crenshaw Blvd.	4006-010-013	1953	6Z
9-14	6403-6405 Crenshaw Blvd.	4006-009-016	1921/1962	6Z
9-15	6414-6418 Crenshaw Blvd.	4006-010-026	1920s	6Z
10-1	6527 Crenshaw Blvd.	4006-018-901	1960s	5S2
10-2	6607 Crenshaw Blvd.	4006-018-014	1924	3CS, 5S2
10-3	6621-6625 Crenshaw Blvd.	4006-018-020	1936	3CS, 5S2
10-4	6714 -6720 Brynhurst Ave.	4006-022-026, 4006-022-014	1963	6Z
10-5	6740 Brynhurst Ave.	4006-022-018	1923	6Z
11-1	1133 E. Redondo Blvd.	4013-007-021	1953	6Z
11-2	1115 E. Redondo Blvd.	4013-007-025	1948	6Z
11-3	720 E. Florence Ave.	4012-031-929, 4012-031- 027, 4012-031-930, 4012-032-908	1905	3D, 3CD, 5D2
12-1	455 N. Prairie Ave.	4015-022-014	1961	6Z
12-2	714 E. Florence Ave.	4015-022-013	1926	3CS, 5S2

**CRENSHAW/LAX TRANSIT CORRIDOR PROJECT**





<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built</b>	<b>California Register Status Code*</b>
12-3	708 E. Florence Ave.	4015-022-012	1937	6Z
12-4	700 E. Florence Ave.	4015-022-011	1910	6Z
12-5	618 E. Florence Ave.	4015-022-005	1926	3CS, 5S2
12-6	612 E. Florence Ave.	4015-022-004	1938	6Z
12-7	608 E. Florence Ave.	4015-022-027	1926	6Z
12-8	600 E. Florence Ave.	4015-022-001	1933	3CS, 5S2
13-1	301 Centinela Ave., 700 Warren Ln., 330 W. Centinela Ave.	4015-016-025	1963	6Z
13-2	530 E. Florence Ave. 540 E. Florence Ave.	4015-023-015 4015-023-016	1953 1960	3CS, 5S2
13-3	381 La Colina Dr.	4015-016-017	1952	6Z
13-4	377 La Colina Dr.	4015-016-016	1922	5S2
13-5	375 La Colina Dr.	4015-017-020	1922	5S2
13-6	341 La Colina Dr.	4015-017-016	1940	6Z
13-7	337 La Colina Dr.	4015-017-015	1922	5S2
13-8	333 La Colina Dr.	4015-017-014	1925	5S2
13-9	405 E. Florence Ave.	4015-019-022	1937	6Z
13-10	319 E. Florence Ave.	4015-019-002	1930	6Z
14-1	Southern California Edison Substation	4020-021-810	1920	5S2
16-1	701 Augusta St.	4018-002-051	1963	6Z
16-2	136 N. Ash Ave.	4018-009-023	1951	6Z
17-1	5300 W. 82nd St.	4127-005-020	1950	6Z
17-2	8335 Hindry Ave.	4127-025-013	1958	6Z
17-3	930 W. Florence Ave.	4127-028-004	1950s	6Z
17-4	201 Hindry Ave.	4127-029-001	1952	6Z
18-1	8613 Aviation Blvd.	4126-001-017	1960	6Z
18-2	8619 Aviation Blvd.	4126-001-016	1959	6Z
19-1	9000 Bellanca Ave.	4125-010-011	1959	6Z
19-2	Merle Norman Cosmetics Co., 9030-9130 Bellanca Ave.	4125-010-014, 4125-010-015	1950	3S, 3CS, 5S2
19-3	8831 Aviation Blvd.	4126-002-006 4126-002-007	1960s	6Z
20-1	5740 Arbor Vitae St.	4125-020-001	1954	6Z
22-1	10200 Aviation Blvd.	4129-033-900	1951	6Z
22-2	10300 Aviation Blvd.	4129-033-901	1961	6Z
23-1	The Proud Bird, 11022 Aviation Boulevard	4129-036-908	1966	3CS, 5S2

\* California Historical Resource Status Codes, refer to Appendix G.



A total of 210 resources, including buildings, structures, and objects, was either previously identified or evaluated for this project for historical significance. Of those 210 resources, 41 were found eligible for listing in the NRHP (five individually, 35 as district contributors, and one as both). The Inglewood Cemetery and Leimert Park historic districts were found eligible for listing in the NRHP and CRHR for this project, and are included in the count above. Twenty-five properties were found eligible for listing in the CRHR, and 34 resources were found to be listed or eligible for local designation. The remaining 110 properties were found not eligible for either the NRHP or the CRHR or for local designation (Tables 4-5, 4-6, 4-7, 4-8, and 4-9).

**Table 4-5. Properties Listed or Found Eligible for Individual Listing in the NRHP**

APE Map Sheet Property No.	Building Name Address	Assessor Parcel No.	Year Built	California Register Status Code**
3-14	Angelus funeral Home 3874–3887 Crenshaw Boulevard	5045-019-040	1951	3S, 3CS, 5S2
4-3	May Company 4001 Crenshaw Boulevard	5032-002-055	1947	1CS, 2S2, 5S2
4-4	Broadway Department Store 4101 Crenshaw Boulevard	5032-002-054	1947	3S, 3CS, 5S2
4-5	Department of Water and Power 4030 Crenshaw Boulevard	5033-004-900	1945	3S, 3CS, 5S2, 3D, 3CD, 5D2
6-1	Harrison Ross Mortuary 4601 Crenshaw Boulevard	5013-015-015	1930	3S, 3CS, 5S2
19-2	Merle Norman Cosmetics Company 9030–9130 Bellanca Avenue	4125-010-014, 4125-010-015	1950	3S, 3CS, 5S2

\* California Historical Resource Status Codes, refer to Appendix G.

**Table 4-6. NRHP-Eligible Historic District Contributors**

APE Map Sheet Property No.	Building Address	Assessor Parcel No.	Year Built**	California Register Status Code**	Historic District
3-16	3514–3520 West 39th Street	5033-004-009	1940	3D, 3CD, 5D2	Leimert Park
3-17	3904 Crenshaw Boulevard	5033-004-008	1940	3D, 3CD, 5D2	Leimert Park
3-18	3908 Crenshaw Boulevard	5033-004-007	1940	3D, 3CD, 5D2	Leimert Park
3-19	3916–3934 1/2 Crenshaw Boulevard	5033-004-006	1941	3D, 3CD, 5D2	Leimert Park
3-20	3936–3954 1/2 Crenshaw Boulevard	5033-004-005	1941	3D, 3CD, 5D2	Leimert Park
4-1	3956–3962 1/2 Crenshaw Boulevard	5033-004-004	1939	3D, 3CD, 5D2	Leimert Park
4-2	3964–3970 1/2 Crenshaw Boulevard	5033-004-003	1939	3D, 3CD, 5D2	Leimert Park



<b>APE Map Sheet Property No.</b>	<b>Building Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built*</b>	<b>California Register Status Code*</b>	<b>Historic District</b>
4-5	4030 Crenshaw Boulevard	5033-004-900	1945	3D, 3CD, 5D2 3S, 3CS, 5S2,	Leimert Park
4-7	4067 McClung Drive	5024-009-018	1936	3D, 3CD, 5D2	Leimert Park
4-8	4071 McClung Drive	5024-009-019	1936	3D, 3CD, 5D2	Leimert Park
4-9	4075 McClung Drive	5024-009-020	1935	3D, 3CD, 5D2	Leimert Park
4-12	4109 McClung Drive	5024-009-023	1935	3D, 3CD, 5D2	Leimert Park
4-13	4115 McClung Drive	5024-009-024	1936	3D, 3CD, 5D2	Leimert Park
4-14	4119 McClung Drive	5024-009-025	1935	3D, 3CD, 5D2	Leimert Park
4-15	4123 McClung Drive	5024-009-026	1936	3D, 3CD, 5D2	Leimert Park
4-16	4127 McClung Drive	5024-009-027	1935	3D, 3CD, 5D2	Leimert Park
4-17	4131 McClung Drive	5024-009-028	1935	3D, 3CD, 5D2	Leimert Park
4-18	4137 McClung Drive	5024-009-029	1935	3D, 3CD, 5D2	Leimert Park
4-19	4147 McClung Drive	5024-009-001	1959	3D, 3CD, 5D2	Leimert Park
4-22	4221–4223 McClung Drive	5024-017-017	1933-37	3D, 3CD, 5D2	Leimert Park
4-23	4225–4227 McClung Drive	5024-017-018	1933-36	3D, 3CD, 5D2	Leimert Park
4-24	4229–4231 McClung Drive	5024-017-019	1941-42	3D, 3CD, 5D2	Leimert Park
4-25	4235–4237 McClung Drive	5024-017-020	1931-34	3D, 3CD, 5D2	Leimert Park
5-1	4239 McClung Drive	5024-017-021	1935-37	3D, 3CD, 5D2	Leimert Park
5-2	4243–4245 McClung Drive	5024-017-022	1935-37	3D, 3CD, 5D2	Leimert Park
5-3	4247–4249 McClung Drive	5024-017-023	1930-34	3D, 3CD, 5D2	Leimert Park
5-4	4251–4253 McClung Drive	5024-017-024	1930-34	3D, 3CD, 5D2	Leimert Park
5-6	4261–4263 McClung Drive	5024-017-026	1934-38	3D, 3CD, 5D2	Leimert Park
5-7	4265–4267 McClung Drive	5024-017-027	1934-37	3D, 3CD, 5D2	Leimert Park
5-8	4269–4271 McClung Drive	5024-017-028	1934-37	3D, 3CD, 5D2	Leimert Park
5-9	4273–4275 McClung Drive	5024-017-033	1952	3D, 3CD, 5D2	Leimert Park
5-10	4279–4281 McClung Drive	5024-017-031	1942-44	3D, 3CD, 5D2	Leimert Park
5-11	4283 McClung Drive	5024-017-032	1937	3D, 3CD, 5D2	Leimert Park
5-17	3413–3415 W. 43rd Place	5024-018-003	1940	3D, 3CD, 5D2	Leimert Park



APE Map Sheet Property No.	Building Address	Assessor Parcel No.	Year Built*	California Register Status Code*	Historic District
5-20	4395 Leimert Boulevard	5024-018-900	1928	3D, 3CD, 5D2	Leimert Park
11-3	720 E. Florence Avenue	4012-031-929, 4012-031-027, 4012-031-930 and 4012-032-908	1905-	3D, 3CD, 5D2	Inglewood Park Cemetery

\* California Historical Resource Status Codes, refer to Appendix G.

Table 4-7. Properties Listed or Found Eligible for Listing in the CRHR

APE Map Sheet Property No.	Building Name Address	Assessor Parcel No.	Year Built	California Register Status Code*
2-11	3651 Crenshaw Boulevard	5046-023-001	1940	3CS, 5S2
2-12	3657 Crenshaw Boulevard	5046-023-003	1941	3CS, 5S2
2-13	3667 Crenshaw Boulevard	5046-023-004	1940	3CS, 5S2
2-18	3683 Crenshaw Boulevard	5046-023-024	1962	3CS, 5S2
3-12	3850–3860 Crenshaw Boulevard	5033-003-003	1959	3CS, 5S2
3-13	3866–3876 Crenshaw Boulevard	5033-003-002	1959	3CS, 5S2
3-15	3894 Crenshaw Boulevard	5033-003-001	1959	3CS, 5S2
5-23	4401 Crenshaw Boulevard	5013-013-013	1955	3CS, 5S2
6-9	4610 Crenshaw Boulevard	5013-021-014	1948	3CS, 5S2
6-20	4824-4826 Crenshaw Boulevard	5013-020-006	1921	3CS, 5S2
6-26	4908 Crenshaw Boulevard	5013-020-011	1925	3CS, 5S2
7-5	5025 Crenshaw Boulevard	5013-017-016	1925	3CS, 5S2
7-7	5101 Crenshaw Boulevard	5013-017-014	1927	3CS, 5S2
7-8	5107–5109 Crenshaw Boulevard	5013-017-013	1934	3CS, 5S2
8-5	5700 Crenshaw Boulevard	5006-009-009	1939	3CS, 5S2
8-7	5730 Crenshaw Boulevard	5006-009-900	1920	3CS, 5S2
8-8	5879 Crenshaw Boulevard	4005-003-012	1944	3CS, 5S2
9-7	3415 W. 63rd Street	4006-004-027	1923	3CS, 5S2
10-2	6607 Crenshaw Boulevard	4006-018-014	1924	3CS, 5S2
10-3	6621–6625 Crenshaw Boulevard	4006-018-020	1936	3CS, 5S2
12-2	714 E. Florence Avenue	4015-022-013	1926	3CS, 5S2
12-5	618 E. Florence Avenue	4015-022-005	1926	3CS, 5S2
12-8	600 E. Florence Avenue	4015-022-001	1933	3CS, 5S2
13-2	530 E. Florence Avenue 540 E. Florence Avenue	4015-023-015 4015-023-016	1953 1960	3CS, 5S2
23-1	11022 Aviation Boulevard	4129-036-908	1950s	3CS, 5S2

\* California Historical Resource Status Codes, refer to Appendix G.



Table 4-8. Properties listed or found eligible for local designation,  
and are historical resources under CEQA

APE Map Sheet Property No.	Building Name Address	Assessor Parcel No.	Year Built*	California Register Status Code**
2-14	3669 Crenshaw Boulevard	5046-023-005	1941	5S2
3-1	3730 Crenshaw Boulevard	5033-001-037	1957	5S1
3-2	3740 Crenshaw Boulevard	5033-001-038	2006	5S2
4-34	4225–4229 Crenshaw Boulevard	5024-008-005, 5024-005-004	1937, 1954	5S1
6-10	4704 Crenshaw Boulevard	5013-021-017	1947	5S2
6-12	4717 11th Avenue	5013-021-003	1925	5S2
6-13	4721 11th Avenue	5013-021-002	1924	5S2
6-15	4802 Crenshaw Boulevard 3316–3322 W. 48th Street	5013-020-001	1924-1932	5S2
6-16	4808 Crenshaw Boulevard	5013-020-002	1925	5S2
6-18	4816 Crenshaw Boulevard	5013-020-004	1920	5S2
6-19	4822 Crenshaw Boulevard	5013-020-005	1920	5S2
6-25	4853 Crenshaw Boulevard	5013-016-010	1947	5S2
6-29	4514 Crenshaw Blvd.	5013-022-024	1928	5S2
7-1	4909 Crenshaw Boulevard	5013-017-024	1926/ 1946/ 1954	5S2
7-3	5009 Crenshaw Boulevard	5013-017-018	1936	5S2
7-4	5017–5019 Crenshaw Boulevard	5013-017-017	1933	5S2
7-6	5031 Crenshaw Boulevard	5013-017-015	1927	5S2
7-9	5336 Crenshaw Boulevard	5006-007-002	1929	5S2
7-10	5360 Crenshaw Boulevard	5006-007-001	1925	5S2
7-12	5432 Crenshaw Boulevard	5006-008-007	1930	5S2
8-1	5444 Crenshaw Boulevard	5006-008-030	1934	5S2
8-2	5462 Crenshaw Boulevard	5006-008-027	1936	5S2
8-6	5719 11th Avenue	5006-009-013	1926	5S2
8-9	5909 Crenshaw Boulevard	4005-002-011	1931	5S2
8-12	3331 W. 59th Place	4005-006-001	1930	5S2
9-2	6113 Crenshaw Boulevard	4006-004-012	1939	5S2
9-6	6215 Crenshaw Boulevard	4006-004-023	1913	5S2
9-9	6320 Crenshaw Boulevard	4006-010-012	1920	5S2
10-1	6527 Crenshaw Boulevard	4006-018-901	1960s	5S2
13-4	377 La Colina Drive	4015-016-016	1922	5S2
13-5	375 La Colina Drive	4015-017-020	1922	5S2
13-7	337 La Colina Drive	4015-017-015	1922	5S2
13-8	333 La Colina Drive	4015-017-014	1925	5S2



<b>APE Map Sheet Property No.</b>	<b>Building Name Address</b>	<b>Assessor Parcel No.</b>	<b>Year Built*</b>	<b>California Register Status Code**</b>
14-1	Southern California Edison Substation	4020-021-810	1920	5S2

\* California Historical Resource Status Codes, refer to Appendix G.



## 5.0 IMPACTS

The Impacts analysis section examines expected effects and impacts of the proposed project on historic properties and historical resources. This analysis takes project-related analyses as well as other factors into consideration in making these findings. Some of the other applicable technical studies include: displacement, visual quality, right-of-way, noise and vibration studies, geotechnical studies, and station designs. As noted in Section 4.5.3 there are 100 significant historic-period resources within the APE that appear eligible or are listed in the NRHP, CRHR, and/or local designation.

Construction and operation activities were analyzed for their potential to impact historic-period resources. The following section summarizes the type of effects and impacts that may occur within the APE. Table 5-1 summarizes the results of the analysis and indicates what resources may experience effects and/or impacts within the APE.

5-1. Potential Impacts to Historical Resources within the APE

APE Map No.	Building Name and Address	Year Built*	California Register Status Code**	CEQA Impact	Criterion of Adverse Effect	Improvement Details
2-11	3651 Crenshaw Blvd.	1940	3CS, 5S2	No impact	No historic properties affected	N/A
2-12	3657 Crenshaw Blvd.	1941	3CS, 5S2	No impact	No historic properties affected	N/A
2-13	3667 Crenshaw Blvd.	1940	3CS, 5S2	No impact	No historic properties affected	N/A
2-14	3669 Crenshaw Blvd.	1941	5S2	No impact	No historic properties affected	N/A
2-18	3683 Crenshaw Blvd.	1962	3CS, 5S2	No impact	No historic properties affected	N/A
3-1	Holiday Bowl Coffee Shop, 3730 Crenshaw Blvd.	1957	5S2	No impact	No historic properties affected	N/A
3-2	Pontiac Sign, 3740 Crenshaw Blvd.	???	5S2	No impact	No historic properties affected	N/A
3-12	Crenshaw Square, 3850-60 Crenshaw Blvd.	1959	3CS, 5S2	No impact	No historic properties affected	N/A
3-13	Crenshaw Square, 3866-76 Crenshaw Blvd.	1959	3CS, 5S2	No impact	No historic properties affected	N/A
3-14	Angelus Funeral Home, 3874-3887 Crenshaw Blvd.	1951	3S, 3CS, 5S2	No Impact	No historic properties affected	N/A



APE Map No.	Building Name and Address	Year Built**	California Register Status Code***	CEQA Impact	Criterion of Adverse Effect	Improvement Details
3-15	U.S. Post Office, 3894 Crenshaw Blvd.	1959	3CS, 5S2	No impact	No historic properties affected	N/A
3-16	3514-3520 W. 39th	1940	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
3-17	3904 Crenshaw Blvd.	1940	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
3-18	3908 Crenshaw Blvd.	1940	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
3-19	3916-3934 1/2 Crenshaw Blvd.	1941	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
3-20	3936-3954 1/2 Crenshaw Blvd.	1941	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-1	3956-3962 1/2 Crenshaw Blvd.	1939	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-2	3964-3970 1/2 Crenshaw Blvd.	1939	3CD, 5D3	No impact	No historic properties affected	N/A
4-3	May Company Building, 4001 Crenshaw Blvd.	1947	1CS, 2S2, 5S2	No impact	No historic properties affected	N/A
4-4	Broadway Department Store, 4101 Crenshaw Blvd.	1947	3S, 3Cs, 5S2	No Significant impact	No adverse effect	Construction of the King Station portal would be reduced to not adverse and impacts to less than significant through compliance with the Standards.
4-5	4030 Crenshaw Blvd.	1945	3CS, 5S2, 3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-7	4067 McClung Dr.	1936	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-8	4071 McClung Dr.	1936	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-9	4075 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-10	4101 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT





