

Crenshaw/LAX Transit Corridor Project

Final Environmental Impact Report/ Final Environmental Impact Statement



Metro

EXECUTIVE SUMMARY

August 2011

State Clearing House No. 2007091148

TABLE OF CONTENTS

1	Introduction
2	Purpose and Need
3	Alternatives Considered
4	Traffic and Parking
5	Evaluation of Project Alignment and Stations
6	Evaluation of Maintenance Site Alternatives
7	Section 4(f) Evaluation
8	Community Outreach
9	Cost and Performance
10	Issues Resolved
11	Response to Comments



U.S. Department of Transportation
Federal Transit Administration



Crenshaw/LAX Transit Corridor As Part of the Regional Transportation System.

ES.1 Introduction

The Crenshaw/LAX Transit Corridor, a heavily traveled north-south oriented urban corridor in Los Angeles County, California, is being considered for transit improvements by the Los Angeles County Metropolitan Transportation Authority (Metro) in cooperation with the Federal Transit Administration (FTA). The Federal Aviation Administration (FAA) is also a cooperating agency for the project with expertise in aviation matters due to the project’s proximity to LAX. These agencies have initiated an environmental review of proposed transit improvements in the

corridor and based on the comments received, the conceptual engineering activities, additional technical studies, and extensive community outreach program, the Metro Board of Directors adopted the Light Rail Transit (LRT) Alternative as the Locally Preferred Alternative (LPA). For purposes of the environmental review, Metro is serving as Lead Agency under the provisions of the California Environmental Quality Act (CEQA) and the FTA is Lead Agency as required by the National Environmental Policy Act (NEPA). The environmental review culminates in the preparation of this Final Environmental Impact Statement (FEIS) to satisfy Federal

requirements and a Final Environmental Impact Report (FEIR) to satisfy State requirements. This summary highlights the planning and review process and comparative evaluation of the LPA and design options for the Crenshaw/LAX Transit Corridor Project that will be considered for approval.

The National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA) require an environmental review of the potential impacts resulting from the implementation of a proposed action or project prior to approval of that action or project.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

Intended Use of this Environmental Document

This document describes the existing conditions and environmental setting in the Crenshaw/LAX Transit Corridor. The environmental review process has provided the public with an opportunity to review and comment on the alternatives and the environmental analysis presented in the Draft Environmental Impact Statement (DEIS)/Draft Environmental Impact Report (DEIR). This FEIS/FEIR evaluates the Locally Preferred Alternative (LPA) against the existing conditions under CEQA and future conditions without the project under NEPA (No Build Alternative). Where appropriate, mitigation measures are identified to reduce potentially adverse environmental effects that may result from implementation of the proposed project.

The FEIS/FEIR does not make recommendations regarding the approval or denial of the Crenshaw/LAX Transit Corridor Project. This FEIS/FEIR is intended as a disclosure document, to inform public agency decision-makers and the public of the environmental effects of the LPA and design options that remain under consideration. Metro and the FTA shall consider the information included in this FEIS/FEIR, along with other information which may be presented to the agency, prior to the adoption of the project. Other agencies, such as the California Department of Transportation, and the Cities of Los Angeles, Inglewood, Hawthorne, and El Segundo, and the County of Los Angeles, have also been involved in reviewing the project and participate on the Technical Advisory Committee (TAC). On the Federal level, agencies include the Advisory Council on



View of the Crenshaw Boulevard looking north from the Hyde Park area.

INTRODUCTION



View of the Yellow Car Line 5, which operated in the medians Crenshaw Boulevard and Leimert Avenue in the 1950's, heading south on Leimert Avenue towards Crenshaw Boulevard.

Historic Preservation, Federal Aviation Administration, Federal Railroad Administration, the Occupational Safety and Health Administration, and the Environmental Protection Agency.