<b>APE Map No.</b>	<b>Building Name and Address</b>	<b>Year Built*</b>	<b>California Register Status Code**</b>	<b>CEQA Impact</b>	<b>Criterion of Adverse Effect</b>	<b>Improvement Details</b>
4-12	4109 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-13	4115 McClung Dr.	1936	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-14	4119 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-15	4123 McClung Dr.	1936	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-16	4127 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-17	4131 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-18	4137 McClung Dr.	1935	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-19	4147 McClung Dr.	1959	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-22	4221-4223 McClung Dr.	1933-37	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-23	4225-4227 McClung Dr.	1933-36	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-24	4229-4231 McClung Dr.	1941-42	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-25	4235-4237 McClung Dr.	1931-34	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-27	Lili Wigs, 4070-4072 Crenshaw Blvd.	1942	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
4-34	Maverick's Flat, 4225-4229 Crenshaw Blvd.	1937 and 1954	5S1	No impact	No historic properties affected	N/A
5-1	4239 McClung Dr.	1935-37	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-2	4243-4245 McClung Dr.	1935-37	3D, 3CD, 5D2	No impact	No historic properties affected	N/A



<b>APE Map No.</b>	<b>Building Name and Address</b>	<b>Year Built**</b>	<b>California Register Status Code***</b>	<b>CEQA Impact</b>	<b>Criterion of Adverse Effect</b>	<b>Improvement Details</b>
5-3	4247-4249 McClung Dr.	1930-34	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-4	4251-4253 McClung Dr.	1930-34	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-6	4261-4263 McClung Dr.	1934-38	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-7	4265-4267 McClung Dr.	1934-37	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-8	4269-4271 McClung Dr.	1934-37	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-9	4273-4275 McClung Dr.	1952	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-10	4279-4281 McClung Dr.	1942-44	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-11	4283 McClung Dr.	1937	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-17	3413-3415 W. 43rd Pl.	1940	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-20	Leimert Plaza Park, 4395 Leimert Blvd.	1928	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
5-23	Bank, 4401 Crenshaw Blvd.	1955	3CS, 5S2	No impact	No historic properties affected	N/A
6-1	Harrison-Ross Mortuary, 4601 Crenshaw Blvd.	1930	3S, 3CS, 5S2	No impact	No historic properties affected	N/A
6-9	Crenshaw Collision Center, 4610 Crenshaw Blvd.	1948	3CS, 5S2	No impact	No historic properties affected	N/A
6-10	4704 Crenshaw Blvd.	1947	5S2	No impact	No historic properties affected	N/A
6-12	4717 11th Ave.	1925	5S2	No impact	No historic properties affected	N/A
6-13	4721 11th Ave.	1924	5S2	No impact	No historic properties affected	N/A



APE Map No.	Building Name and Address	Year Built**	California Register Status Code***	CEQA Impact	Criterion of Adverse Effect	Improvement Details
6-15	4802 Crenshaw Blvd. and 3316-3322 W. 48th St.	1924-1932	5S2	No impact	No historic properties affected	N/A
6-16	4808 Crenshaw Blvd.	1925	5S2	No impact	No historic properties affected	N/A
6-18	4816 Crenshaw Blvd.	1920	5S2	No impact	No historic properties affected	N/A
6-19	4822 Crenshaw Blvd.	1920	5S2	No impact	No historic properties affected	N/A
6-20	4826 Crenshaw Blvd.	1921	3CS, 5S2	No impact	No historic properties affected	N/A
6-25	4853 Crenshaw Blvd.	1947	5S2	No impact	No historic properties affected	N/A
6-26	4908 Crenshaw Blvd.	1925	3CS, 5S2	No impact	No historic properties affected	N/A
7-1	4909 Crenshaw Blvd.	1926/ 1946/ 1954	5S2	No impact	No historic properties affected	N/A
7-3	5009 Crenshaw Blvd.	1936	5S2	No impact	No historic properties affected	N/A
7-4	5017-5019 Crenshaw Blvd.	1933	5S2	No impact	No historic properties affected	N/A
7-5	5025 Crenshaw Blvd.	1925	3CS, 5S2	No impact	No historic properties affected	N/A
7-6	5031 Crenshaw Blvd.	1927	5S2	No impact	No historic properties affected	N/A
7-7	5101 Crenshaw Blvd.	1927	3CS, 5S2	No impact	No historic properties affected	N/A
7-8	5107-5109 Crenshaw Blvd.	1934	3CS, 5S2	No impact	No historic properties affected	N/A
7-9	5336 Crenshaw Blvd.	1929	5S2	No impact	No historic properties affected	N/A
7-10	5360 Crenshaw Blvd.	1925	5S2	No impact	No historic properties affected	N/A

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT



APE Map No.	Building Name and Address	Year Built**	California Register Status Code***	CEQA Impact	Criterion of Adverse Effect	Improvement Details
7-12	5432 Crenshaw Blvd.	1930	5S2	No impact	No historic properties affected	N/A
8-1	5444 Crenshaw Blvd.	1934	5S2	No impact	No historic properties affected	N/A
8-2	5462 Crenshaw Blvd.	1936	5S2	No impact	No historic properties affected	N/A
8-4	5457 Crenshaw Blvd.	1926	6Z	No impact	No historic properties affected	N/A
8-5	5700 Crenshaw Blvd.	1939	3CS, 5S2	No impact	No historic properties affected	N/A
8-6	5719 11th Avenue	1926	5S2	No impact	No historic properties affected	N/A
8-7	5730 Crenshaw	1920	3CS, 5S2	No impact	No historic properties affected	N/A
8-8	5879 Crenshaw Blvd.	1944	3Cs, 5S2	No impact	No historic properties affected	N/A
8-9	5909 Crenshaw Blvd.	1931	5S2	No impact	No historic properties affected	N/A
8-12	3331 W. 59th Pl	1930	5S2	No impact	No historic properties affected	N/A
9-2	6113 Crenshaw Blvd.	1939	5S2	No impact	No historic properties affected	N/A
9-6	6215 Crenshaw Blvd.	1913	5S2	No impact	No historic properties affected	N/A
9-7	3415 W. 63rd St	1923	3CS, 5S2	No impact	No historic properties affected	N/A
9-9	6320 Crenshaw Blvd.	1920	5S2	No impact	No historic properties affected	N/A
10-1	6527 Crenshaw Blvd.	circa 1960s	5S2	No impact	No historic properties affected	N/A
10-2	6607 Crenshaw Blvd.	1924	3CS, 5S2	No impact	No historic properties affected	N/A

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT



APE Map No.	Building Name and Address	Year Built*	California Register Status Code**	CEQA Impact	Criterion of Adverse Effect	Improvement Details
10-3	6621-6625 Crenshaw Blvd.	1936	3CS, 5S2	No impact	No historic properties affected	N/A
11-3	Inglewood Park Cemetery Historic District, 720 E. Florence Ave.	1905	3D, 3CD, 5D2	No impact	No historic properties affected	N/A
12-2	714 E. Florence Ave.	1926	3CS, 5S2	No impact	No historic properties affected	N/A
12-5	618 E. Florence Ave.	1926	3CS, 5S2	No impact	No historic properties affected	N/A
12-8	600 E. Florence Ave.	1933	3Cs, 5S2	No impact	No historic properties affected	N/A
13-2	530 and 540 E. Florence Ave.	1953 and 1960	3CS, 5S2	No impact	No historic properties affected	N/A
13-4	377 La Colina Dr.	1922	5S2	No impact	No historic properties affected	N/A
13-5	375 La Colina Dr.	1922	5S2	No impact	No historic properties affected	N/A
13-7	337 La Colina Dr.	1922	5S2	Less than significant impact	No historic properties affected	N/A
13-8	333 La Colina Dr.	1925	5S2	Less than significant impact	No historic properties affected	N/A
14-1	Edison Substation, no address, Florence Ave. and Fir Ave.	circa 1920	5S2	No impact	No historic properties affected	N/A
19-2	Merle Norman Cosmetic Company, 9030-9130 Bellanca Ave.	1950	3S, 3CS, 5S2	No impact	No historic properties affected	N/A
22-1	The Proud Bird Restaurant, 11022 Aviation Boulevard	1950s	3CS, 5S2	No impact	No historic properties affected	N/A

### 5.1 No Build Alternative

The No Build Alternative would not result in short-term or long-term construction-related effects to historic properties or impacts to historical resources. This alternative does not include improvements, and thus would not result in effects to historic properties under the National Environmental Protection Act (NEPA) or impacts to historical resources under the California Environmental Quality Act (CEQA) within the APE.



## **5.2 Locally Preferred Alternative**

### **5.2.1 Acquisitions, Demolitions and Alterations**

Four parcels containing historic properties and historical resources would be acquired. Three parcels would be acquired for underground easements: the Broadway Building (APE Map No. 4-4), the property at 3413–3415 West 43rd Place (APE Map No. 5-17), and Leimert Plaza Park (APE Map No. 5-20). A portion of the Crenshaw Collision Center parking lot (APE Map No. 6-9), would be partially acquired in support of the project. Acquisition of these parcels will not result in demolition of any historic properties or historical resources and project-related construction would not affect any of these resources. Therefore no adverse effects related to acquisition, demolition or alterations to historic properties are anticipated.

A new portal may be constructed adjacent to the Broadway Building (now Walmart) (APE Map No. 4-4), which was found eligible for listing in the NRHP and CRHR. The Crenshaw/King Station has been designed with two possible station portal locations. As currently proposed, the station portal would be located on the southeast corner of the Crenshaw–Martin Luther King Jr. Boulevards intersection. The portal on the southwest corner of this intersection, adjacent to the historic building, is the alternate portal location. If the portal location adjacent to the Broadway building is selected, avoidance of indirect visual impacts to the Broadway Building shall be accomplished through conformance to the Secretary of the Interior’s Standards for the Treatment of Historic Properties with Guidelines of Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Weeks and Grimmer 1995). The portal design shall ensure the retention of the character defining features of the historic property, and avoid damage to all features. The work shall conform to the standards and guidelines for “rehabilitation” and shall be reviewed by a qualified architectural historian or historian who meets the Secretary of the Interior’s Professional Qualification Standards for History and/or Architectural History (NPS 1983). This design will reduce the effects of the portal’s construction to not adverse.

### **5.2.2 Noise and Vibration**

Noise and/or vibration sources associated with the project will include construction activity, pass-by activity, special track-work, wheel squeal, vent shafts, ancillary facilities, warning signals, and park-and-ride facilities. The FTA has published a construction vibration damage criteria of 0.12 peak particle velocity (PPV) in inches per second for buildings extremely susceptible to building damage. The proposed project would not include driven piles, near the Broadway Building, the Angelus Funeral Home, or other eligible historic properties. Cast-in-drilled-hole (CIDH) piles will be used to support structures. Typical construction activity, including CIDH piles, generates a vibration level of 0.089 PPV at 25 feet. This reference level would result in a vibration level of 0.12 PPV at 21 feet. No sensitive land uses are located within 21 feet of construction activity. Therefore, construction activity would not result in adverse vibration levels.

According to the noise and vibration analysis, it is extremely rare for vibration from train operations to cause building damage, even minor cosmetic damage. Train operations can cause building damage to fragile historic buildings located very close to the track. The damage criteria for buildings extremely susceptible to vibration damage is 90 vibration velocity level (VdB). Because none of the predicted vibration levels for historic



properties and/or historical resources exceed 90 VdB, no adverse effects to historic properties are anticipated.

### **5.3 Cumulative Impacts**

Short-term, cumulative effects and impacts resulting from construction include noise, changes in setting, or changes in access. When collectively analyzed, upcoming projects within the project area are not anticipated to have additional effects on historic properties or impacts on historical resources that will be affected by the project.

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# CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

Project No. PS-4330-1968

## Paleontological Resources Technical Memorandum



*Prepared for:*



*Prepared by:*

**PB**

**444 South Flower Street**

**Suite 3700**

**Los Angeles, California 90071**

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## ACRONYMS

Acronym	Definition
BP	Before Present
CEQA	California Environmental Quality Act
LACM	Natural History Museum of Los Angeles County
LAX	Los Angeles International Airport
LRT	Light Rail Transit
Metro	Los Angeles County Metropolitan Transportation Authority
MOS	Minimum Operable Segment
P.L.	Public Law
SVP	Society of Vertebrate Paleontology
SWCA	SWCA Environmental Consultants
U.S.C.	United States Code



## **1.0 INTRODUCTION**

### **1.1 Project Description**

This section describes the alternatives that have been carried forward for study in the Final Environmental Impact Report that satisfy the purpose and need of the project. Details of the No Build and Locally Preferred Alternatives, including design options and phasing options (minimum operable segments [MOS]) are described below.

#### **1.1.1 No Build Alternative**

Transit service under the No Build Alternative is focused on the preservation of existing services and projects. The No Build Alternative does not include any major service improvements or new transportation infrastructure beyond what is listed in the Los Angeles County Metropolitan Transportation Authority's (Metro's) 2009 Long-Range Transportation Plan.

#### **1.1.2 Locally Preferred Alternative**

The Crenshaw/LAX Transit Corridor Project is a proposed transit infrastructure improvement project that would extend approximately 8.5 miles from the Metro Green Line Aviation/LAX Station to the Exposition Light Rail Transit (LRT) line (under construction) at the intersection of Exposition and Crenshaw Boulevards (Figure 1-1). The alignment would be double-tracked and would comprise at-grade street, at-grade railroad, aerial, and below-grade sections. The planned Metro Crenshaw Line would join the Metro Green Line at the Aviation/LAX Station and extend to the Exposition Line Crenshaw Station in the north. Metro Green Line service can also be extended north to serve the new Aviation/Century Station for transfers to the Los Angeles International Airport (LAX). Metro will also consider two MOS. MOS-1 would extend from the Metro Green Line to the Martin Luther King Jr. Station. The incorporation of Design Option 6 would include the remaining underground segment to connect the Crenshaw/Martin Luther King Jr. Station to the Crenshaw/Exposition Station. MOS-2 would extend from the Metro Exposition Line to the Aviation/Century Station. MOS-2 would include the incorporation of Design Option 6 into the base project. These improvements would provide regional benefits to people throughout Los Angeles County.

##### **1.1.2.1 Grade separations**

Proposed grade separations (Figure 1-2) are to be located:

- Along Crenshaw Boulevard between Exposition Boulevard and 48th Street (below grade)
- Between 60th Street and Harbor Subdivision

Along Harbor Subdivision (see Figure 1-2):

- Between Crenshaw Boulevard and Victoria Avenue
- Across La Brea Avenue (below grade)



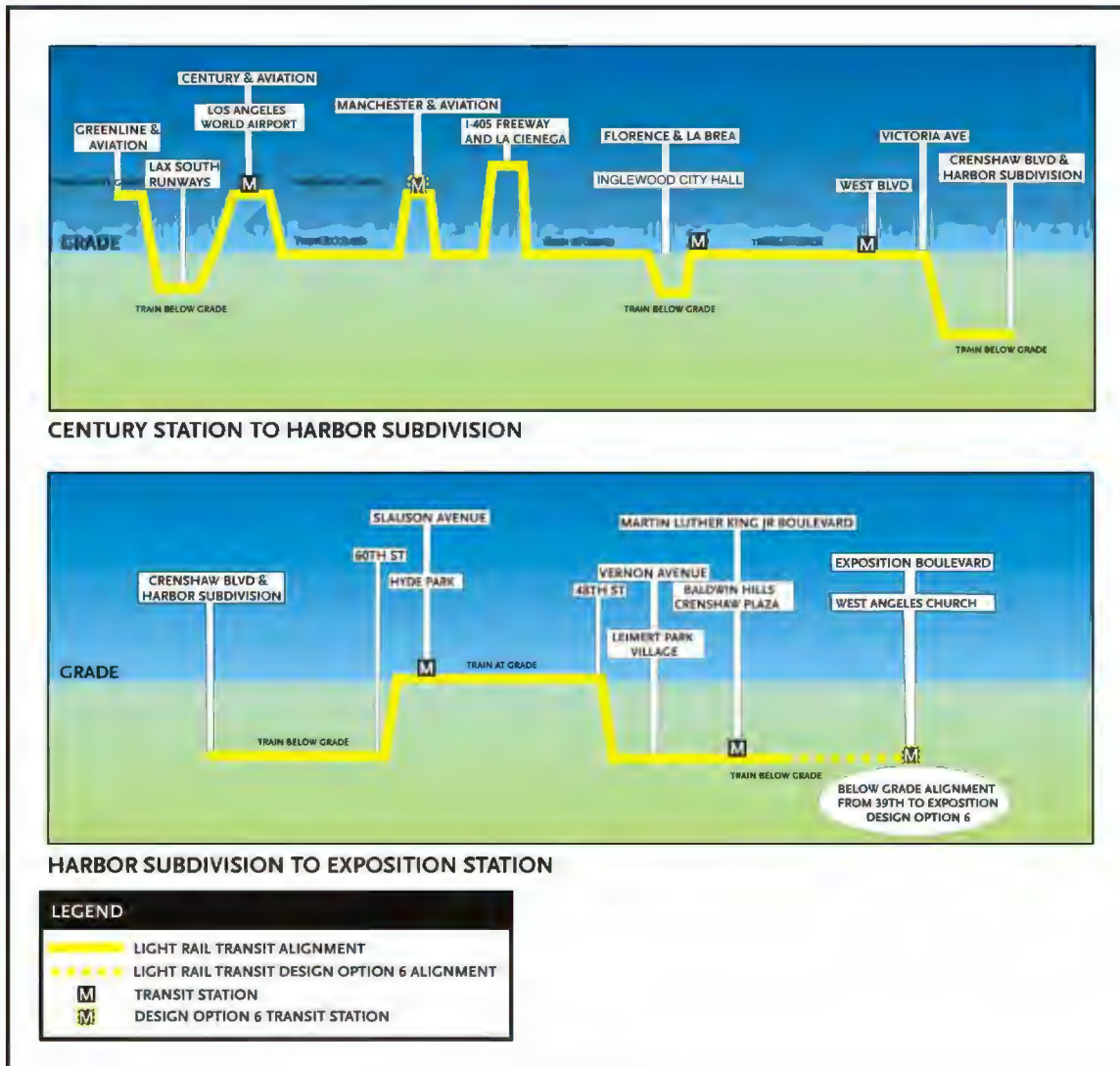
Figure 1-1. Project Alignment



Source: Parsons Brinkerhoff, 2011.



Figure 1-2. Vertical Profile for the Crenshaw/LAX LRT Line



Source: TAHA, 2011.

- Across La Cienega Boulevard/I-405 Freeway (aerial)
- Across Manchester Avenue (aerial)
- Across Century Boulevard (aerial)
- Adjacent to the LAX south runways (below-grade trench)
- Across Centinela Avenue (below grade) (design option)





### 1.1.2.2 Stations

Proposed station locations are planned as follows:

- Century: Aerial station on Century Boulevard just north of the northwest corner of Aviation and Century Boulevards.
- La Brea: At-grade station just north of Market Street, to the west of Florence Avenue.
- West: At-grade center platform station just south of Redondo Boulevard, to the west of West Boulevard.
- Slauson: At-grade center platform station on Crenshaw Boulevard, just south of Slauson Avenue.
- Martin Luther King Jr.: Underground station on Crenshaw Boulevard, just south of Martin Luther King Jr. Boulevard
- Exposition: Underground station on Crenshaw Boulevard just south Exposition Boulevard.
- Optional Manchester: At-grade station east of Manchester Avenue or aerial station across Manchester Avenue, to the west of Aviation Boulevard.
- Optional Vernon Station: Below-grade station on Crenshaw Boulevard, south of Vernon.

### 1.1.2.3 Maintenance Yard

The Crenshaw/LAX LRT Project would require a new maintenance and operations facility. The facility would provide light rail vehicle service and maintenance and storage for vehicles that are not in service. Proposed maintenance facility locations include:

- Site 14: 17.6-acre site bound by Arbor Vitae to the north and Harbor Subdivision to the east.
- Site 15: 20.5-acre site bound by Harbor Subdivision to the west, Aviation Boulevard to the east, and Arbor Vitae Street to the south.
- Site D22N: 3.5-acre site located in the city of Hawthorne, bound by Harbor Subdivision to the north and Isis Avenue to the east.
- Site 17: 14.2-acre site located in the city of Redondo Beach, bound by Redondo Beach Avenue to the west and Harbor Subdivision to the east.