Location of the Crenshaw/LAX Transit Corridor

The Crenshaw /LAX Transit Corridor study area is generally a north-south corridor that extends approximately ten miles in length through much of Central Los Angeles. The study area includes approximately 33 square miles and portions of five jurisdictions: the Cities of Los Angeles, Inglewood, Hawthorne, El Segundo, and portions of unincorporated Los Angeles County. The study area is generally defined as the area extending north to Wilshire Boulevard and the Park Mile area of Los Angeles; east to Arlington Avenue; south to El Segundo Boulevard and the downtown Hawthorne area; and west to Sepulveda Boulevard, La Tijera Boulevard, and La Brea Avenue. Three major interstate highways traverse the study area, including the Santa Monica Freeway (I-10) and Glenn Anderson Freeway (I-105), running east-west and the

San Diego Freeway (I-405) which runs north-south. The Harbor Freeway (I-110) parallels the corridor, running north-south immediately to the east of the study area.

Project Elements Under Consideration and Analyzed in the FEIS/FEIR

LPA. Consideration of the project is based upon a Locally Preferred Alternative, which is described below.

Route. From a southern terminus at the Metro Green Line, the alignment would follow the Harbor Subdivision Railroad right-of-way, adjacent to Aviation Boulevard/Florence Avenue and continue northeast to Crenshaw Boulevard where it would travel north within the middle of the Crenshaw Boulevard right-of-way to the Exposition/Crenshaw Station, adjacent to the Metro Exposition Line currently under construction. The length of the route of the proposed project is 8.5 miles, and the length of the LRT service is 12 miles since the proposed service operates over both new infrastructure and existing infrastructure (the existing Metro Green Line).

Stations. Stations are located at: Aviation/Century (aerial), Florence/La Brea (at grade), Florence/West (at grade), Crenshaw/Slauson (at grade), Crenshaw/Martin Luther King Jr. (below grade), and Crenshaw/Exposition(below grade)

Grade Separations. Grade separations include the following:



The Crenshaw Corridor includes five jurisdictions and covers approximately 33 square miles.

- Adjacent to the LAX south runways (fully-covered below-grade trench, as approved by FAA as the ultimate build condition)
- Aerial across Century Boulevard
- Aerial across Manchester Avenue
- Aerial across La Cienega Boulevard/I-405
- Below grade across La Brea Avenue
- Below grade Between Victoria Avenue and 60th Street

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PURPOSE AND NEED

- Below grade between 48th Street and Exposition Boulevard

With regard to the separation adjacent to the LAX south runways, the FAA requires and Metro concurs that ultimately a 1,600 foot segment covering the rail trench alignment crossing through the central portion of the LAX runway protection zones (RPZ) will be built by Metro in order to meet FAA airport design standards. The RPZ's function is to enhance the protection of people and property on the ground. The FAA has agreed to the transit alignment, but with conditions that the transit corridor must be below grade and covered. The FAA has also agreed to allow a Partially-Covered LAX Trench Option as a temporary initial development option in order to meet Metro budgetary constraints.

The environmental analysis in this environmental document evaluated the potential for environmental impacts for the LPA fully covered below-grade trench and also the partially-covered LAX Trench Option, and determined no environmental impacts resulting from either of the designs. Although the Metro Board may initially select the Partially-Covered LAX Trench Option in the Project Definition, Metro has agreed to completely cover a 1,600 foot portion of the trench as required by FAA to meet airport design standards, when future Metro funding becomes available.

Park and Ride Facilities. Park-and-ride facilities would be located at the Florence/La Brea, Florence/West, and Crenshaw/Exposition Stations.

Maintenance Facility. A maintenance facility would be located at Arbor Vitae/Bellanca (Site #14) - This 17.6-acre site is located in the City of Los Angeles.

In addition to the LPA, the following two shorter segment variations, called Minimum Operable Segments (MOSs) and five design options to the LPA are also evaluated in the FEIS/FEIR:

MOSs. The following shorter segment variations of the LPA are evaluated:

- **MOS-King** - 8-mile segment extending from the Metro Green Line (as the southern terminus) in the south to the Crenshaw/King Station in the north.
- **MOS-Century** - 7.4-mile segment extending from the Aviation/Century Station in the south to the Crenshaw/Exposition Station in the north.