### 1.1.2.4 Route Alignment and Termini

The alignment would begin at the existing Metro Green Line Aviation/LAX Station which is in an aerial configuration, and transition to a below-grade trench configuration, south of 111th Street, as it passes adjacent to the LAX south runways. After clearing the south runways north of 104th Street, the alignment would transition to an aerial configuration across Century Boulevard. At Century Boulevard, the LRT alignment would be on a new bridge constructed west of, and adjacent to, the existing railroad bridge.

The alignment would transition to an at-grade configuration north of the Wally Park structure and operate at-grade across Arbor Vitae Street and would transition to an aerial structure across Manchester Avenue. The alignment would transition back to grade level



for at-grade crossings at Isis and Hindry Avenues. The LRT alignment would transition to an aerial configuration across La Cienega Boulevard and the I-405 Freeway, and would return to grade before Oak Street.

The alignment would continue at grade to the east with at-grade crossings at Oak Street, Cedar Street, Ivy Street, and Eucalyptus Avenue. The alignment would descend to a below-grade trench configuration under La Brea Avenue with an open-cut station to the east of La Brea Avenue. The alignment would transition back to grade east of La Brea Avenue until Victoria Avenue. At-grade crossings would occur at Centinela Avenue, West Boulevard and Brynhurst Avenue and an at-grade station would be located to the west of West Boulevard.

West of Victoria Avenue, the alignment would transition to a below-grade tunnel and continue along the Harbor Subdivision until Crenshaw Boulevard, where it would continue north under Crenshaw Boulevard until north of 59th Place, where it would transition to grade level through a portal in the middle of the Crenshaw Boulevard median. The alignment is required to be below-grade under this segment of Crenshaw Boulevard because the street right-of-way width is 100 feet, which would be insufficient to accommodate an at-grade LRT without reducing roadway lane capacity.

The alignment would travel at grade in a new median of Crenshaw Boulevard south of 59th Street to 48th Street. The frontage roads along Crenshaw Boulevard would be eliminated where the alignment is operating at grade. There would be an at-grade station in the median of Crenshaw Boulevard, south of Slauson Avenue. The alignment would transition to a below-grade configuration north of 48th Street through a portal in the median of Crenshaw Boulevard. The alignment would be below grade for the remainder of the alignment, either to the MOS-1 at Martin Luther King Jr. Boulevard or at Exposition Boulevard, with the incorporation of Design Option 6. The below-grade alignment could be built as either a bored or cut-and-cover tunnel. The choice of tunneling methodology will be based on an analysis of the length and depth of the tunnel section. Below-grade stations would be located in the median of Crenshaw Boulevard at Martin Luther King Jr. and Exposition Boulevards, with portal entrances on properties adjacent to Crenshaw Boulevard.

MOS-2 would follow the same alignment described above, but would begin at the Crenshaw/Exposition Station with the incorporation of Design Option 6 and would terminate at the Aviation/Century Station.

## **1.2 Report Purpose and Structure**

This technical memorandum discusses the results of a paleontological resource analysis of the proposed Crenshaw/LAX Transit Corridor project. The study was performed to evaluate the paleontological sensitivity of the project area and vicinity, assess potential project-related impacts to paleontological resources, and provide recommendations. This analysis included a records search conducted at the Natural History Museum of Los Angeles County (LACM) on February 18, 2011 and a reconnaissance survey performed on February 7, 2011.

This study was conducted in accordance with the professional guidelines established by the Society of Vertebrate Paleontology (SVP) (1995). This technical memorandum will be



filed with Metro, PB, and SWCA Environmental Consultants (SWCA). All records related to the project will also remain on file at the Pasadena office of SWCA.



## **2.0 METHODOLOGY FOR IMPACT EVALUATION**

Paleontological resource sensitivity is defined as the potential for a geologic unit to produce scientifically significant fossils. Due to the nature of the fossil record, paleontologists cannot know either the quality or quantity of fossils present in a given geologic unit prior to natural erosion or human-caused exposure. A comprehensive pedestrian field survey of the project area was not conducted due to the highly urbanized state of the project area; therefore, it is necessary to assess the sensitivity of rock units based on their known potential to produce scientifically significant fossils elsewhere within the same geologic unit (both within and outside of the project area) or a unit representative of the same depositional environment.

### **2.1 Regulatory Framework**

Fossils are classified as nonrenewable scientific resources and are protected by various laws, ordinances, regulations, and standards across the country. The Society of Vertebrate Paleontology (SVP) (1995) has established professional standards for assessment and mitigation of adverse impacts to paleontological resources. This paleontological assessment was conducted in accordance with the regulations and standards that are applicable to paleontological resources within the project area. These regulations and standards are summarized in the following sections.

#### **2.1.1 Federal**

Federal protection for scientifically significant paleontological resources applies to projects if any construction or other related project impacts occur on federally owned or managed lands, involve the crossing of state lines, or are federally funded. The following federal protections may apply to paleontological resources within the project area:

- American Antiquities Act of 1906 (6 United States Code [U.S.C.] 431-433). Establishes a penalty for disturbing or excavating any historic or prehistoric ruin or monument or object of antiquity on federal lands as a maximum fine of \$500 or 90 days in jail.
- The National Environmental Policy Act of 1969, as amended (Public Law [P.L.] 91-190, 42 U.S.C. 4321- 4347, January 1, 1970, as amended by P.L. 94-52, July 3, 1975; P.L. 94-83, August 9, 1975; and P.L. 97-258 Section 4(b), September 13, 1982). Recognizes the continuing responsibility of the federal government to “preserve important historic, cultural and natural aspects of our national heritage” (Section 101 [42 U.S.C. Section 4321], No. 382).
- National Historic Preservation Act of 1966 (P.L. 89-665; 80 Stat. 915, 16 U.S.C. 470 et seq.). Provides for the survey, recovery and preservation of significant paleontological data when such data may be destroyed or lost due to a federal, federally licensed, or federally funded project.
- Federal Land Policy and Management Act of 1976 (43 U.S.C. 1712[c], 1732[b]); Section 2, Federal Land Policy and Management Act of 1962 [30 U.S.C. 611]; Subpart 3631.0 et seq.), *Federal Register* Vol. 47, No. 159, 1982. Defines significant fossils as unique, rare, or particularly well preserved; an unusual assemblage of common fossils; being of high scientific interest; or providing important new data concerning



1) evolutionary trends, 2) development of biological communities, 3) interaction between or among organisms, 4) unusual or spectacular circumstances in the history of life, or 5) anatomical structure.

- Paleontological Resources Preservation Act. Enacted as a result of the passage of the Omnibus Public Lands Management Act of 2009, P.L. 111-011, Title VI, Subtitle D, Paleontological Resources Preservation. Sets forth regulations and provisions pertaining to paleontological resources on all federally administered lands.

### **2.1.2 State**

Guidelines for the Implementation of the California Environmental Quality Act (CEQA), as amended March 29, 1999 (Title 14, Chapter 3, California Code of Regulations: 15000 et seq.) define procedures, types of activities, persons, and public agencies required to comply with CEQA. These guidelines include as one of the questions to be answered in the Environmental Checklist (Section 15023, Appendix G, Section XIV, Part a) the following: “Will the proposed project directly or indirectly destroy a significant paleontological resource or unique geologic feature?”

### **2.1.3 Local**

The Conservation Element of the City of Los Angeles General Plan (adopted September 2001) specifically addresses paleontological resources in Section 3 of Chapter 2. The plan’s paleontological objective is to “protect the city’s archaeological and paleontological resources for historical, cultural, research and/or educational purposes.” Moreover, its policy is to “continue to identify and protect significant archaeological and paleontological sites and/or resources known to exist or that are identified during land development, demolition or property modification activities.”

The County of Los Angeles is in the process of comprehensively updating the existing Los Angeles General Plan, adopted in 1980. In 2007, a Draft Preliminary General Plan was released in which paleontological resources are addressed under Conservation and Open Space, Section VII Historical, Cultural and Paleontological Resources. Programs for Cultural and Historical Resources for CEQA indicate the following:

CEQA provided guidelines for the identification and protection of archaeological sites, artifacts and paleontological resources. If a project threatens an archaeological or paleontological resource, the project is required to provide mitigation measures to protect the site or enable study and documentation of the site. Assessment of these resources requires a survey prepared by a qualified archaeologist or paleontologist.

### **2.1.4 Professional Standards**

The SVP has established standard guidelines (SVP, 1995) that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional vertebrate paleontologists adhere closely to the SVP’s assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. State



regulatory agencies with paleontological regulations and standards typically accept and use the professional standards set forth by the SVP.

As defined by the SVP (1995:26), significant nonrenewable paleontological resources are:

Fossils and fossiliferous deposits here restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.

As defined by the SVP (1995:26), significant fossiliferous deposits are:

A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small and any associated invertebrate and plant fossils, traces and other data that provide taphonomic, taxonomic, phylogenetic, ecologic and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens, which provide datable material and climatic information). Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years, BP [before present].

Based on the significance definitions of the SVP (1995), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

A geologic unit known to contain significant fossils is considered to be sensitive to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either disturb or destroy fossil remains directly or indirectly. This definition of sensitivity differs fundamentally from that for archaeological resources as follows:

It is extremely important to distinguish between archaeological and paleontological (fossil) resource sites when defining the sensitivity of rock units. The boundaries of archaeological sites define the areal extent of the resource. Paleontologic sites, however, indicate that the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontologic potential in each case. (SVP, 1995)



Many archaeological sites contain features that are visually detectable on the surface. In contrast, fossils are contained within surficial sediments or bedrock and are therefore not observable or detectable unless exposed by erosion or human activity. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if these remains are significant, successful mitigation and salvage efforts may be undertaken to prevent adverse impacts to these resources.

## 2.2 Paleontological Sensitivity

The potential for a geologic unit to have a paleontological resource potential (paleontological sensitivity) is determined by rock type, past history in producing significant fossils, and fossil localities recorded from that unit. Paleontological sensitivity is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. The SVP (1995:23) defines three categories of paleontological sensitivity (potential) for sedimentary rock units:

- **High Potential.** Rock units from which vertebrate or significant invertebrate fossils or suites of plant fossils have been recovered and are considered to have a high potential for containing significant nonrenewable fossiliferous resources. These units include, but are not limited to, sedimentary formations and some volcanic formations that contain significant nonrenewable paleontologic resources anywhere within their geographical extent and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical; and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas that contain potentially datable organic remains older than Recent, including deposits associated with nests or middens and areas that may contain new vertebrate deposits, traces, or trackways are also classified as significant.
- **Low Potential.** Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils. Such units will be poorly represented by specimens in institutional collections.
- **Undetermined Potential.** Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potential.

It should be noted that highly metamorphosed rocks and granitic rock units do not generally yield fossils and therefore have low potential to yield significant nonrenewable fossiliferous resources.

In general terms, for geologic units with high potential, full-time monitoring typically is recommended during any project-related ground disturbance. For geologic units with low potential, protection or salvage efforts typically are not required. For geologic units with undetermined potential, field surveys by a qualified paleontologist are usually recommended to specifically determine the paleontologic potential of the rock units present within the study area.



## **3.0 AFFECTED ENVIRONMENT**

The project area is situated within the Cities of Los Angeles and Inglewood. As such, the areas immediately surrounding the project alignment are highly urbanized with commercial, industrial, residential, and public use development.

### **3.1 Resource Assessment Guidelines**

For this project, a paleontological collections records search was conducted by the Vertebrate Paleontology Section of the Natural History Museum of Los Angeles County (LACM). A detailed review of museum collections records was performed to identify any known vertebrate fossil localities within at least 1 mile of the proposed project and to identify the geologic units within the project area and vicinity. In addition, the following published geologic maps were consulted:

- Preliminary geologic map of the Los Angeles 30' x 60' quadrangle, California: Version 1.0, scale 1:100,000 (Yerkes et al., 2005)
- Geologic map of the Venice and Inglewood quadrangles, Los Angeles County, California. Dibblee Geology Center Map #DF-322 (Dibblee, 2007)
- Geologic map of the Hollywood and Burbank (South 1/2) quadrangles, Los Angeles County, California. Dibblee Geology Center Map #DF-30 (Dibblee, 1991)
- Geologic map of the Long Beach 30' x 60' quadrangle, California: a digital database. Southern California Areal Mapping Project, Regional Geologic Map No. 5, scale 1:100,000 (Saucedo et al., 2003)

Following the museum records search and geologic map review, a field reconnaissance survey was conducted for the purposes of inspecting the project area for any rock outcrops, determining areas in which fossil-bearing geologic units could be exposed during project construction, characterizing the site, and documenting the site.

### **3.2 Geologic Setting**

The project area is situated in the southwestern block of the Los Angeles Basin. The Los Angeles Basin is one of many basins making up the Neogene (23 million years ago [Ma] to 2.6 Ma) continental borderland of southern California. It extends from the Santa Ana Mountains in the north to the San Joaquin Hills to the south and includes the southern foothills of the San Gabriel Mountains, the Puente Hills, and the Palos Verdes Hills. The southwestern block is mostly submerged by the Pacific Ocean but is exposed in the low plain extending from Santa Monica southeast to Long Beach (Yerkes et al., 1965).

The Los Angeles basin is a structural depression that has been the site of discontinuous deposition since the Late Cretaceous (99.6 Ma to 65.5 Ma) and of continuous subsidence and primarily marine deposition since the middle Miocene (16 Ma to 11.6 Ma). This and other sedimentary basins formed during the Miocene (23 Ma to 5.3 Ma) and Pliocene (5.3 Ma to 2.6 Ma) as a result of an early San Andreas-type phase of transform motion along the western margin of North America.

At least three cycles of shallow marine transgression and regression created embayments and floodplains along the ancient coastline. During much of the middle Miocene, a northwest-trending marine embayment covered the site of the Los Angeles basin. Rivers





that drained the highlands to the north and east transported and deposited huge volumes of coarse-grained sandstone and sandy cobble-boulder conglomerate into the embayment.

Deposition continued until the end of the Pliocene, at which time the Palos Verdes Hills were an island, and large parts of the Santa Monica Mountains, the Puente Hills, the Santa Ana Mountains, and much of the southwest portions of the basin were exposed. In the early Pleistocene, the Palos Verdes Hills and southwestern areas again subsided and marine deposition resumed (Yerkes, et al., 1965).

### **3.3 Site-specific Geology and Paleontology**

According to published geologic mapping, the Crenshaw/LAX Transit Corridor study area is underlain by the following geologic units: 1) Quaternary older alluvial deposits of Pleistocene age (2.6 Ma to 10,000 years Before Present [BP]) and (2) Quaternary younger alluvial deposits of Holocene age (10,000 years BP to Recent). Additionally, portions of the project area traverse human-made artificial fill (Figures 3-1 and 3-2).

#### **3.3.1 Quaternary Older Alluvial Deposits**

Quaternary older alluvial deposits underlie the majority of the project alignment from south of the intersection of Crenshaw Boulevard and West 48th Street to the southern terminus. These older surficial deposits are unconsolidated to weakly consolidated and locally dissected where elevated and are composed of gray to light brown pebble-gravel, sand, and silty clay (Dibblee, 2007).

Throughout southern California, older alluvium and alluvial terrace deposits have produced Pleistocene-age fossils from numerous localities. Sixty Pleistocene localities, exclusive of Rancho La Brea, were reviewed by Miller (1971), and many localities have been discovered since then. Pleistocene taxa from alluvial and terrace deposits include amphibians (toad, frog, newt), reptiles (pond turtle, desert tortoise, fence lizard, alligator lizard, rattlesnake, gopher snake), birds (duck, hawk, burrowing owl, quail, coot, sparrow) and mammals (shrew, ground sloth, jack rabbit, cottontail rabbit, ground squirrel, pocket gopher, pocket mouse, kangaroo rat, deer mouse, mouse, wood rat, vole, muskrat, coyote, dire wolf, weasel, sabertooth cat, mammoth, mastodon, horse, camel, antelope, deer, bison) (Miller, 1971). Older alluvium (sediments not part of an active stream channel) can provide important paleoecological data even if it does not contain the remains of extinct organisms. Older alluvium has been assigned a high paleontological resource sensitivity (Figures 3-3 and 3-4).

Figure 3-1. Geologic Map (Northern Portion)

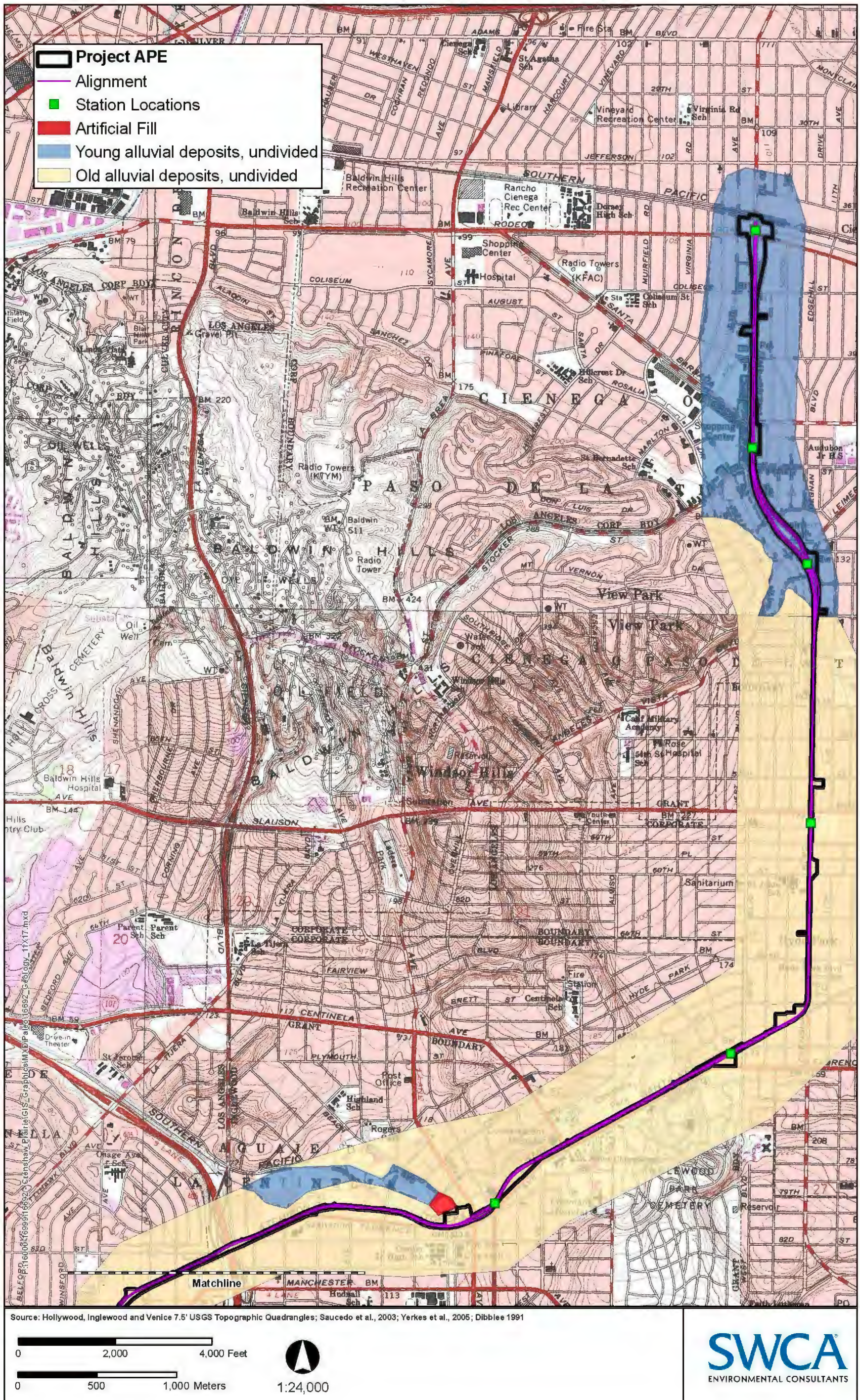


Figure 3-2. Geologic Map (Southern Portion)