Design Options. The following design options are evaluated in addition to the LPA:

- Partially-Covered LAX Trench Option - an interim solution to the fully covered trench until additional Metro

funding can fully cover the segment adjacent to the LAX south runways

- Optional Aviation/Manchester Station - additional aerial or at-grade station
- Cut-and-cover crossing at Centinela - replaces at grade configuration
- Optional Below Grade Crenshaw/Vernon Station - additional station in Leimert Park
- Alternate Southwest Portal at Crenshaw/King Station Option - replaces portal on southeast corner of the Crenshaw/Boulevard/Martin Luther King Jr. Boulevard intersection

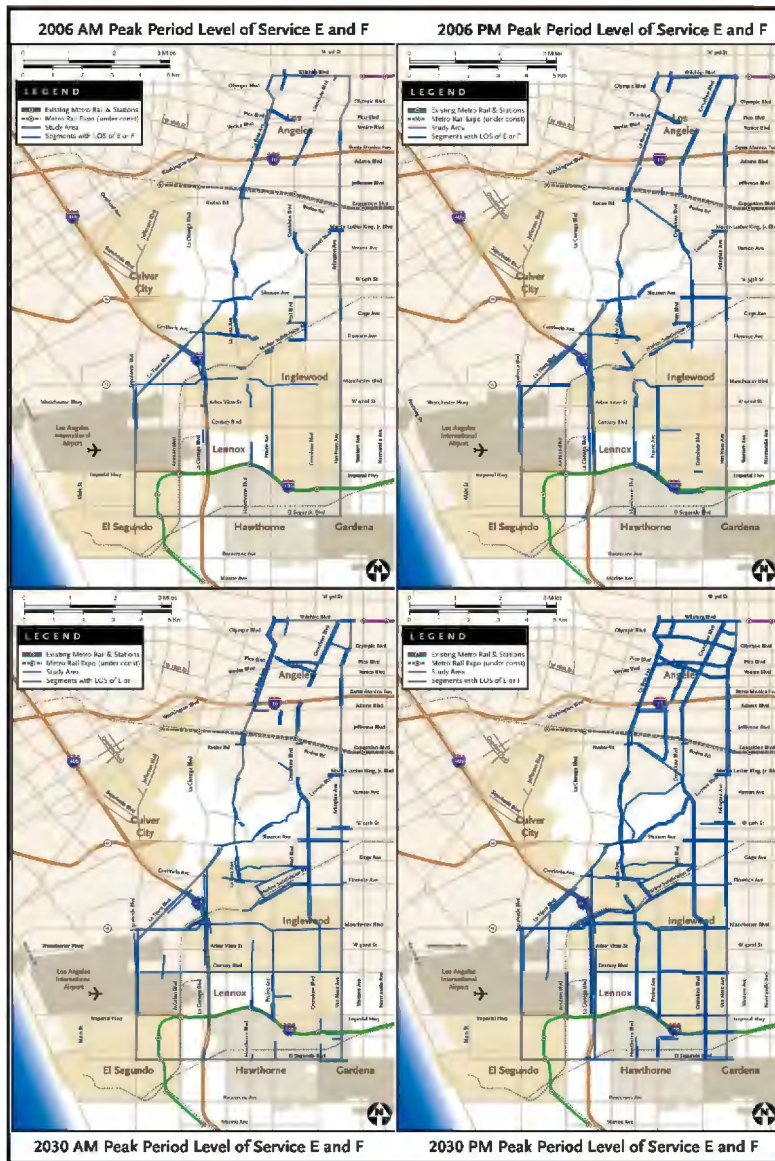
At the time of the publication of this FEIS/FEIR, the proposed project is based on the LPA and incorporates the Partially-Covered LAX Trench design option. Since several other design options and MOSs are analyzed, the Metro Board has the option to adopt a Project Definition that includes a combination of the revised LPA and any of the other elements (MOSs and design options). For example, the Metro Board has already directed that the Crenshaw/Vernon station option be continued as a design option for purposes of procuring construction bids. The Federal Record of Decision will be based upon the ultimately adopted Project Definition by the Metro Board.

Who is on the Metro Board? Metro is governed by a 13-member Board of Directors comprised of: five Los Angeles County Supervisors; the Mayor of Los Angeles; three Los Angeles mayor-appointed members; four city council members representing the other 87 cities in Los Angeles County; and the Governor of California appoints one non-voting member.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PURPOSE AND NEED



The number of street segments in the corridor that will be overloaded and congested will double between today and the year 2030.

ES.2 Purpose and Need

Previous Planning Studies

In 1967, the Crenshaw/LAX Transit Corridor was initially included in the region's first modern rail system plan. Over the past 40 years, Metro and its predecessor agencies - the Southern California Rapid Transit District

(SCRTD) and the Los Angeles County Transportation Commission (LACTC) have undertaken numerous plans and studies that documented the lack of connectivity and mobility and the need for transportation improvements in the Crenshaw/LAX Transit Corridor. Studies concluded that transportation within and from the Crenshaw/LAX Transit Corridor was constrained, congested, and urgently

in need of system improvements.

Metro has completed three transportation studies of the Crenshaw/LAX Transit Corridor over the past 13 years alone. In 1994, the Crenshaw-Prairie Corridor Preliminary Planning Study clearly identified the need for high-capacity transit system improvements. These options were studied further in December 2000, with the Crenshaw-Prairie Corridor Route Refinement Study. This report identified the need for viable transportation alternatives for the Crenshaw/LAX Transit Corridor. In 2003, the Crenshaw-Prairie Corridor Major Investment Study (MIS) was completed to assist decision-makers in evaluating the most effective solution, or phasing of solutions, to the transportation challenges identified in the Crenshaw/LAX Transit Corridor while achieving local goals and objectives. The MIS provided the foundation for the inclusion of the Crenshaw/LAX Transit Corridor into the Metro Long Range Plan. A description of each of these three previous studies is presented in Section 1.0 Purpose and Need of the FEIS/FEIR.



View of Interstate 405 near Hughes Parkway. I-405 is the only north-south high capacity transportation facility within the corridor and it is congested for many hours of the day.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PURPOSE AND NEED

Need for the Project

This section describes the need for the Crenshaw/LAX Transit Corridor. The following factors highlight the need for transit improvements such as the proposed project. Each of these factors is briefly explained and described in this section.

- Peak Period Congestion
- Limited Transportation Accessibility
- Poor Connections with Regional Transportation
- Limited Access to Services Outside of the Corridor
- The Corridor's Economic Future Is Dependent on Improved Accessibility
- High Transit Demand, Transit Dependency, and Transit Operation Challenges
- Benefit to the Environment and Improved Sustainability for Corridor Communities

Travel demand forecasts prepared by the Southern California Association of Governments (SCAG) and Metro over the past decade have identified the need for transit improvements throughout the Southern California Region, particularly in Los Angeles County, to meet the mandates of the federal Clean Air Act and address the increasing mobility needs of the region.

The 2008 SCAG Regional Transportation Plan (RTP) determined that travel conditions in the Crenshaw/LAX Transit Corridor will worsen by 2030 and the area will not meet regional objectives for transportation mobility, accessibility, reliability, or safety without additional transportation improvements. Subsequent travel demand forecasting conducted for the current update of the Metro Long Range Transportation Plan has confirmed the continuing need for mobility improvements in the corridor. Existing Transportation facilities and services within the Crenshaw/LAX Transit Corridor include arterial streets, freeways, bus routes, and rail lines. The

topography and street grid of the corridor present unique challenges to existing transportation facilities and services. There are few north-south arterials in the corridor that cross the western portion of the Crenshaw/LAX Transit Corridor. As a result of this constrained network, pressure is placed on nearby north-south arterials such as La Cienega Boulevard and La Brea Avenue.