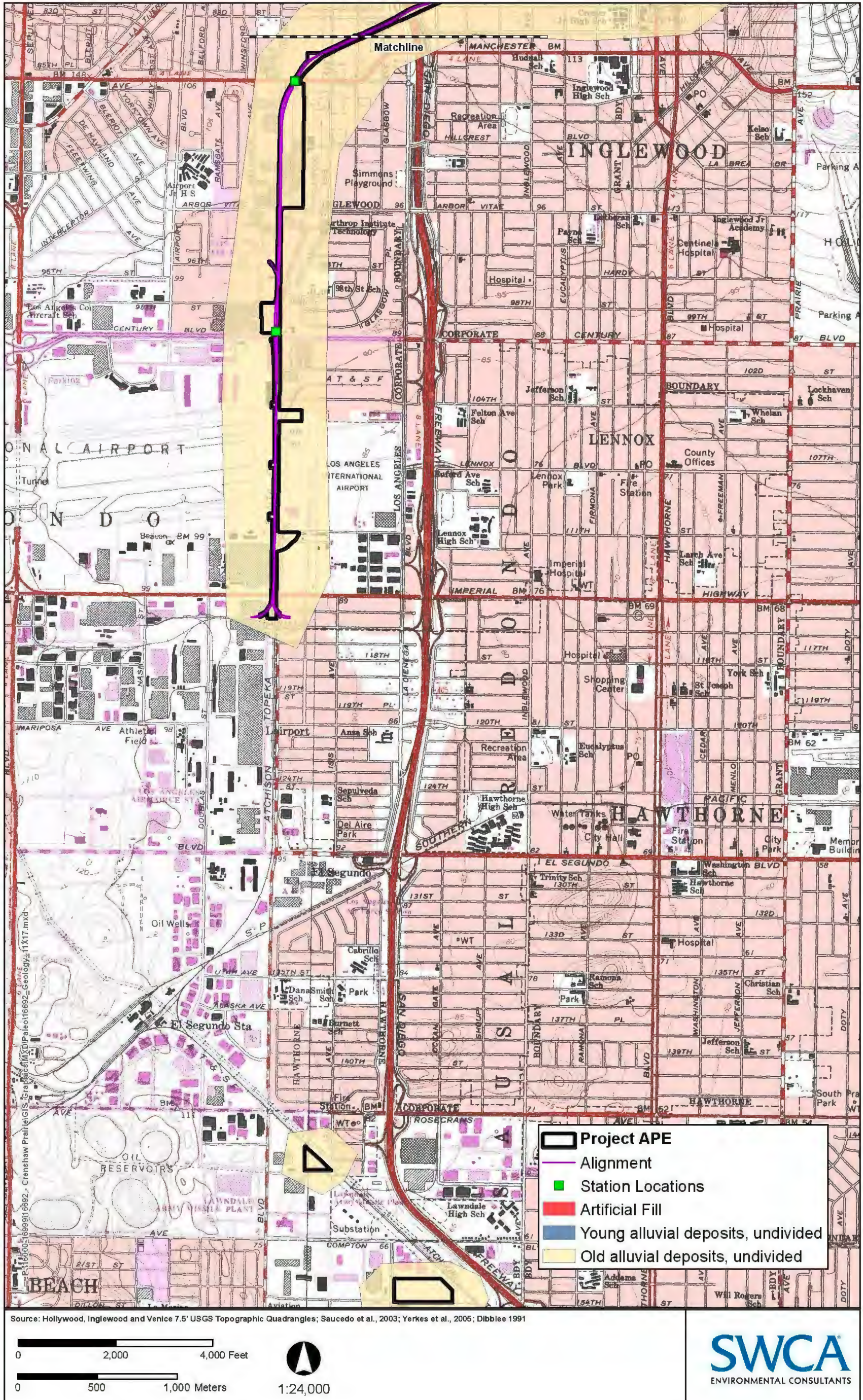


Figure 3-3. Paleontological Sensitivity Map (Northern Portion)

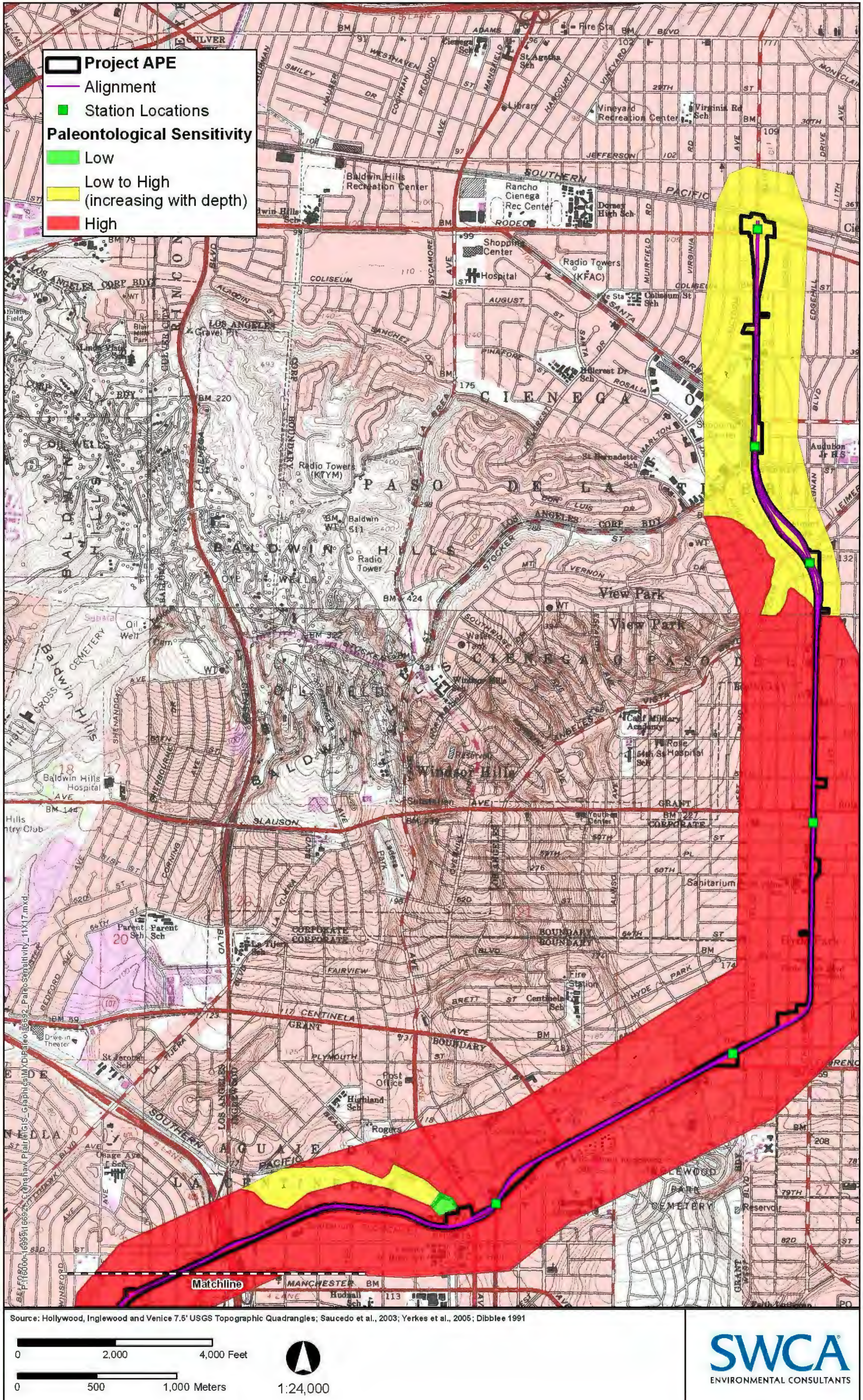
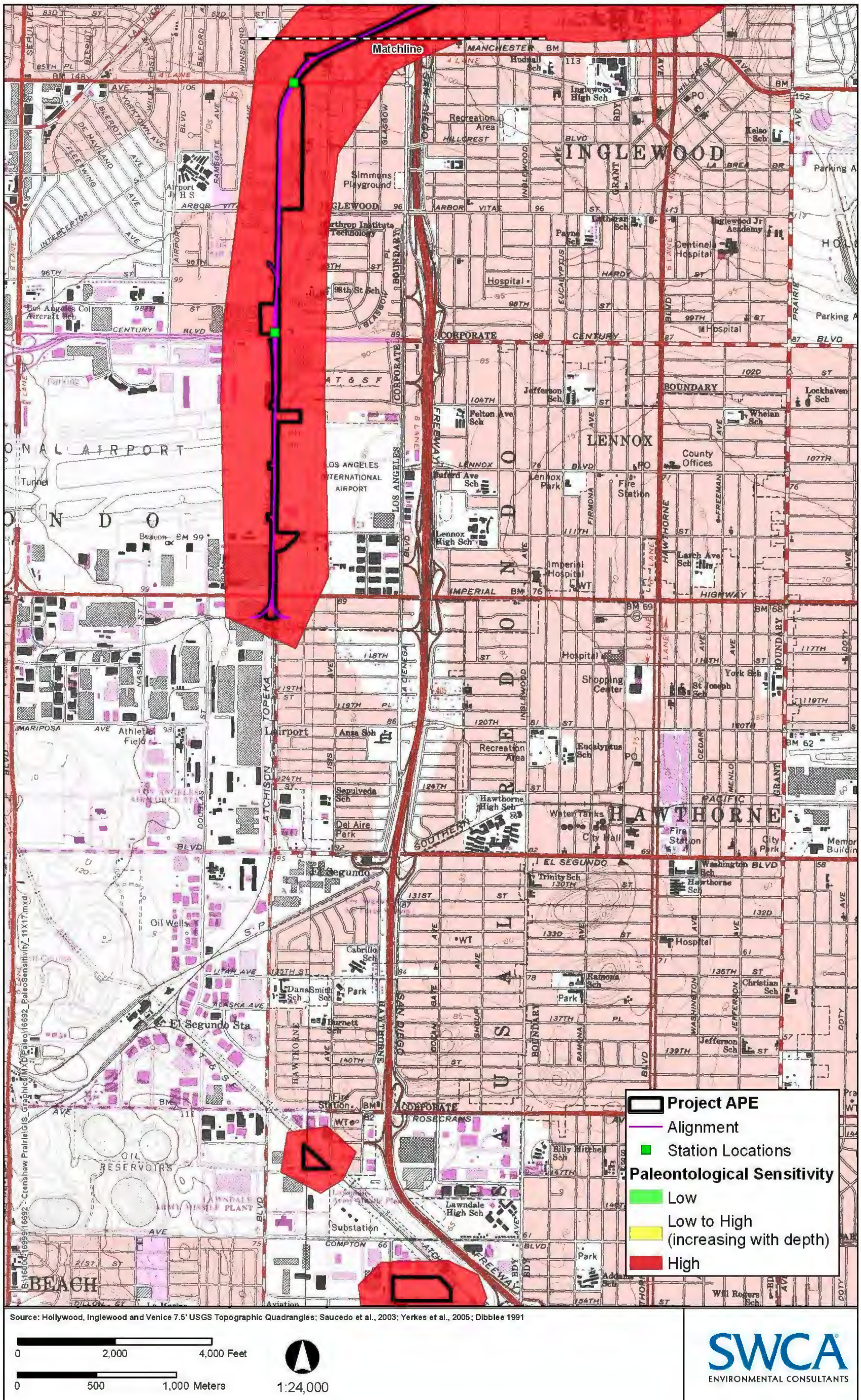


Figure 3-4. Paleontological Sensitivity Map (Southern Portion)





### **3.3.2 Quaternary Younger Alluvial Deposits**

Quaternary younger alluvial deposits underlie approximately the northern one-third of the project alignment north of the intersection of Crenshaw Boulevard and West 48th Street to the northern terminus. Surficial deposits of younger Quaternary alluvium consist of unconsolidated gravel, sand, silt, and clay deposited in modern stream channels and fluvial slope wash. These young sediments may overlie older alluvium at varying depths. Older alluvial sediments may be slightly to moderately consolidated but are generally only distinguishable through relative dating and stratigraphic position.

Holocene-aged deposits contain the remains of modern organisms and are too young to contain fossils. Younger alluvial deposits have been determined to have a low potential for paleontological resources. However, because they are often underlain by older alluvium, they are considered to have a paleontological sensitivity ranging from low to high, increasing with depth (see Figures 3-3 and 3-4).

### **3.4 Museum Records Search Results**

Museum collections records maintained by the LACM were searched, and 13 previously recorded vertebrate fossil localities were discovered in the immediate and general vicinity of the project area (Table 3-1). These vertebrate fossil localities were discovered within the same or similar geologic sediments that are present within the project area. Each locality yielded one or more vertebrate fossil specimen, including small terrestrial mammals such as rodents and large megafauna such as mammoths and mastodons. For these localities, the depth of discovery ranged from 6 feet to 40 feet below the ground surface (Rhue, 2011).

A field reconnaissance survey was performed to examine the project area for any potential rock outcrops or surface exposures of the underlying geology. A windshield survey was conducted in all areas accessible by automobile. The reconnaissance survey confirmed that the project area is highly disturbed by existing urban structures and no surficial exposures of Quaternary alluvial deposits, young or old, were apparent.



**Table 3-1. Previously Discovered Paleontological Resources In and Around the Project Area**

LACM Locality Number(s) and Approximate Location	Geologic Formation	Age	Taxa
LACM 1159; just west of the northern terminus of the project area near the intersection of Rodeo Road and Buckingham Road	Quaternary sediments	Pleistocene?	<i>Homo sapiens</i> (human)
LACM 3366, 3367, 3369, and 3370; west of the northern terminus of the project area along the Southern Pacific Railway and Rodeo Road between Crenshaw Boulevard and Ballona Creek	Older Quaternary sediments	Pleistocene	<i>Camelops</i> (camel), <i>Mammut</i> (mastodon), <i>Equus</i> (horse), and <i>Smilodon</i> (sabertooth cat)
LACM 3252; in the Hyde Park area south of Hyde Park Boulevard and east of Crenshaw Boulevard west of 8th Avenue	Older Quaternary sediments	Pleistocene	<i>Bison</i> (bison) and <i>Camelops</i> (camel)
LACM 5888; south of Florence Avenue and east of Crenshaw Boulevard east of 8th Avenue	Older Quaternary sediments	Pleistocene	<i>Mammut</i> (mastodon)
LACM 1170; in Centinela Park, east of Centinela Avenue and bounded on the southeast by Florence Avenue	Quaternary (Late Pleistocene) sands	Late Pleistocene	<i>Fulica americana</i> (coot), <i>Megalonyx jeffersoni</i> (ground sloth), <i>Mammut americana</i> (mastodon), Rodentia (rodent), <i>Mustela frenata</i> (weasel), <i>Smilodon californicus</i> (sabertooth cat) <i>Equus</i> (horse), <i>Platygonus</i> (peccary), <i>Camelops hesternus</i> (camel), <i>Capromeryx minor</i> (pronghorn antelope), <i>Odocoileus hemionus</i> (deer), and <i>Bison antiquus</i> (bison)
LACM 1180; near the intersection of Manchester Avenue and Airport Boulevard	Older Quaternary sediments	Pleistocene	<i>Mammuthus</i> (mammoth), <i>Equus</i> (horse)
LACM 4942; directly across Manchester Avenue from locality LACM 1180	Older Quaternary sediments	Pleistocene	<i>Bison</i> (bison)
LACM 3789; just south of Manchester Avenue east of Bellanca Avenue	Older Quaternary sediments	Pleistocene	<i>Citharichthys stigmaeus</i> (speckled sanddab), <i>Mammuthus</i> (mammoth), and Rodentia (rodent)



LACM Locality Number(s) and Approximate Location	Geologic Formation	Age	Taxa
LACM 7332; north of Century Boulevard and east of Airport Boulevard	Older Quaternary sediments	Pleistocene	<i>Mammuthus</i> (mammoth)
LACM 3264; LAX Airport	Older Quaternary sediments	Pleistocene	Proboscidea (fossil elephant)

Source: Rhue, 2011





## **4.0 IMPACTS**

Surface fossils may be located, evaluated, and salvaged by paleontologists during a field survey prior to a surface-disturbing action. The Crenshaw/LAX Transit Corridor project area surface is largely obscured by urbanization, and a comprehensive field survey was not warranted. However, subsurface fossils that are not visible cannot be located and evaluated prior to ground disturbance. Any estimates of adverse impacts to subsurface fossils can be predicted only by determining the number and types of fossils that occur in the study area, based on projections derived from similar areas. The existence of subsurface fossils can be definitively determined only by monitoring excavations during surface-disturbing actions.

Direct adverse impacts on surface or subsurface paleontological resources are the result of destruction by breakage and crushing, typically in construction-related excavations. In areas containing paleontologically sensitive geologic units, surface disturbance has the potential to adversely impact an unknown quantity of surface and subsurface fossils. Without mitigation, these fossils, as well as the paleontological data they could provide if properly salvaged and documented, could be adversely impacted (destroyed), rendering them permanently unavailable. Direct adverse impacts can typically be mitigated to below a level of significance by implementing paleontological mitigation. Mitigation also creates a beneficial effect because it results in the salvage of fossils that may never have been unearthed via natural processes. With mitigation, these newly salvaged fossils become available for scientific research, education, display, and preservation in perpetuity at a public museum.

Indirect adverse impacts typically include those effects that result from continued implementation of management decisions and resulting activities, including normal ongoing operations of facilities constructed within a given project area. They also occur as the result of constructing new access roads in areas that were previously less accessible. This increases public access and therefore increases the likelihood of the loss of paleontological resources through vandalism and unlawful collecting. No indirect impacts are expected as the result of this project because the project area is highly urbanized.

Cumulative impacts on the environment can result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions on the cumulative effects area. They can result from individually minor, but collectively significant, actions taken over a period of time. The incremental loss of paleontological resources over a period of time as a result of project-related ground disturbance has the potential to result in significant cumulative effects because it could result in destruction of nonrenewable paleontological resources and irretrievable loss of scientific information. However, when paleontological monitoring and mitigation are implemented prior to and during project construction, fossils are protected and information is obtained. By implementing monitoring and mitigation where feasible, the cumulative effects to paleontological resources resulting from the project would be negligible. Further, any scientifically significant fossils discovered prior to or during ground disturbances related to the project would benefit the scientific community by increasing knowledge associated with the fossils.



## **5.0 RECOMMENDED MITIGATION MEASURES**

### **5.1 Construction Impacts Mitigation Measures**

The following mitigation measures have been developed in accordance with the Society of Vertebrate Paleontology (SVP) (1995) standards and guidelines and meet the paleontological requirements of the California Environmental Quality Act (CEQA). These mitigation measures have been used throughout California and have been demonstrated to be successful in protecting paleontological resources while allowing timely completion of construction.

- A qualified paleontologist would produce a Paleontological Monitoring and Mitigation Plan for the proposed project and supervise monitoring of construction excavations. Paleontological resource monitoring would include inspection of exposed rock units during active excavations within geologically sensitive sediments. The monitor would have authority to temporarily divert grading away from exposed fossils in order to professionally and efficiently recover the fossil specimens and collect associated data. All efforts to avoid delays in project schedules would be made.
- All project-related ground disturbances that could potentially affect previously undisturbed Quaternary older alluvial deposits would be monitored by a qualified paleontological monitor under the supervision of a qualified paleontologist on a full-time basis because these geologic units have been determined to have a high paleontological sensitivity. Very shallow surficial excavations (less than 5 feet) within areas of previous disturbance or areas mapped as Quaternary younger alluvial deposits or artificial fill would be monitored on a part-time basis to ensure that underlying sensitive units (i.e., older alluvium) are not adversely affected. The location of subsurface sensitive sediments would be determined by the qualified paleontologist upon review of project grading plans.
- To prevent construction delays, paleontological monitors would be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data. This equipment would include handheld global positioning system receivers, digital cameras, and cell phones, as well as a tool kit with specimen containers, matrix sampling bags, field labels, field tools (awls, hammers, chisels, shovels, etc.), and plaster kits. At each fossil locality, field data forms would be used to record pertinent geologic data, stratigraphic sections would be measured, and appropriate sediment samples would be collected and submitted for analysis.
- The collected fossils would be transported to a paleontological laboratory for processing where they would be prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and repositied in a designated paleontological curation facility (such as the Natural History Museum of Los Angeles County [LACM]).
- The qualified paleontologist would prepare a final monitoring and mitigation report to be filed, at a minimum, with Los Angeles County Metropolitan Transportation Authority (Metro) and the repository. The final report would include, but not be limited to, a discussion of the results of the mitigation and monitoring program, an evaluation and analysis of the fossils collected (including an assessment of their significance, age, and geologic context), an itemized inventory of fossils collected, a confidential appendix of locality and specimen data with locality maps and



photographs, an appendix of curation agreements and other appropriate communications, and a copy of the project-specific paleontological monitoring and mitigation plan.