Peak Period Congestion

Los Angeles has the distinction of being the most congested urban area in the country, according to the most recent annual survey of traffic congestion levels



The Baldwin Hills are a significant topographic constraint in the Crenshaw Corridor. The feature limits the continuity of the transportation network in both north-south and east-west directions increasing the importance of efficient traffic flow along Crenshaw Boulevard.

The population and employment densities of the study area are approximately four times that of Los Angeles County based on the Southern California Association of Governments (SCAG) 2006 and projected 2030 data.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PURPOSE AND NEED



The Crenshaw Corridor is largely a residential community. Access to regional transportation linking to jobs, services and education is key. Pictured here is a morning rush hour view of Crenshaw Boulevard near the entrance to the I-10 which connects the corridor to Downtown and West Los Angeles.

conducted by the Texas Transportation Institute. Current freeway and surface arterial facilities cannot be sufficiently expanded to handle the forecasted travel demand. The number of roadway segments within the Crenshaw/LAX Transit Corridor that are congested, that is locations where traffic volumes consume more than 90 percent of the street capacity, is expected to more than double between 2006 and 2030 in both the AM peak travel period, 7:00 a.m. to 9:00 a.m. and the PM peak travel period, 3:00 p.m. to 7:00 p.m.

Local Roadways. By 2030, congestion is expected for Crenshaw Boulevard north of Manchester Boulevard to Wilshire Boulevard, the northern terminus of the



Existing Rapid Bus service along Crenshaw Boulevard (lines 710 and 740) has been well received.

study area. In addition, La Brea Avenue, Hawthorne Boulevard and Prairie Avenue, between Manchester Boulevard and the I-105 would continue to experience heavy traffic conditions and congestion during the morning peak period. The increased traffic congestion would result in lower peak period travel speeds along these corridors, generally below 30 miles-per-hour with speeds below 20 miles-per-hour along some sections of Crenshaw Boulevard.

Freeways. The I-10, I-105 and I-405 experience high levels of congestion, particularly during peak commute periods. The I-105 and I-405 also experience heavy traffic throughout the day as they provide regional access to West Los Angeles and Los Angeles International Airport (LAX). Based on the 2006 Caltrans traffic counts, the I-105 and I-405 carry an annual average daily traffic (AADT) volume of approximately 247,000 and 305,000 vehicles per day near LAX, respectively. The AADT for the I-10 within the study area is also high, at approximately 301,000 vehicles per day. The I-10 has peak period congestion levels rated at F3, meaning that the freeway operates at Level of Service (LOS) “F” conditions for more than three hours in each peak travel period (Caltrans, 1998). Between 2006 and 2030, peak period traffic volumes on the freeway segments within the corridor are expected to increase by 20 to 90 percent. Based on traffic forecasts for the AM peak period, traffic volumes on the I-10 near Crenshaw Boulevard are anticipated to increase by more than 50 percent, from approximately 31,000 vehicles to 48,000 vehicles. During

the same peak period, traffic volumes on the I-405 are forecasted to grow 40 to 50 percent, from approximately 30,000 vehicles to 43,000 vehicles. On the I-105, AM peak period traffic volumes are expected to increase by approximately 20 percent or more, with up to 90 percent increases in the westbound direction near LAX. This would result in AM peak period traffic volumes increasing from approximately 23,000 vehicles in 2006 to 30,000 vehicles in 2030.