**5.2 Operational Impacts Mitigation Measures**

No mitigation would be required because operational impacts to paleontological resources are not expected.



## **6.0 CONCLUSIONS**

The potential for direct and indirect effects to paleontological resources is best estimated by the amount of ground disturbance within paleontologically sensitive units associated with a proposed action. Thus, the potential for project-related impacts to paleontological resources increases as the amount of surface disturbance within paleontologically sensitive geologic formations increases.

Construction of the project could require various levels of ground disturbances in the paleontologically sensitive Quaternary older alluvial deposits. Implementing proper mitigation measures, including construction monitoring where feasible, would reduce potential impacts to paleontological resources to below the level of significance.

### **6.1 National Environmental Policy Act Findings**

The results of this analysis indicate that the geologic units underlying the project area are paleontologically sensitive and that construction of the project has the potential to impact previously undiscovered (buried) paleontological resources. By implementing the mitigation measures identified in Section 5, the potential direct and cumulative effects to paleontological resources resulting from the project would be negligible. Furthermore, scientifically significant fossils discovered prior to or during ground disturbances related to the project would benefit the scientific community by increasing knowledge associated with the fossils.

### **6.2 California Environmental Quality Act Determinations**

The California Environmental Quality Act (CEQA) threshold of significance for a significant impact to paleontological resources is reached when a project is determined to “directly or indirectly destroy a significant paleontological resource or unique geologic feature.” In general, for project areas that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources.

By implementing the mitigation measures identified in Section 5, potential construction impacts to paleontological resources resulting from the project could be reduced to below the level of significance.



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# CRENSHAW/LAX TRANSIT CORRIDOR PROJECT

Project No. PS-4330-1968

## Cultural Resources – Archaeology Technical Report



*Prepared for:*



*Prepared by:*

**SWCA Environmental Consultants**  
150 S. Arroyo, 2nd Floor  
Pasadena, California 91105

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## **1.0 SUMMARY**

### **1.1 Purpose and Scope**

SWCA Environmental Consultants (SWCA) conducted an archaeological survey of the approximately 8.5-mile-long direct area of potential effects (APE) for the proposed Crenshaw/LAX Transit Corridor Project. The Corridor is located within the Cities of Los Angeles and Inglewood in Los Angeles County, California. The proposed project would improve transit infrastructure by extending light rail transit approximately 8.5 miles from the Metro Green Line Aviation/LAX Station to the Exposition Light Rail Transit (LRT) line at the intersection of Exposition and Crenshaw Boulevards. The Crenshaw/LAX Line would join the Metro Green Line at the Aviation/LAX Station and extend to the Exposition Line Crenshaw Station in the north. Metro Green Line service could also be extended north to serve the new Century Station for transfers to the Los Angeles International Airport (LAX). These improvements would benefit people throughout Los Angeles County.

### **1.2 Dates of Investigation**

SWCA conducted a cultural resources records search for the project on January 2, 2008. The Native American Heritage Commission (NAHC) performed a Sacred Lands File search for the project on June 15, 2010. SWCA conducted an archaeological survey of the direct APE on February 7, 2011. This report was completed on March 4, 2011.

### **1.3 Investigation Constraints**

Because of the urban nature of the project area, the majority of the direct APE is covered in buildings, pavement, or landscaping. Consequently, ground-surface visibility ranged from extremely poor (0–5 percent) to fair (30 percent) throughout the project area. Average visibility was extremely poor (less than 5 percent). Three areas of the direct APE could not be accessed due to fencing (see Section 4.4.2).

### **1.4 Summary of Findings**

The records and literature search indicates that three previously recorded archaeological resources are located within a 0.25-mile radius of the APE. Two of these resources are prehistoric archaeological sites, and the nature of the third is unknown due to missing site forms. Of the three previously recorded archaeological resources, none are located within the direct APE. One (CA-LAN-80) is located immediately adjacent to the direct APE and two (CA-LAN-171 and CA-LAN-1336) are within 0.25 mile of the direct APE. The records and literature search also identified 50 previously conducted cultural resources studies within a 0.25-mile radius of the APE. Fourteen of these studies include part of the project direct APE, and five are adjacent to the direct APE.

The NAHC Sacred Lands File search indicated the presence of cultural resources within 0.5 mile of the project area that are important to Native Americans. The NAHC response included a list of nine Native American contacts that may have knowledge of cultural resources in the project area. SWCA sent letters that included location maps and a description of the proposed project and its APE to these contacts via U.S. mail. Each



letter was followed by a telephone call. Two of the Native American contacts provided input, as is documented in Table 3-1.

During the survey of the direct APE, SWCA did not encounter any newly identified archaeological resources within the direct APE. SWCA personnel did attempt to re-locate a previously recorded site (CA-LAN-80) located immediately adjacent to the direct APE. Re-location of this site was attempted due to the presence of previously recorded, deeply buried human remains, indicating the potential for similar discoveries during ground-disturbing activities within the direct APE. The survey did not re-locate the site; a Wal-Mart and parking lot currently occupy the site's location and no evidence of the site is currently visible.

## **1.5 Potential Impacts**

Background research indicates there is the potential to encounter subsurface archaeological deposits during construction of the proposed project. As a result, most of the direct APE is considered sensitive for the presence of historical resources, including both prehistoric and historic archaeological sites. The Locally Preferred Alternative (LPA) has the potential to alter, remove, or destroy previously unrecorded archaeological resources and previously undiscovered portions of site CA-LAN-80 within the APE. These potential impacts include direct construction impacts and direct cumulative impacts.

## **1.6 Recommendations**

Although no previously recorded archaeological resources are present within the direct APE, there is still the potential to encounter previously unrecorded resources during construction of the proposed project. Implementation of mitigation measure AR-1, Treatment of Previously Unrecorded Archaeological Resources would reduce both direct and cumulative impacts to any previously unrecorded archaeological resources that may be encountered during construction. After mitigation, potential construction and cumulative impacts would not be significant under both the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA).

## **1.7 Disposition of Data**

This report will be filed with the Federal Transit Administration (FTA); Metro; PB Americas; the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton; and SWCA. All field notes and records related to the project will remain on file at the Pasadena office of SWCA.



## **2.0 INTRODUCTION**

This technical report identifies archaeological resources and analyzes the potential effects of the construction and implementation of the planned Crenshaw Transit Corridor Project. Historic built environment and paleontological resources are addressed in separate reports.

### **2.1 Regulatory Setting**

National Environmental Policy Act (NEPA) guidelines require compliance with related Federal laws that require the identification of historic properties and consideration of project-related effects on those properties. This report was prepared to comply with Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended, and with regulations contained in 36 Code of Federal Regulations (C.F.R.) Part 800. These regulations require Federal agencies to consider the effects of proposed projects on historic properties as part of the environmental assessment process.

This report was also prepared to comply with requirements of California Environmental Quality Act (CEQA) and the CEQA guidelines (CERES, 2009) as they apply to cultural resources. Under CEQA, it is necessary for a lead agency to evaluate proposed projects for the potential to cause significant impacts on historical resources. A proposed project that may affect historical resources is submitted to the State Historic Preservation Officer for review and comment prior to project approval by the lead agency and before any project-related clearance, demolition, or construction activities have commenced. If a proposed project could be expected to cause substantial adverse change to a historical resource, environmental clearance for the project would require the evaluation of alternatives and/or implementation of mitigation measures to reduce or avoid impacts. If a project is expected to result in an impact on historical resources, CEQA guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project and avoid or substantially lessen any significant impacts on the historical resource.

Properties that may be historic properties/historical resources within the identified project's area of potential effects (APE) were evaluated for National Register of Historic Places (NRHP) eligibility, according to criteria set forth in 36 C.F.R. Part 60.4. The age criterion for inclusion in the NRHP is 50 years and older, except in cases of overriding significance (Criteria Consideration G). Consequently, properties that will be more than 50 years old upon completion of construction in 2018 were included in this analysis. The properties were also considered for California Register of Historical Resources (CRHR) eligibility; although there is no established age threshold for the CRHR, the same 50-year cutoff was used for this project. Under Public Resources Code (P.R.C.) Section 5024.1, the CRHR was established to serve as an authoritative guide to the state's significant historical and archaeological resources.

If a proposed project and its related impacts would adversely affect the values of an archaeological resource that is either listed in or determined eligible for inclusion in the NRHP or CRHR, such effects and/or impacts would be considered adverse.



## **2.2 Project Personnel**

SWCA archaeologist Cheryle Hunt, B.A., conducted the pedestrian survey for the project. Robert S. Ramirez, M.A., Registered Professional Archaeologist (RPA), coauthored the report with John Dietler, Ph.D., RPA, who also served as principal investigator for the project. SWCA GIS specialist Emily Kochert created the maps and figures used in this report. Lara Bjork served as technical editor for this report. Shannon Carmack served as cultural resources task manager and Cara Corsetti served as the project manager.

## **2.3 Project Description**

This section describes the alternatives that have been carried forward for study in the Final Environmental Impact Report that satisfy the purpose and need of the project. Details of the No Build and Locally Preferred Alternatives, including design options and phasing options (minimum operable segments [MOS]) are described below.

### **2.3.1 No Build Alternative**

Transit service under the No Build Alternative is focused on the preservation of existing services and projects. The No Build Alternative does not include any major service improvements or new transportation infrastructure beyond what is listed in Metro's 2009 Long-Range Transportation Plan.

### **2.3.2 Locally Preferred Alternative**

The Crenshaw/LAX Transit Corridor Project is a proposed transit infrastructure improvement project that would extend approximately 8.5 miles from the Metro Green Line Aviation/LAX Station to the Exposition Light Rail Transit (LRT) line (under construction) at the intersection of Exposition and Crenshaw Boulevards (Figure 2-1). The alignment would be double-tracked and would comprise at-grade street, at-grade railroad, aerial, and below-grade sections. The planned Metro Crenshaw Line would join the Metro Green Line at the Aviation/LAX Station and extend to the Exposition Line Crenshaw Station in the north. Metro Green Line service can also be extended north to serve the new Aviation/Century Station for transfers to the Los Angeles International Airport (LAX). Metro will also consider two MOSs. MOS-1 would extend from the Metro Green Line to the Martin Luther King Jr. Station. The incorporation of Design Option 6 would include the remaining underground segment to connect the Crenshaw/Martin Luther King Jr. Station to the Crenshaw/Exposition Station. MOS-2 would extend from the Metro Exposition Line to the Aviation/Century Station. MOS-2 would include the incorporation of Design Option 6 into the base project. These improvements would provide regional benefits to people throughout Los Angeles County.



Figure 2-1. Project Alignment



Source: Parsons Brinkerhoff, 2011.

**2.3.2.1 Grade separations**

Proposed grade separations (Figure 2-2) are to be located:

- Along Crenshaw Boulevard between Exposition Boulevard and 48th Street (below grade)
- Between 60th Street and Harbor Subdivision

Along Harbor Subdivision (see Figure 2-2):

- Between Crenshaw Boulevard and Victoria Avenue
- Across La Brea Avenue (below grade)
- Across La Cienega Boulevard/I-405 Freeway (aerial)
- Across Manchester Avenue (aerial)
- Across Century Boulevard (aerial)
- Adjacent to the LAX south runways (below-grade trench)
- Across Centinela Avenue (below grade) (design option)

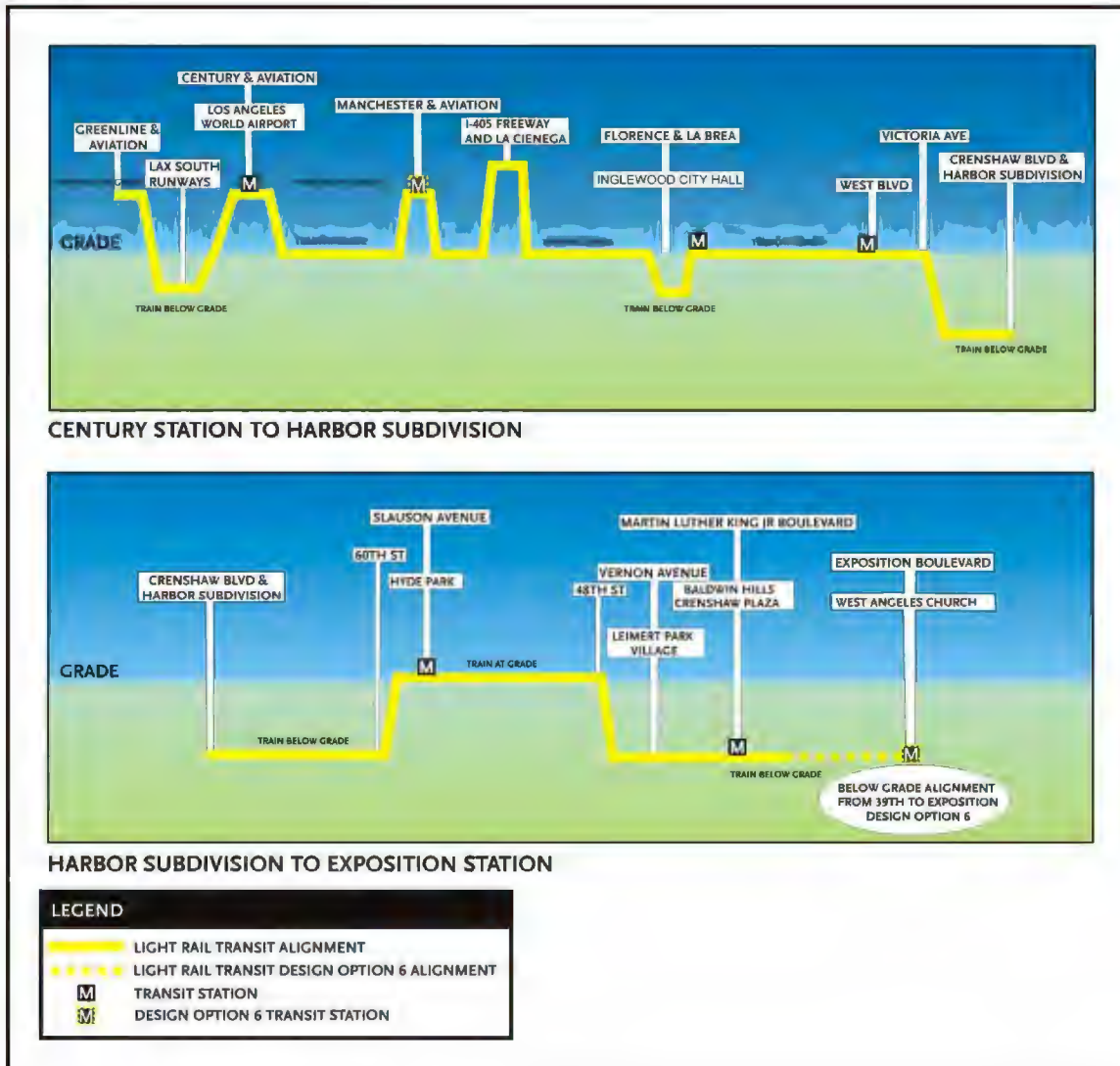
**2.3.2.2 Stations**

Proposed station locations are planned as follows:

- Century: Aerial station on Century Boulevard just north of the northwest corner of Aviation and Century Boulevards.
- La Brea: At-grade station just north of Market Street, to the west of Florence Avenue.
- West: At-grade center platform station just south of Redondo Boulevard, to the west of West Boulevard.
- Slauson: At-grade center platform station on Crenshaw Boulevard, just south of Slauson Avenue.
- Martin Luther King Jr.: Underground station on Crenshaw Boulevard, just south of Martin Luther King Jr. Boulevard
- Exposition: Underground station on Crenshaw Boulevard just south Exposition Boulevard.
- Optional Manchester: At-grade station east of Manchester Avenue or aerial station across Manchester Avenue, to the west of Aviation Boulevard.
- Optional Vernon Station: Below-grade station on Crenshaw Boulevard, south of Vernon.



Figure 2-2. Vertical Profile for the Crenshaw/LAX LRT Line



Source: TAHA, 2011.

### 2.3.2.3 Maintenance Yard

The Crenshaw/LAX LRT Project would require a new maintenance and operations facility. The facility would provide light rail vehicle (LRV) service and maintenance and storage for vehicles that are not in service. Proposed maintenance facility locations include:

- Site 14: 17.6-acre site bound by Arbor Vitae to the north and Harbor Subdivision to the east.
- Site 15: 20.5-acre site bound by Harbor Subdivision to the west, Aviation Boulevard to the east, and Arbor Vitae Street to the south.



- Site D22N: 3.5-acre site located in the city of Hawthorne, bound by Harbor Subdivision to the north and Isis Avenue to the east.
- Site 17: 14.2-acre site located in the city of Redondo Beach, bound by Redondo Beach Avenue to the west and Harbor Subdivision to the east.

#### **2.3.2.4 Route Alignment and Termini**

The alignment would begin at the existing Metro Green Line Aviation/LAX Station which is in an aerial configuration, and transition to a below-grade trench configuration, south of 111th Street, as it passes adjacent to the LAX south runways. After clearing the south runways north of 104th Street, the alignment would transition to an aerial configuration across Century Boulevard. At Century Boulevard, the LRT alignment would be on a new bridge constructed west of, and adjacent to, the existing railroad bridge.

The alignment would transition to an at-grade configuration north of the Wally Park structure and operate at-grade across Arbor Vitae Street and would transition to an aerial structure across Manchester Avenue. The alignment would transition back to grade level for at-grade crossings at Isis and Hindry Avenues. The LRT alignment would transition to an aerial configuration across La Cienega Boulevard and the I-405 Freeway, and would return to grade before Oak Street.

The alignment would continue at grade to the east with at-grade crossings at Oak Street, Cedar Street, Ivy Street, and Eucalyptus Avenue. The alignment would descend to a below-grade trench configuration under La Brea Avenue with an open-cut station to the east of La Brea Avenue. The alignment would transition back to grade east of La Brea Avenue until Victoria Avenue. At-grade crossings would occur at Centinela Avenue, West Boulevard and Brynhurst Avenue and an at-grade station would be located to the west of West Boulevard.

West of Victoria Avenue, the alignment would transition to a below-grade tunnel and continue along the Harbor Subdivision until Crenshaw Boulevard, where it would continue north under Crenshaw Boulevard until north of 59th Place, where it would transition to grade level through a portal in the middle of the Crenshaw Boulevard median. The alignment is required to be below-grade under this segment of Crenshaw Boulevard because the street right-of-way width is 100 feet, which would be insufficient to accommodate an at-grade LRT without reducing roadway lane capacity.

The alignment would travel at grade in a new median of Crenshaw Boulevard south of 59th Street to 48th Street. The frontage roads along Crenshaw Boulevard would be eliminated where the alignment is operating at grade. There would be an at-grade station in the median of Crenshaw Boulevard, south of Slauson Avenue. The alignment would transition to a below-grade configuration north of 48th Street through a portal in the median of Crenshaw Boulevard. The alignment would be below grade for the remainder of the alignment, either to the MOS-1 at Martin Luther King Jr. Boulevard or at Exposition Boulevard, with the incorporation of Design Option 6. The below-grade alignment could be built as either a bored or cut-and-cover tunnel. The choice of tunneling methodology will be based on an analysis of the length and depth of the tunnel section. Below-grade stations would be located in the median of Crenshaw Boulevard at





Martin Luther King Jr. and Exposition Boulevards, with portal entrances on properties adjacent to Crenshaw Boulevard.

MOS-2 would follow the same alignment described above, but would begin at the Crenshaw/Exposition Station with the incorporation of Design Option 6 and would terminate at the Aviation/Century Station.



## **3.0 METHODOLOGY FOR IMPACT EVALUATION**

This section describes the processes for identifying cultural resources, determining the significance of those resources, evaluating potential effects from construction and operation of the project including potential permanent changes to historic properties and/or their contextual settings; this section also states the thresholds of significance that are applied to potential impacts. Section 4.0 describes the historic properties identified in the project area and their significance. Section 5.0 evaluates potential direct, indirect, and cumulative impacts to these resources from construction and operation.

### **3.1 Definition of Historic Resources and Standards of Significance**

#### **3.1.1 Federal**

A number of Federal laws address the protection of historic and cultural resources. The analysis of potential effects to cultural resources is primarily guided by the National Environmental Policy Act of 1969 (NEPA), Section 106 of the National Historic Preservation Act (NHPA), and Section 4(f) of the Department of Transportation Act (DOT Act) of 1966.

##### **3.1.1.1 National Environmental Policy Act**

The intent of NEPA is to protect the environment, including historic properties, from adverse effects resulting from Federal actions. Before a Federal agency may proceed with a proposed action, an environmental evaluation must be made to determine whether the action may have a significant effect on the environment. Effects on historic properties are usually assessed in coordination with the process established under Section 106 of the NHPA. Normally, the Section 106 process must be completed before an Environmental Impact Statement can be finalized.

Generally under NEPA, historic and cultural resources include properties that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). Although NEPA does not provide specific definitions or criteria for determining the significance of historic properties, California Environmental Quality Act (CEQA) guidelines direct agencies to comply with Section 106 of the NHPA in order to be in compliance with NEPA.

NEPA does require Federal agencies to evaluate the significance of potential project-related effects including both direct (tangible, such as demolition or alteration) and indirect (less tangible, such as noise or visual) effects. NEPA does provide guidance for determining significance as a measure of impact intensity (Section 1508.27).

Intensity refers to the severity of impact. Decision makers must bear in mind that more than one agency may make decisions about partial aspects of a major action. The following should be considered in evaluating intensity:

- Impacts may be both beneficial and adverse. A significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial.



- The degree to which the proposed action affects public health or safety.
- Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.
- The degree to which the effects on the quality of the human environment are likely to be highly controversial.
- The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.
- The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.
- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts. Significance exists if it is reasonable to anticipate a cumulatively significant impact on the environment. Significance cannot be avoided by terming an action temporary or by breaking it down into small component parts.
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss or destruction of significant scientific, cultural, or historical resources.
- The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the Endangered Species Act of 1973.
- Whether the action threatens a violation of Federal, State, or local law or requirements imposed for the protection of the environment.

### **3.1.1.2 National Historic Preservation Act**

This report was completed under the provisions of NHPA Section 106 (and its implementing regulation, 36 Code of Federal Regulations [C.F.R.] 800) in its applications for determining “effects,” or impacts, as described in Part 800.5(a)(1).

Section 106 of the NHPA requires that Federal agencies take into account effects on “historic properties” that may be caused by undertakings, and that the Advisory Council on Historic Preservation be afforded the opportunity to comment on those undertakings (16 United States Code [U.S.C.] 470a, 36 C.F.R. Part 800). Section 106 requires that historic properties be identified, that effects be analyzed, and if adverse effects would be expected, that appropriate mitigation be identified and implemented under a Memorandum of Agreement.

Section 106 defines a historic property as:

Any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the National



Register criteria (36 C.F.R. Part 800 Protection of Historic Properties, Section 800.16 Definitions(l)(1)).

Properties of traditional religious and cultural importance (i.e., Traditional Cultural Properties/Places) to Native Americans are considered under Section 101(d)(6)(A) of the NHPA. Traditional Cultural Properties/Places can be NRHP-eligible under any of the NRHP criteria listed below.

### **National Register of Historic Places**

The NRHP is the nation’s official list of districts, sites, buildings, structures, and objects worthy of preservation. At present, the NRHP includes approximately 80,000 listings, including icons of American architecture, engineering, culture, and history. Overseen by the National Park Service, under the Department of the Interior, the NRHP was authorized under the NHPA, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service. For a property to be listed in or determined eligible for NRHP listing, it must be demonstrated to have the quality of significance in American history, architecture, archaeology, engineering, and culture. This quality can be present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association. To be eligible, a property must meet at least one of the following criteria:

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

Integrity is defined in the National Park Service’s NRHP guidance as the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must retain integrity.

The NRHP guidance asserts that properties be at least 50 years old to be considered for eligibility. Properties completed less than 50 years before they are evaluated must be “exceptionally important” (Criteria Consideration G) to be considered eligible for listing, or under certain circumstances they must be part of a historic district whose period of significance extends forward to a date less than 50 years ago.

Effects on historic properties under Section 106 of the NHPA are defined in the assessment of adverse effects in 36 C.F.R. Part 800.5(a)(1):



An adverse effect is found 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 [NRHP] in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. 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.

Adverse effects on historic properties are defined and include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) 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 C.F.R. Part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which 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
- (viii) 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 (36 C.F.R. Part 800.5(a) (2))

To comply with Section 106, the criteria of adverse effect are applied to historic properties in the project area of potential effects (APE), pursuant to 36 C.F.R. Part 800.5 (a)(1). A finding of no adverse effect may be appropriate when the undertaking's effects do not meet the thresholds set forth in the criteria of adverse effect, or in certain cases when the undertaking is modified to avoid or lessen effects, or conditions are imposed to ensure review of rehabilitation plans for conformance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties* (codified in 36 C.F.R. Part 68). If adverse effects findings are made, mitigation would be proposed and resolution of adverse effects occurs through consultation pursuant to 36 C.F.R. Part 800.6(a) to avoid, minimize, or mitigate adverse effects on historic properties.



**3.1.1.3 U.S. Department of Transportation Act, Section 4(F)**

Section 4(f) (23 C.F.R. 774) of the U.S Department of Transportation Act of 1966, as amended (49 U.S.C. 1653(f)), defines impacts of DOT projects as the “use” of certain types of resources, including “historical sites.”

DOT agencies, including the Federal Transit Administration (FTA), cannot approve the use of land from publicly owned parks, recreational areas, wildlife and waterfowl refuges, or public and historical sites (defined as listed in or determined eligible for listing in the NRHP) unless the following conditions apply:

- There is no feasible and prudent alternative to the use of land.
- The action includes all possible planning to minimize harm to the property resulting from use (FHWA, 2009).

In the Federal Highway Administration (FHWA) guidance “What is Section 4(f)?” the regulations are described as applying to “any publicly or privately owned historic site listed or [determined] eligible for listing on the National Register [NRHP]” (FHWA, 2009). The guidance defers to the definitions of “historical sites” found in the NHPA and its NRHP criteria for historic properties as described in Section 3.1.1.2.

Impacts to 4(f) properties, defined as use of the property, must be either avoided, minimized, or mitigated, in that order. FTA follows FHWA procedures for resolving “*de minimis*” impacts through recorded administrative decisions, and mitigating impacts through 4(f) procedures (FHWA, 2009).

**3.1.1.4 Other Federal Regulations**

Other Federal laws include the Archaeological Data Preservation Act of 1974, the American Indian Religious Freedom Act of 1978, the Archaeological Resources Protection Act of 1979, and the Native American Graves Protection and Repatriation Act of 1989, among others. Section 106 and NEPA procedures, particularly through involvement of Native American and other public constituents in the identification, evaluation and mitigation processes, might address impact resolution through these other Federal laws.

**3.1.2 State**

**3.1.2.1 California Environmental Quality Act**

Concurrently with the Federal process, CEQA (Public Resources Code [P.R.C.], Section 5024) requires evaluation of proposed projects that may cause significant effects on historical resources. Under CEQA, “historical resources” must be identified, expected impacts must be analyzed, and mitigation must be identified and implemented as above, where necessary. For CEQA conformance, historical resources include the built environment as well as “unique paleontological resources” or “unique geologic features.”

CEQA guidelines define a “historical resource” as:



- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHC (P.R.C. Section 5024.1, Title 14 CCR, Section 4850 et seq.).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

CEQA equates a “substantial adverse change” in the historic significance of a resource with a significant effect on the environment (P.R.C. Section 21084.1). Thresholds of substantial adverse change are established in P.R.C. Section 5020.1 as demolition, destruction, relocation, or “alteration activities that would impair the significance of the historic resource.” If a project is expected to result in an effect on historic resources, CEQA guidelines require analysis of a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most the basic objectives of the project and avoid or substantially lessen any significant effects on the historical resource.

A proposed project that may affect historic resources is submitted to the State Historic Preservation Officer for review and comment prior to project approval by the lead CEQA agency, and before any project-related clearance, demolition, or construction activities commence.

If any CEQA impact conditions are met by the project’s effects on historic properties, mitigation measures are recommended for avoidance, to minimize impacts, or to provide balanced compensation for adverse effects. See Sections 5.0 and 7.0 for an evaluation of project effects and impacts on those properties, and Section 6.0 for recommended mitigation measures.

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

Under California P.R.C. Section 5024.1, the California Register of Historical Resources (CRHR) was established to serve as an authoritative guide to the state’s significant historic and archaeological resources. A resource is considered historically significant if it meets the criteria for listing in the CRHR (P.R.C. Section 5024.1, Title 14 CCR, Section 4852). For a property to be considered eligible for listing in the CRHR, it must be found to be significant under at least one of the following four criteria by the State Historical Resources Commission. A resource is significant if it:

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



- Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- Has yielded, or may be likely to yield, information important in prehistory or history.

In addition to possessing one of the above-listed characteristics, to be eligible for listing in the CRHR, resources must retain “substantial” integrity to their period of significance. The seven aspects or qualities of integrity are the same as those applied to NRHP-eligible properties: location, design, setting, materials, workmanship, feeling, and association.

The CRHR also includes properties that:

- Have been determined eligible for listing in, or are listed in the NRHP.
- Are registered State Historical Landmark No. 770 and all consecutively numbered landmarks above Number 770 (see Section 3.1.2.3).
- Are points of historical interest that have been reviewed and recommended to the State Historical Resources Commission for listing (see Section 3.1.2.4).
- Are city- and county-designated landmarks or districts. Historic districts are a concentration of historic buildings, structures, objects, or sites within precise boundaries that share a common historical, cultural or architectural background. Individual resources within an historic district may lack individual significance but be considered a contributor to the significance of the historic district.
- Are identified as significant in a historic resource survey meeting the following criteria:
  - 1) The survey has been or will be included in the State Historical Resources Inventory.
  - 2) The survey and the survey documentation were prepared in accordance with [Office of Historic Preservation] procedures and requirements.
  - 3) The resource is evaluated and determined by the office to have a significance rating of category “1 - 5” on California Department of Parks and Recreation series 523 form.
  - 4) If the survey is five or more years old at the time of its nomination for inclusion in the CRHR, the survey is updated to identify historical resources which have become eligible or ineligible due to changed circumstances or further documentation and those which have been demolished or altered in a manner that substantially diminishes the significance of the resource (P.R.C. Section 5024.1[g]).

### **3.1.2.3 California Historical Landmarks**

Designated California Historical Landmarks are numbered sequentially as they are listed by the State Historical Resources Commission. California Historical Landmarks numbered 770 and higher are automatically listed in the CRHR. According to P.R.C. Section 5031(a), to be eligible for California Historical Landmark designation, a property must be of “statewide historical importance” and must demonstrate its statewide significance by meeting one of the following three requirements:





- The property is the first, last, only, or most significant historical property of its type in the region. The regions are Southern California, Central California, and Northern California. If a property has lost its historic appearance (integrity), it may be listed as a site.
- The property is associated with an individual or group having a profound influence on the history of California. The primary emphasis should be the place or places of achievement of an individual. Birthplace, death place, or place of interment shall not be a consideration unless something of historical importance is connected with his or her birth or death. If a property has lost its historic appearance (integrity) it may be listed as a site.
- The property is a prototype of, or an outstanding example of, a period, style, architectural movement, or construction, or...it is one of the more notable works, or the best surviving work in a region of a pioneer architect, designer, or master builder.

#### **3.1.2.4 California Points of Historical Interest**

California Points of Historical Interest include “sites, buildings, features, or events that are of local (city or county) significance and have an anthropological, cultural, military, political, architectural, economic, scientific, or technical, religious, experimental, or other value.” Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. To be designated, a property must meet at least one of the following criteria:

- The first, last, only, or most significant of its type within the local geographic region (city or county).
- Associated with an individual or group having a profound influence on the history of the local area.
- A prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

### **3.2 Delineation of Area of Potential Effects**

A proposed project-specific APE (Appendix A) was established in accordance with 36 C.F.R. Part 800.16 (d), which defines an APE as:

the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

The proposed project APE was delineated to ensure identification of significant historic and architectural resources that may be directly or indirectly affected by the proposed project and are listed in or eligible for inclusion in the NRHP and/or CRHR. The APE was established using methodology consistent with those of previous Metro projects.



For historic and architectural resources, the proposed indirect APE generally includes all parcels adjacent to both sides of the proposed project alignment, including stations, subway or open cut construction areas, and areas proposed for acquisition. In addition, the indirect APE includes areas that may be subject to potential project-related effects, including visual or audible effects, and settlement effects that may result from construction or implementation the proposed project.

For archaeological resources, the proposed direct APE includes the proposed at-grade and underground right-of-way and/or areas of direct ground disturbance. The direct APE also includes areas with permanent site improvements and areas for staging and temporary construction activities. The proposed vertical APE extends from approximately 25 feet above to approximately 80 feet below the existing ground surface.

Because the proposed project is expected to be constructed by 2018, identification efforts are focused on resources dating to or before 1968 (2018–50 years=1968). Those resources will be evaluated for NRHP and CRHR eligibility as part of the project identification phase, and all previously identified historic properties and historical resources will be noted.

### **3.3 Native American Coordination**

SWCA contacted the California Native American Heritage Commission (NAHC) by letter on June 15, 2010, requesting a review of the Sacred Lands File and a list of appropriate Native American contacts for the project. The NAHC search of the Sacred Lands File indicated the presence of Native American cultural resources within 0.5 mile of the project area. The NAHC also provided a list of nine Native American contacts.

SWCA sent letters via U.S. mail (or via e-mail, if a physical mailing address was not available) to each Native American contact on July 7, 2010, requesting information regarding potential cultural resources that may be located within the project APE. These letters included location maps and a description of the proposed project and its related APE (Appendix B). Due to project delays, SWCA sent a second series of nearly identical letters to the contacts on January 7, 2011. SWCA followed up with each contact via telephone on January 24, 2011 (Table 3-1).

SWCA received two responses to these contact efforts. On January 19, 2011, Andy Salas, Chairperson of the Shoshonean Gabrielino Band of Mission Indians, stated via e-mail that the project is within a culturally sensitive area, and he recommended a Native American monitor be on-site for ground-disturbing activities. On January 26, 2011, Anthony Morales of the Gabrielino/Tongva San Gabriel Band of Mission Indians expressed concern about sites in the project area but did not mention specific sites or site locations. He requested to be updated on the project as it continues.

**Table 3-1. Native American Coordination**

<b>Native American Contact</b>	<b>Letter Sent</b>	<b>Date of Reply</b>	<b>Follow Up</b>	<b>Results</b>
Bernie Acuna Gabrielino-Tongva Tribe 1875 Century Park East, Ste. 1500 Los Angeles, CA 90067	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Voice mailbox full; also unable to reach by cell phone.	No further action necessary.
Cindi Alvitre Ti'At Society 6515 E. Seaside Walk, #C Long Beach, CA 90803	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Left message on machine.	No further action necessary.
Ron Andrade, Director Los Angeles Native American Indian Commission 3175 West 6th St., Room 403 Los Angeles, CA 90020	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Left message on machine.	No further action necessary.
Linda Candelaria, Chairwoman Gabrielino-Tongva Tribe 1875 Century Park East, Suite 1500 Los Angeles, CA 90067	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Left message on cell phone voicemail.	No further action necessary.
Robert Dorame Gabrielino Tongva Indians of California Tribal Council P.O. Box 490 Bellflower, CA 90707	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Spoke with Mr. Dorame.	01/24/2011: Mr. Dorame said he had not checked yet for sensitivity in the project area and would get back to SWCA. No further action necessary
Sam Dunlap Gabrielino Tongva Nation P.O. Box 86908 Los Angeles, CA 90086	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Spoke with Mr. Dunlap.	01/24/2011: Mr. Dunlap said he had not read the letter yet and would call or e-mail if he did have questions or concerns. No further action necessary
Anthony Morales Gabrielino/Tongva San Gabriel Band of Mission Indians P.O. Box 693 San Gabriel, CA 91778	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	n/a	01/24/2011: Left message on machine.  01/26/2011: Spoke with Mr. Morales.	01/26/2011: Mr. Morales expressed concern about sites present in the project area but did not specify which sites and where. He would like to be updated on the project as it continues. No further



				action necessary.
John Tommy Rosas Tongva Ancestral Territorial Tribal Nation	07/02/2010 via e-mail  01/07/2011 via e-mail	n/a	01/24/2011: Left message on machine.	No further action necessary.
Andy Salas, Chairperson Shoshoneon Gabrielino Band of Mission Indians P.O. Box 393 Covina, CA 91723	07/02/2010 via U.S. mail  01/07/2011 via U.S. mail	01/19/2011: via e-mail	01/24/2011: Did not call due to correspondence via e-mail with Mr. Salas.	01/19/2011: Mr. Salas e- mailed, recommending a Native American monitor be present for all ground-disturbing activities. No further action necessary.



## **4.0 AFFECTED ENVIRONMENT**

### **4.1 Cultural Setting**

#### **4.1.1 Prehistoric Overview**

The prehistoric chronology for the southern California coastal region has been divided into four periods: Early Man (ca. 11,000–6000 B.C.), Milling Stone (6000–3000 B.C.), Intermediate (3000 B.C.–A.D. 500), and Late Prehistoric (A.D. 500–Historic Contact) (Wallace, 1955; Wallace, 1978). The earliest accepted date for the beginning of human occupation in southern California is associated with approximately 13,000 year-old skeletal remains on Santa Rosa Island (Johnson et al., 2002). The antiquity of human occupation in the Los Angeles Basin has been the subject of long-standing and still unresolved debate, with several sets of skeletal remains potentially dating to the endterminal Pleistocene epoch (Erlandson et al. 2007:54). The economy during the Early Man period was a mixture of hunting and gathering, with an emphasis on aquatic resources in many coastal areas (e.g., Jones et al., 2002).

Subsistence patterns shifted around 6000 B.C. with the onset of a warm and dry climatic period that lasted about 3,000 years and coincided with the Milling Stone period. A greater emphasis was placed on hunting terrestrial mammals, marine mammals, and birds; collecting shellfish; fishing near the shore with barbs or gorges; processing yucca and agave; and extensively using seed and plant products (Kowta, 1969; Reinman, 1964). The Intermediate period, beginning about 3000 B.C., saw a wider use of plant foods, including acorns. An increasing variety and abundance of fish, land mammal, and sea mammal remains are found in sites from this period.

The Late Prehistoric period, beginning about 500 A.D., saw an increase in the use of plant food resources and in terrestrial and marine mammal hunting, as well as an associated increase in the diversity and complexity of material culture. This period witnessed an increase in population and the advent of larger, more permanent villages (Wallace, 1955).

#### **4.1.2 Ethnographic Overview**

The project area is located in Gabrielino/Tongva territory (Bean and Smith, 1978; Kroeber, 1925). The term Gabrielino refers to all people who were administered by the Spanish from Mission San Gabriel, those who were living in the Los Angeles Basin as well as those who were from surrounding areas (Bean and Smith, 1978; Kroeber, 1925). Many present-day Gabrielino identify themselves as descendants of the indigenous people of the Los Angeles Basin and refer to themselves as the Tongva (King, 1994). This term is used in this section to refer to the precontact inhabitants of the Los Angeles Basin and their descendants. The Tongva language, as well as that of the neighboring Juaneño/Luiseño, Tataviam/Alliklik, and Serrano, belongs to Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin area (Mithun 2004:539, 543–544).