Limited Accessibility

While the Crenshaw/LAX Transit Corridor is served by two east-west running interstates, the I-10 and I-105, the corridor is constrained by the lack of north-south mobility. Major sections of the arterial network in the corridor are at or near capacity, resulting in severe congestion and a bottlenecked corridor. The terrain of the corridor, generally characterized by a series of small hills, also precludes the provision of major east-west streets in the study area from Exposition Boulevard south to Manchester Boulevard, adding further limitations to north-south traffic flow. Implementation of an effective north-south transportation network within the Crenshaw/LAX Transit Corridor is vital to alleviate current and projected connectivity and mobility problems. Improving transportation in this corridor would affect corridor residents and businesses by providing essential linkages from residential areas to commercial, activity, employment, and institutional centers within and adjacent to the corridor.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PURPOSE AND NEED

Poor Connections to Regional Transportation

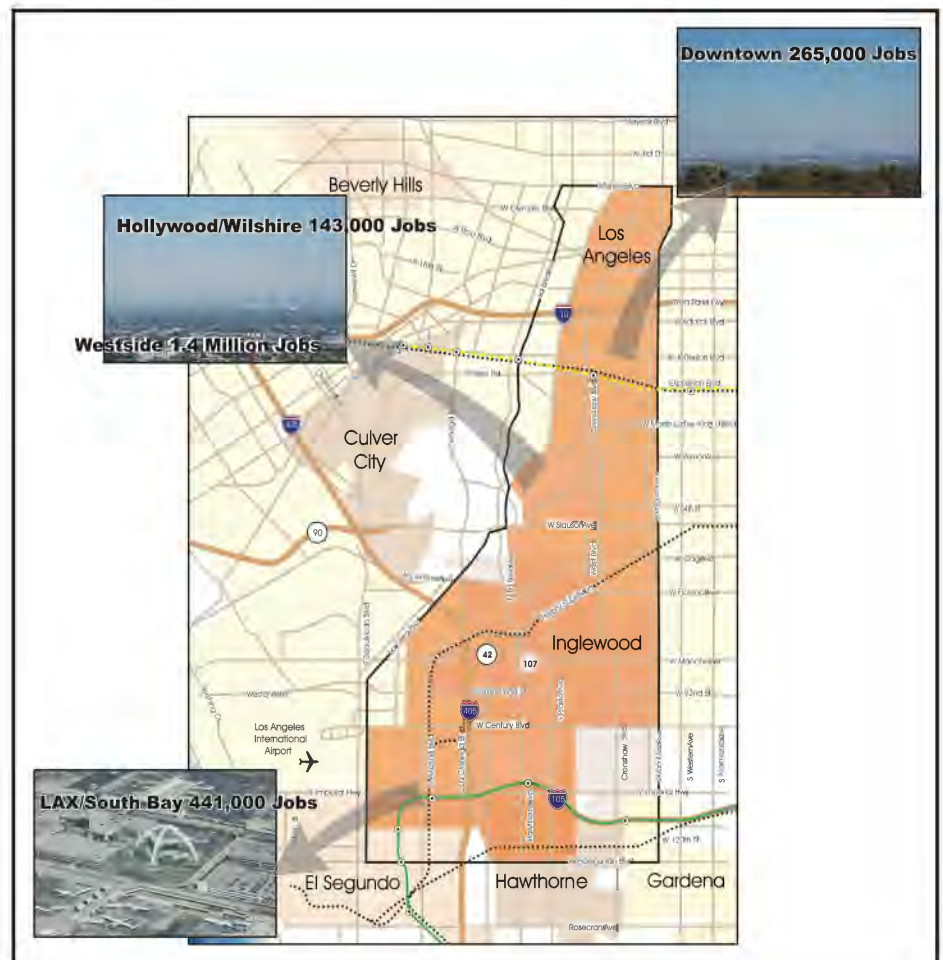
The corridor currently has poor connections to the regional transportation system, as there are no north-south high capacity transportation connections within the corridor. This lack limits mobility and transportation choices. Typically, the Crenshaw/LAX Transit Corridor residents must make several local bus and/or “Rapid Bus” transfers in order to access the existing regional transit system with an average travel time from 32 to 42 minutes. The corridor’s primary transit service, bus transit, is constrained by vehicular congestion and increased demand for service, resulting in a lack of effectiveness and passenger convenience.