Tongva lands encompassed the greater Los Angeles Basin and three of the Channel Islands: San Clemente, San Nicolas, and Santa Catalina. Their mainland territory reached Topanga Creek and the San Gabriel Mountains in the north, Lytle Creek in the east, and Aliso Creek in the south (Bean and Smith, 1978; Kroeber, 1925). Tongva society was organized along patrilineal non-localized clans, a characteristic Takic pattern. The Tongva established large, permanent villages in the fertile lowlands along rivers and streams and along the coast, as well as many smaller settlements throughout their territory.

The Tongva subsistence economy was based on gathering and hunting. The surrounding environment was rich and varied, and the group exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal ecological niches. Acorns were a staple, supplemented by the roots, leaves, seeds, and fruits of a wide variety of flora. Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith, 1978; Kroeber, 1925; McCawley, 1996).

At the time of Spanish contact, the basis of Tongva religious life was the *Chinigchinich* cult, centered on the last of a series of heroic mythological figures. Chinigchinich gave instruction on laws and institutions and also taught the people how to dance, the primary religious act for this society. He later withdrew into heaven, where he rewarded the faithful and punished those who disobeyed his laws (Kroeber, 1925). The Chinigchinich religion seems to have been relatively new when the Spanish arrived. It was spreading south into the Southern Takic groups even as Christian missions were being built and may represent a mixture of native and Christian belief and practices (McCawley, 1996).

### **4.1.3 Historic Overview**

The post-contact history of California is divided into three periods: the Spanish period (1781–1822), the Mexican period (1822–1848), and the American period (1848–present). The first European account of the area that would become the County of Los Angeles was by Portuguese navigator João Rodrigues Cabrilho (Juan Rodriguez Cabrillo, in Spanish), who led a Spanish expedition along the California coast in 1542–1543. Cabrillo noted the numerous campfires of the Tongva and thus named the area the “Bay of Smokes.” Spain’s presence in the region was intermittent for approximately the next 200 years (Chartkoff and Chartkoff, 1984).

The beginning of Spanish settlement in California occurred with the establishment of Mission San Diego, the first of 21 missions that were established in Alta California between 1769 and 1823. Mission San Gabriel, founded in 1771, represented the first sustained European occupation of the County of Los Angeles area and eventually became the most prosperous of Alta California’s missions (Johnson et al., 1972). On September 4, 1781, Governor Felipe de Neve granted the region’s first settlement, Nuestra Senora La Reina de Los Angeles, or the Pueblo de Los Angeles, with a vast territory covering approximately 28 square miles.

The Mexican period was an era of extensive interior land grant development and exploration by American fur trappers west of the Sierra Nevada. After Mexico won its



independence from Spain in 1822, the territories of California were transferred to Mexican jurisdiction (Nevin, 1978). Agriculture would remain the area's primary industry during the Mexican period well into the mid-1880s. The area of the planned Crenshaw/LAX Transit Corridor traverses portions of four ranchos that were settled during the Mexican period: Rancho las Cienegas (including portions of Crenshaw Boulevard), Rancho Cienega O'Paso de la Tijera (Leimert Park, Baldwin Hills), and Rancho Aguaje de Centinela/Rancho Sauzal Redondo (Inglewood, Westchester, Los Angeles International Airport).

With the signing of the Treaty of Guadalupe Hidalgo in 1848 that ended the Mexican-American War, California became a territory of the United States. Spurred by the discovery of gold in 1848 at Sutter's Mill and the completion of the transcontinental railroad in 1869, thousands of settlers began immigrating to California. The County of Los Angeles (the county) was established on February 18, 1850, as one of 27 counties established in the months prior to California becoming a state. Many ranchos in the county were sold or otherwise acquired by Americans, and most were subdivided into agricultural parcels or towns. Nonetheless, ranching retained its importance, and by the late 1860s, Los Angeles was one of the top dairy production centers in the country (Rolle, 2003). By 1876, the county had a population of 30,000 (Dumke, 1944:7).

By the 1880s, railroads had established networks throughout the region, resulting in fast and affordable shipment of goods, as well as a means to transport new residents to the booming area. New residents included many health-seekers drawn to the area by the fabled climate. In the early to mid-1900s, population growth accelerated due to industry associated with both world wars, as well as emigration from the Midwest dust bowl states during the Great Depression. The county became one of the most densely occupied areas in the United States. The county's mild climate and successful economy continued to draw new residents in the late 1900s, with much of the county transformed from ranches and farms into residential subdivisions surrounding commercial and industrial centers. Hollywood's development into the entertainment capital of the world and southern California's booming aerospace industry, were key factors in the growth of the Los Angeles metropolitan area. The project's area of potential effects (APE) was subdivided and developed between the 1880s and 1910s and became fully urban by the 1940s.

## **4.2 California Historical Information System Records Search**

A cultural resources records search for the Crenshaw/LAX Transit Corridor Project was performed by SWCA archaeologist Susan Underbrink at the California Historical Information System, South Central Coastal Information Center (SCCIC) on January 2, 2008 (Appendix C). The records search included a review of available documents and site records within a 0.25-mile radius of the project direct APE. In addition to official maps and records, the following sources of information were consulted as part of the records search:

- National Register of Historic Places – Listed Properties (2006, updated to present)
- California Register of Historical Resources (2006, and review of minutes from State Historic Resources Commission meetings thereafter)



- California Inventory of Historical Resources (1976)
- California State Historical Landmarks (1996 and updates)
- California Points of Historical Interest (1992 and updates)
- Office of Historic Preservation Historic Property Directory and Determinations of Eligibility (2008)

**4.2.1 Prior Studies within a 0.25-mile Radius of the Direct Area of Potential Effects**

The SCCIC records search indicated that 50 cultural resource studies have been conducted within a 0.25-mile radius of the direct APE (Table 4-1). Fourteen of these studies are located within portions of the direct APE, and five are adjacent to the direct APE.

**Table 4-1. Prior Cultural Resource Studies within a 0.25-mile Radius of the Direct APE**

SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 78	Evaluation of the Archaeological Resources and Potential Impact of the Proposed Construction of Route 105 Freeway from El Segundo to Norwalk	Rosen, M.	1975	Within
LA 168	Draft Environmental Impact Report in Accordance with Section 21151 of the Public Resources Code Storm Drain Bond Issue Project No. 9811, Inglewood Unit 1, Lines C and D	Miller, F.	1976	Outside
LA 597	Field Report on Site Near Stocker Avenue and Crenshaw Blvd., Los Angeles, California	Arris, R.	1949	Adjacent
LA 2838	Results of a Phase I Archaeological Study for the Proposed East Ventral Interceptor Sewer Project, East-West Alignment, Los Angeles County, California	Wlodarski, R	1993	Within
LA 3438	Report of Archeological Survey for L.A. Cellular Site #775, 4401 Wilshire Boulevard, Los Angeles, Los Angeles County	Demcak, C.	1996	Outside
LA 3501	Archaeological Record Search and Impact Evaluation for the Los Angeles Wastewater Program Management (NOS-NCOS) Project, Los Angeles, California	Dillon, B.	1990	Outside
LA 3577	Report of Archaeological Survey for L.A. Cellular Site #675.3, 4401 Crenshaw Boulevard, Los Angeles, Los Angeles County	Demcak, C.	1996	Within
LA 3583	The Los Angeles Basin and Vicinity: A Gazetteer and Compilation of Archaeological Site Information	Buckman, B.	1974	Adjacent
LA 3587	Prehistoric Native American Cultural Sites in the Santa Monica Mountains	King, C.	1994	Adjacent





SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 3673	Historic Property Report North Outfall Relief Sewer (NORS)	Anonymous	1987	Adjacent
LA 3854	Phase I Archaeological Survey of a Corner Lost at 4305 Degnan Boulevard, Los Angeles, California 90008	Frierman, J.	1997	Outside
LA 3912	Historic Property Survey Airport Boulevard – Manchester Avenue to N/O 98th Street	Unknown	1977	Outside
LA 3968	Archaeological Assessment for Pacific Bell Mobile Services Telecommunications Facility LA022-03, 2349 Crenshaw Boulevard, City and County of Los Angeles, California	McLean, D.	1998	Outside
LA 4336	Archaeological Investigations at 2441 Covina Hills Road – LA Cellular Facility No. 661.3 in the City of San Dimas, Los Angeles County California	Singer, C. and D. Morrill	1997	Outside
LA 4579	Cultural Resources Assessment for Pacific Bell Mobile Services Facility LA 579-01, County of Los Angeles, California	Duke, C.	1999	Within
LA 4667	Historic Resource Evaluation Report Exposition Boulevard Right-of-Way Regional Bikeway Project, Los Angeles County, California	Foster, J.	1999	Within
LA 4836	Phase I Archaeological Survey Along Onshore Portions of the Global West Fiber Optic Cable Project	Unknown	2000	Within
LA 4910	Paleontological and Archaeological Resources Reconnaissance of the Los Angeles International Airport (LAX) Property, Los Angeles County, California	Raschke, R.	1995	Outside
LA 5103	Negative Archaeological Survey Report: 491601	Inverson, G.	1999	Outside
LA 5106	Cultural Assessment for Pacific Bell Wireless Facility LA 922-01, County of Los Angeles, CA	Lapin, P.	2000	Outside
LA 5498	Negative Archaeological Survey Report: to widen the Northbound Route 405 off-ramp at Manchester Blvd. From a single lane to two lanes with a full shoulder retaining wall	Sylvia, B.	2001	Within
LA 5709	Review of Cultural Resource Assessment/Evaluation for Nextel Communications Site CA-7534-A, Los Angeles, Los Angeles County, California	McKenna, J.	2002	Outside
LA 5710	Cultural Resource Assessment AT&T Wireless Facility No. D432, Los Angeles County, California	Duke, C.	2002	Outside
LA 6230	Cultural Resource Assessment AT&T Wireless Services Facility No. D381C, Los Angeles County, California	Duke, C.	2002	Outside



SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 6231	Cultural Resource Assessment AT&T Wireless Services Facility No. 04115, Los Angeles County, California	Duke, C.	2002	Outside
LA 6233	Historic Property Survey Report Interstate 405/Arbor Vitae Street Interchange, Inglewood	Lortie, F.	1999	Outside
LA 6239	El Segundo Power Redevelopment Project, Cultural Resources (Archaeological Resources), Appendix J of Application for Certification	Wesson, A., B. Bass, and B. Hatoff	2000	Outside
LA 6240	El Segundo Power Redevelopment Project Historic Resources (Built Environment), Appendix K of Application for Certification	Bunse, M.	2000	Outside
LA 6441	Los Angeles New Primary Center No. 1 – Archaeological Records Check Summary	McKenna, J.	2002	Outside
LA 6445	Proposed Verizon Wireless Facility: Mid-Wilshire (99900155) in the City and County of Los Angeles, California	Mason, R.	2001	Outside
LA 7064	Widney/CA-8065D Telecommunications Facility, 4050 W. Washington Blvd., Los Angeles, CA Los Angeles County	Jenson, C.	2004	Outside
LA 7065	Cultural Resource Assessment for AT&T Services Facility Number R074.2, County of Los Angeles, California	Duke, C.	2000	Adjacent
LA 7178	Report on Cultural Resources Mitigation and Monitoring Activities Flour/Level (3), Los Angeles Local Loops	Unknown	2001	Within
LA 7387	Historic Cultural Resources Study: The Los Angeles Unified School District Central Region Elementary School No. 14, Located in the Echo Park Area of the City of Los Angeles, Los Angeles County, California	McKenna, J.	2005	Outside
LA 7402	Records Search and Site Visit for Sprint Telecommunications Facility Candidate LA60XC408D (Florence Locust RL), 405 East Florence Avenue, Inglewood, Los Angeles County, California	Bonner, W.	2004	Within
LA 7411	Madden/CA-6370A, 5441 Crenshaw Blvd, Los Angeles, CA. County of Los Angeles	Thal, E.	2004	Within
LA 7417	A Phase I Archaeological Study for 7301-7315 Crenshaw Boulevard [Crenshaw Senior Apartment Complex], City of Los Angeles, Los Angeles County, California	Wlodarski, R.	2004	Outside
LA 7428	Caltrans Historic Bridges Inventory Update: Timber Truss, Concrete Truss, and Suspension Briges	McMorris, C.	2004	Outside



SCCIC Report No.	Study	Author	Year	Proximity to Direct APE
LA 7713	Cultural Resources Assessment for AT&T Wireless Facility 950-004-132, Located at 8530 Airport Boulevard, City of Los Angeles, Los Angeles County, California	Kyle, C.	2004	Outside
LA 7715	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate EL-014-03 (Neutrogena Property), 5705 West 98th Street, Los Angeles, Los Angeles County, California	Bonner, W.	2005	Outside
LA 7727	Cultural Resources Records Search Results and Site Visit for Cingular Wireless Candidate EL-0073-01 (West Blvd), 1101 West Boulevard, Los Angeles, Los Angeles County, California	Bonner, W.	2005	Outside
LA 7753	Cultural Resources Records Search and Site Visit for T-Mobile Candidate LA03295B (Jamison Properties, Inc.), 4201 Wilshire Boulevard, Los Angeles, Los Angeles County, California	Bonner, W.	2006	Within
LA 7869	Cultural Resources Records Search and Site Visit for Sprint Nextel Candidate CA7731D (La Colima), 404 East Florence Avenue, Inglewood, Los Angeles County, California	Bonner, W.	2006	Within
LA 7909	Records Search and Field Reconnaissance for the Proposed Royal Street Communications LLC Wireless Telecommunications Site LA0259A (Bob's Vacuum), Located at 4500 West Pico Boulevard, Los Angeles, California 90019	Wlodarski, R.	2006	Outside
LA 8001	Archaeological Survey Report Rosa Parks Villas, 2507 S. Bronson Avenue and 2440 Crenshaw Boulevard, Los Angeles, California	Wood, C.	2006	Outside
LA 8020	Technical Report: Cultural Resources Los Angeles Rapid Transit Project "Metro Rail" Core Study	Anonymous	1987	Within
LA 8255	Cultural Resources Final Report of Monitoring and Findings for the Qwest Network Construction Project State of California: Volumes I and II	Arrington, C. and N. Sikes	2006	Within
LA 8507	Archaeological Survey Report for the Crenshaw Gateway Development, 4337-4347 West Adams Boulevard, Los Angeles, California	Wood, C.	2007	Outside
LA 8771	Cultural Resources Records Search and Site Visit Results for Royal Street Communications. LLC Candidate LA0252C (5360 Crenshaw), 5360 Crenshaw Boulevard, Los Angeles, Los Angeles County, California	Bonner, W.	2006	Outside
LA 8779	701 Hyde Park/LA-2639A, Cellular Antennas on Existing Rooftop, 701 E. Hyde Park Blvd., Inglewood, Los Angeles County, CA 90302	Billat, L.	2007	Outside

Source: South Central Coastal Information Center.



**4.2.2 Previously Recorded Archaeological Resources within a 0.25-mile Radius of the Direct Area of Potential Effect**

The SCCIC records search indicated there are three previously recorded archaeological resources within a 0.25-mile radius of the direct APE (Table 4-2). Two are prehistoric resources, and one is of an unknown type because the site record is missing from the SCCIC. Of the three archaeological resources, one (CA-LAN-80) is located adjacent to the direct APE. The remaining two (CA-LAN-171 and CA-LAN-1336) are located within 0.25 mile of the direct APE.

**Table 4-2. Previously Recorded Archaeological Resources within a 0.25-mile Radius of the Direct APE**

Primary Number	Trinomial	Description	Recorded by and Year	NRHP Eligibility	Proximity to Direct APE
P-19-000080	CA-LAN-80	Prehistoric: Artifact scatter and human remains	Ariss, R. 1949	Not evaluated	Adjacent
P-19-000171	CA-LAN-171	Prehistoric: Human Remains	Heizer, R. 1950	Not evaluated	Outside
P-19-001336	CA-LAN-1336	Unknown: Site record missing from SCCIC	Unknown	Unknown	Outside

Source: South Central Coastal Information Center.

CA-LAN-80 is a prehistoric burial site located immediately adjacent to the direct APE. It included two separate burial features that were discovered 3 feet and 11 feet below the original ground surface during. They were exposed in the excavation of the Broadway Store (now Wal-Mart) basement’s southeast corner in 1946. R. Ariss excavated the site in 1946, accessioned the collected materials at the Los Angeles County Museum (now the Natural History Museum of Los Angeles County), and formally recorded the site in 1949. The site consists of skeletal remains from at least two individuals, abalone shell, worked marine shell, an obsidian projectile point tip, a chert flake, and a schist groundstone artifact. Trace amounts of red ochre and charcoal were also present. The features were encountered in a distinct stratum beneath a layer of alluvial sediment. Based on the stratigraphy and his knowledge of local geography, Ariss (1949) suggested that the materials represented secondary burials deposited in a black clay and subsequently covered by flood sediments. The site has not been formally evaluated for National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) eligibility.

CA-LAN-171 is a prehistoric burial site located approximately 0.25 mile west of the direct APE (although Brooks et al. [1990:62] place the site 0.3 mile west of Crenshaw Blvd.). It is referred to in the literature as the Angeles Mesa or Haverty site, after the neighborhood and construction firm associated with its discovery, respectively. The site was discovered during construction in 1924, reported by Chester H. Stock the same year, and formally recorded by Robert Heizer in 1950. It consists of at least eight sets of human remains that were found between 19 and 23 feet below surface. The remains were associated with a quartzite boulder and a small awl-like object and were found within a series of alluvial



sediments (Stock, 1924). The dating of this important site has been the subject of some controversy, with reported ages ranging from approximately 50,000 to 2,700 years before present. Along with the nearby “Los Angeles Man” site and the skeletal remains from La Brea, the possibility that these remains date to the late Pleistocene epoch (i.e., more than 12,000 years ago) has long intrigued researchers. Although extensive dating by radiocarbon, amino acid racemization, and geomorphological means has yet to resolve the site’s age, it is probably safe to conclude that the skeletons are at least middle Holocene in age, and perhaps older (Brooks et al., 1990; Erlandson et al. 2007:54). The site has not been formally evaluated for NRHP or CRHR eligibility.

CA-LAN-1336 is an archaeological site located approximately 500 feet west of the direct APE, just southwest of CA-LAN-80. The site type, age, condition, and NRHP/CRHR eligibility status are unknown because its site forms are missing from the SCCIC.

#### **4.2.3 California Historical Landmark**

California Historical Landmark 363, known as Centinela Springs, is located less than 0.25 mile north of the direct APE. According to the landmark record, Centinela Springs once flowed from their source in a deep water basin that has existed since the Pleistocene epoch. Prehistoric animals, Native Americans, and early Historic-period Inglewood settlers were attracted to the springs by the pure artesian water. The springs and neighboring valley were named after the “sentinels” guarding cattle in the area. The springs are located within Centinela Park. No archaeological materials have been formally recorded in association with this landmark.

#### **4.3 Sacred Lands File Search**

SWCA contacted the California Native American Heritage Commission (NAHC) by letter dated June 15, 2010, requesting a review of the Sacred Lands File. The NAHC responded on June 28, 2010, and stated that the Sacred Lands File indicates the presence of Native American cultural resources within 0.5 mile of the project area.

#### **4.4 Archaeological Survey**

##### **4.4.1 Survey Methods**

SWCA archaeologist Cheryle Hunt conducted an archaeological survey of the approximately 8.5-mile-long direct APE on February 7, 2011. The survey included both intensive- and reconnaissance-level efforts. Ms. Hunt conducted a reconnaissance-level survey in highly developed portions of the direct APE, where buildings and pavement obscure the ground surface. In these portions of the APE, she examined all areas of exposed soil (e.g., in planters or other landscaped areas) for the presence of archaeological materials. Ms. Hunt examined the ground surface for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), soil discoloration that might indicate the presence of a cultural midden, soil depressions, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations), and historic artifacts (e.g., metal, glass, ceramics). She conducted an intensive-level survey in areas of the direct APE that were unobstructed by standing buildings or structures, such as undeveloped lots or parklands. She surveyed



these areas using pedestrian transects spaced no more than 7 feet apart, closely examining the ground surface for the presence of archaeological materials. Ms. Hunt navigated using project maps and aerial photographs. She documented her findings using field notes and digital photographs. All field notes, digital photographs, and records related to the current study are on file at SWCA's Pasadena office.

#### **4.4.2 Survey Results**

The SWCA archaeologist conducted intensive pedestrian survey within two areas of the direct APE (Figures 4-1 and 4-2). These areas consisted of undeveloped parcels and parklands. Ground visibility varied between 10 and 30 percent, as these areas contained ornamental landscaping, gravel, and modern refuse. They include the following locations:

- Portions of Centinela Park located within the direct APE (Assessor's Parcel Number [APN] 4013027901 and 4015015902).
- Parcel located on Florence Avenue south of La Brea Avenue (APN 4016030014).

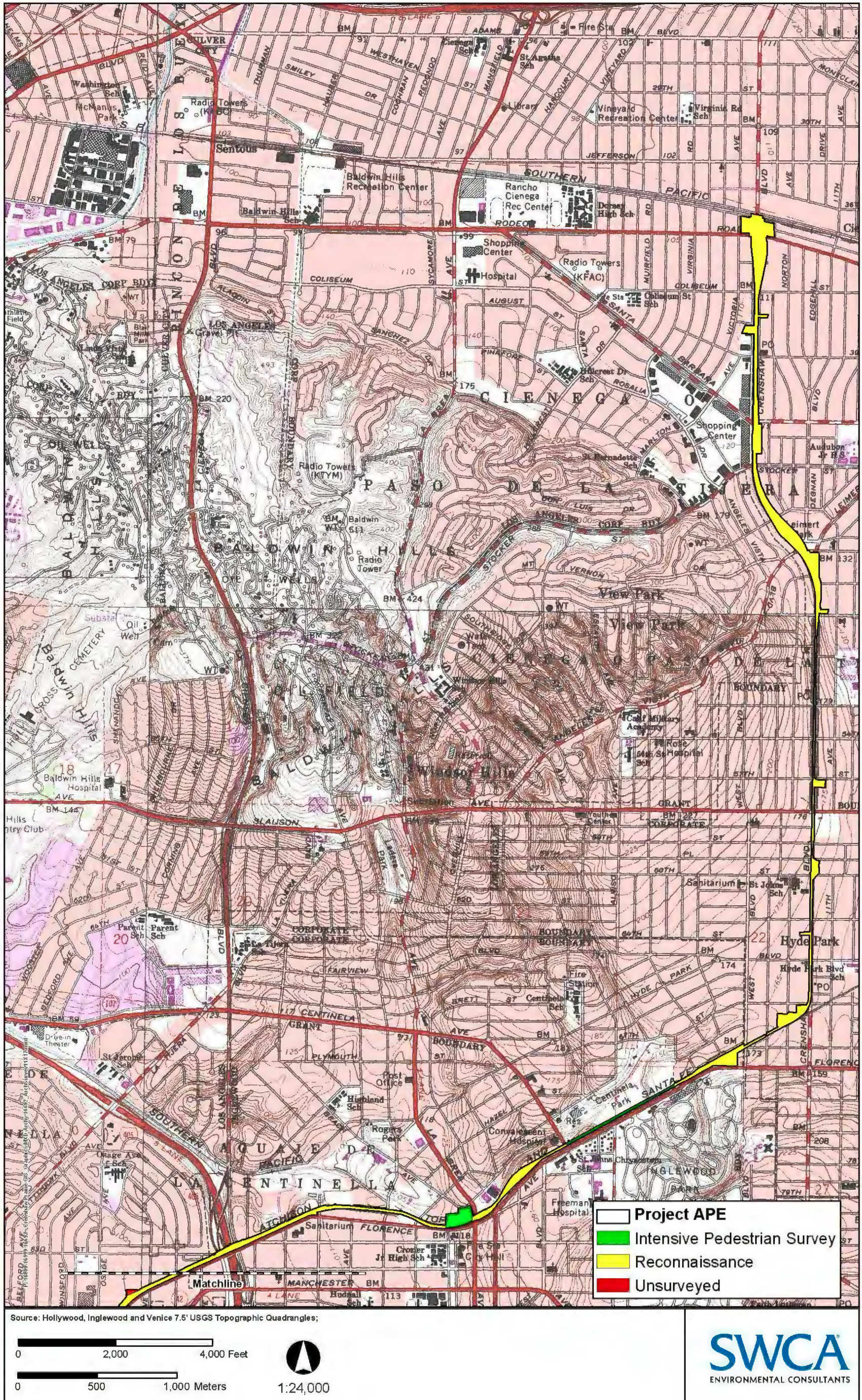
In addition, three areas of the direct APE could not be intensively surveyed because they were inaccessible due to the presence of fencing (see Figures 4-1 and 4-2). They include the following locations:

- Parcel on Florence Avenue, south of Hindry Avenue (APN 4127024903).
- Parcel on Aviation Boulevard south of 111th Street (APN 4129037913)
- Parcel between Aviation Boulevard and Hornet Way (APN 4138001908).

The remainder of the approximately 8.5-mile-long direct APE contained extremely poor (less than 5 percent) ground visibility due to the presence of buildings and pavement and was subject to reconnaissance-level survey (see Figures 4-1 and 4-2).

The survey did not encounter any newly identified archaeological resources within the direct APE. The SWCA archaeologist attempted to re-locate a previously recorded site (CA-LAN-80) located immediately adjacent to the direct APE. Re-location of this site was attempted due to the presence of previously recorded, deeply buried human remains, indicating the potential for similar discoveries during ground-disturbing activities within the direct APE. The site remains covered by the building and parking lot, the construction of which led to the site's discovery in 1946. The building currently houses a Wal-Mart. No evidence of the site is currently visible.

Figure 4-1. Areas of Survey Intensity within Direct APE (Northern Portion)



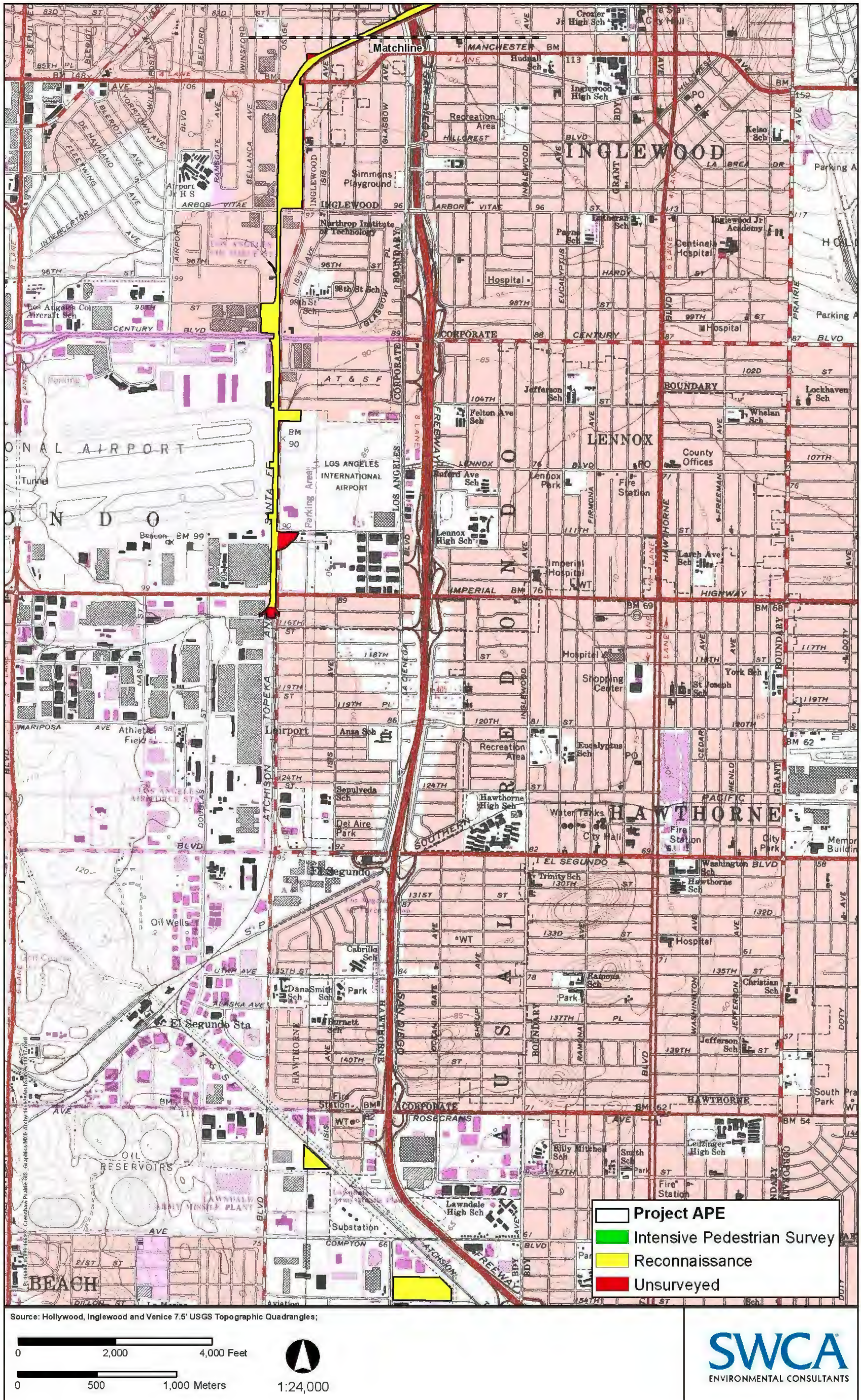
Source: Hollywood, Inglewood and Venice 7.5' USGS Topographic Quadrangles;

0 2,000 4,000 Feet  
0 500 1,000 Meters

1:24,000

**SWCA**  
ENVIRONMENTAL CONSULTANTS

Figure 4-2. Areas of Survey Intensity within Direct APE (Southern Portion)







## **5.0 IMPACTS**

The direct area of potential effects (APE) is sensitive for historical resources, including both prehistoric and historic archaeological sites. Although no previously recorded cultural resources are located within the direct APE, there are two previously recorded prehistoric archaeological sites containing human remains within close proximity to the APE. One (CA-LAN-80) is immediately adjacent the direct APE, and the other (CA-LAN-171) is located approximately 0.25 mile from the direct APE. Both of these sites include human remains that were apparently buried by natural flood deposits, and both were discovered during construction-related excavation. At least one additional site containing deeply buried human remains, the “Los Angeles Man” site (Brooks et al. 1990:62; Moratto, 1984:52-53) is also known from the northern base of the Baldwin Hills (refer to Figure 4-1 to see the relationship of this landform to the APE). This area, including the segment of Crenshaw Blvd. between Rodeo Rd. and Slauson Ave., should be considered extremely sensitive for the discovery of deeply buried archaeological deposits containing human remains.

CA-LAN-80 is located immediately adjacent to the direct APE, and the full extent of the site was not determined at the time of its discovery. Therefore it is possible, perhaps even likely, that additional archaeological materials related to this site exist within the APE. These may be impacted by ground disturbance related to the construction of the proposed project.

In addition, historic data indicate that the direct APE was initially developed in the mid-1800s and that most parcels within the direct APE were occupied by commercial or residential buildings by the 1940s. This suggests there is a high potential to encounter previously unidentified historic archaeological sites, including building foundations, trash deposits, and the like, within the direct APE.

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

#### **5.1.1 Construction Impacts**

The No-Build Alternative, in which the project site would remain in its existing condition, would not result in construction impacts to archaeological resources because no ground disturbance would occur.

#### **5.1.2 Operational Impacts**

The No-Build Alternative would not result in operational impacts to archaeological resources.

#### **5.1.3 Cumulative and Indirect Impacts**

The No-Build Alternative would not result in impacts to archaeological resources. Therefore, the No-Build Alternative would not contribute to a cumulative impact on these resources.



## **5.2 Locally Preferred Alternative**

### **5.2.1 Construction Impacts**

The Locally Preferred Alternative (LPA) includes the construction of at-grade street, at-grade railroad, aerial, and below-grade light rail segments. All of these actions are likely to include ground-disturbing construction (grading, excavation, boring, etc.) that has the potential to alter, remove, or destroy previously unidentified archaeological resources and previously undiscovered portions of site CA-LAN-80 within the direct APE. Such damage to archaeological resources would represent a significant adverse, yet mitigable impact. Implementation of mitigation measure AR-1 (see Section 6.1) would reduce this impact to a less-than-significant level.

### **5.2.2 Operational Impacts**

The LPA would not result in operational impacts to archaeological resources.

### **5.2.3 Cumulative and Indirect Impacts**

The construction of the LPA, as stated above, has the potential to directly and adversely affect previously unidentified archaeological resources and previously undiscovered portions of site CA-LAN-80 within the APE. Because similar projects in the region may produce similar adverse effects, this would contribute to a cumulative impact to archaeological resources. However, implementation of AR-1 would reduce this impact to a less-than-significant level. Therefore, this alternative would not contribute to a cumulative impact on these resources.



## **6.0 MITIGATION MEASURES**

### **6.1 Construction Impacts Mitigation Measures**

#### **6.1.1 AR-1: Treatment of Undiscovered Archaeological Resources**

A detailed cultural resources monitoring and mitigation plan (CRMMP) would be prepared prior to implementation of this project, similar in scope to the CRMMP that was prepared for Metro’s Eastside Gold Line Transit Corridor (Glenn and Gust, 2004). Implementation of a CRMMP during ground disturbance in highly sensitive archaeological areas would ensure that cultural resources are identified and adequately protected. If cultural resources are discovered or if previously identified resources are affected in an unanticipated manner, the CRMMP would also ensure that such resources receive mitigation to reduce the impact to less-than-significant levels. This plan would include, but not be limited to, the following elements, which are described briefly below:

- Worker training
- Archaeological monitoring
- Scientific evaluation and mitigation of archaeological discoveries
- Native American participation, as needed
- Appropriate treatment of human remains, if applicable
- Reporting of monitoring and mitigation results

#### **6.1.2 Worker Training**

Prior to initiation of ground-disturbing activities, a qualified archaeologist would conduct a short awareness training session for all construction workers and supervisory personnel. The session would explain the importance of and legal basis for the protection of significant archaeological resources. Each worker would also learn the proper procedures to follow in the event that cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection and the immediate contact of the supervisor and the archaeological monitor. It is recommended that this worker education session include visual representations of artifacts (prehistoric and historic) that might be found in the project vicinity and that it take place on-site immediately prior to the start of ground disturbance. Supervisory personnel may benefit from longer training sessions, while a brief (approximately 30- to 45-minute) training would suffice for non-supervisory workers. The brief training session may be conducted on-site using video, PowerPoint presentation, or similar media.

#### **6.1.3 Archaeological Monitoring, Evaluation, and Mitigation**

Due to poor surface visibility and archaeological sensitivity of the direct area of potential effects (APE), an archaeological monitor would be present during ground-disturbing activities within archaeologically sensitive areas to reduce the potential level of impact to buried archaeological resources to less-than-significant levels. This work would be



completed under the direction of an archaeologist (principal investigator) who meets the Secretary of the Interior’s Professional Qualifications Standards for archaeology. An adequate number of monitors would be present to ensure that all earth-moving activities are observed; these monitors would be on-site during all grading activities for areas to be monitored.

During the original excavation of previously undisturbed soils, the archaeological monitor(s) would be on-site at a frequency determined by the principal investigator. Inspection frequency may vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. Full-time monitoring is warranted within one block of significant or unevaluated archaeological resources that are known or suspected to be present within the direct APE. Full-time monitoring is also warranted within the APE between Rodeo Road and Slauson Ave. due to the high potential for encountering previously undocumented buried human remains.

In the event that potentially significant archaeological resources are exposed during ground-disturbing activities, the project manager would be notified immediately and the archaeological monitor(s) would have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of the resources. Construction activities may continue in other areas.

The evaluation of such resources is typically accomplished through a test-level excavation designed to determine the horizontal and vertical extent of the resource and to characterize its contents. If the discovery proves to be potentially eligible for listing on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR) (as determined by the principal investigator) and project plans cannot be altered to avoid affecting the site, then an adverse effect would result. This adverse effect may be resolved through the implementation of a Memorandum of Agreement between Metro and the State Historic Preservation Officer.

Before construction activities are allowed to resume in an affected area, artifacts would be recovered and features recorded using professional archaeological methods. The principal investigator would determine the amount of material to be recovered for an adequate artifact sample for analysis. All cultural material collected during the construction monitoring program would be processed using professional archaeological methods. An appropriate sample of recovered materials, selected by the principal investigator, would be curated at a curation facility that meets Federal standards per 36 Code of Federal Regulations (C.F.R.) Part 79 and made available to other archaeologists and researchers for future study.

#### **6.1.4 Native American Participation**

If Native American cultural resources (i.e., prehistoric or ethnohistoric-period artifacts, food remains, or features associated with Native Americans) are exposed during project-related ground disturbance, Metro would contact the Shoshonean Gabrielino Band of Mission Indians and the Gabrielino/Tongva San Gabriel Band of Mission Indians. Both groups have expressed interest in the project. One or both of these groups would be asked to provide the services of a trained Native American consultant to monitor ground-



disturbing work in the area containing the Native American cultural resources. This monitoring would occur on an as-needed basis and would be intended to ensure that Native American concerns are taken into account during the construction process.

### **6.1.5 Appropriate Treatment of Human Remains**

The discovery of human remains is always a possibility during ground disturbance. A previously recorded prehistoric archaeological site (CA-LAN-80) that contains human remains is located immediately adjacent to the direct APE. A second previously recorded prehistoric site (CA-LAN-171) containing human remains is located approximately 0.25 mile west of the direct APE.

The State of California Health and Safety Code Section 7050.5 addresses the finding of human remains. This code section states that when human remains are encountered, no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code (P.R.C.) Section 5097.98. The County Coroner must be notified of the find immediately.

If the human remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant. The Most Likely Descendant shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. It is important to note that impacts to human remains may remain significant even after mitigation.

### **6.1.6 Reporting**

In the event that no cultural resources are discovered in the course of construction monitoring, a brief letter to that effect would be prepared by the consulting archaeologist indicating that the monitoring activities have been satisfied. In the event that previously unidentified cultural resources are discovered in the course of construction monitoring, a report following Archaeological Resource Management Report guidelines (OHP, 1990) that documents field and analysis results and interprets the data within an appropriate research context would be prepared.

## **6.2 Operation Impacts Mitigation Measures**

Because operational impacts to archaeological resources are not expected for the Locally Preferred Alternative (LPA), no mitigation would be required.



## 7.0 CONCLUSIONS

This evaluation included a review of relevant archaeological records, a Native American coordination program, and an archaeological survey of the project's direct APE. The background study identified no previously recorded cultural resources within the direct APE, although three previously recorded archaeological sites are located within 0.25 mile of the direct APE. Two of these sites (CA-LAN-80 and CA-LAN-177) are important because they contained prehistoric human remains. CA-LAN-80 is located immediately adjacent to the direct APE, thereby increasing the archaeological sensitivity of this portion of the project. In addition, the direct APE lies within a long-developed and highly urbanized portion of Los Angeles County, thereby increasing the potential for encountering previously unrecorded historic resources.

The Locally Preferred Alternative (LPA) will not have operational impacts to archaeological resources. However, construction of the LPA has the potential to alter, remove, or destroy previously undiscovered archaeological resources within the APE. The physical destruction of an archaeological resource that is eligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR) would result in an adverse effect under Section 106 regulations and a significant impact under the California Environmental Quality Act (CEQA). This would also contribute to a cumulative impact on archaeological resources.

To address potential impacts to previously undiscovered archaeological resources, the project would include the production and implementation of a detailed cultural resources monitoring and mitigation plan. After mitigation, potential construction and cumulative impacts would not be significant under the National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), or CEQA.



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