By 2030, the Crenshaw/LAX Transit Corridor transit demand is projected to increase by approximately 55 percent. Without significant improvements and capacity enhancement, the corridor’s transit system will be substantially overburdened, and mobility to and from the corridor will be significantly constrained. There is an urgent need to improve transportation mobility and reliability in the corridor by improving both the level and quality of transit service. As population and employment continue to grow, the lack of regional transportation system connections will become more detrimental to future corridor travel and economic development.

Limited Access to Services Outside of the Corridor

One of the key components to socioeconomic mobility is access to jobs, services and education. The Crenshaw/LAX Transit Corridor is predominantly residential in character. While the corridor contains important regional destinations such as LAX, the Forum, and Hollywood Park as well as local destinations including the Baldwin Hills-Crenshaw Plaza, the AMC Magic Johnson 15 movie theatre complex, the

Nate Holden Performing Arts Center, the West Angeles Church of God in Christ, and other religious institutions, jobs, retail services and colleges are located outside of the corridor. With the implementation of transit improvements in the Crenshaw/LAX Transit Corridor, many of the transit-dependent residents would be able to easily access important destinations outside of the corridor, as well as take advantage of community civic centers located in the cities of Inglewood and Hawthorne, and a large number of shopping districts and centers located in



The vast majority of jobs are found outside of the Crenshaw/LAX Transit Corridor. Transit access to Downtown LA, Hollywood, Wilshire Corridor, Century City, South Bay and West Los Angeles is a critical element to the sustainability of communities within the Crenshaw/LAX Transit Corridor.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

Koreatown, the Crenshaw District, and downtown Inglewood.

Although the Crenshaw/LAX Transit Corridor contains several employment destinations, active retail centers, and stable residential neighborhoods, there are many more activity and employment centers located outside of the corridor toward downtown Los Angeles, the Westside and South Bay. Corridor travelers have limited options and accessibility. Future transportation improvements within the corridor will need to reflect a multi-modal strategy providing travelers with a more complete set of transportation alternatives.

The Corridor's Economic Future Is Dependent on Improved Accessibility

A majority of the Crenshaw/LAX Transit Corridor is encompassed by redevelopment areas within the Cities of Los Angeles, Inglewood, and Hawthorne. City redevelopment agencies function in attracting private investment into economically depressed communities, eliminating blight and abandoned or unsafe properties. There is a strong connection between redevelopment and revitalization of these areas and transportation system improvements. Increased accessibility, mobility, and links to transit provide opportunity for increased development densities. All or portions of 11 redevelopment plan areas are located within the corridor. A majority of the corridor's key activity and employment destinations are currently preparing expansion (e.g. Baldwin Hills/Crenshaw

Plaza), revitalization (e.g. , downtown Inglewood), or redevelopment plans (e.g., Hollywood Park). The success of these projects and the corridor's economic future are strongly dependent on improved local and regional accessibility.

High Transit Demand, Transit Dependency, and Transit Operation Challenges

The existing population and employment density in the Crenshaw/LAX Transit Corridor is extremely high and very transit supportive. The corridor population and employment densities are four times higher than Los Angeles County as a whole. The corridor has a high concentration of low-income, minority, transit-dependent residents. More than 49 percent of all corridor households are designated as low income. In addition, 16 percent of all households in the corridor do not have access to an automobile, compared to 8 percent in the County's urbanized area. Forecasts show a growing transit-dependent population, with a projected 55 percent increase in corridor residents that rely on, or will rely on the area's transit system.

As a result of the higher than average transit ridership in the corridor, many of the buses serving the corridor are at or over capacity, resulting in

PURPOSE AND NEED

overcrowding, rider pass-bys and loading delays. These issues then contribute to uneven headways and related schedule problems. Overcrowding also reduces the life of buses and contributes to higher maintenance costs. Bus operating conditions are affected by traffic conditions under which the service operates, passenger loading time, and bus-stop spacing.

The corridor has substantial traffic congestion, high bus ridership and load factors, and closely spaced bus stops. Combined, these factors result in declining bus operating speeds, reducing competition with the private automobile. Currently, local bus service in the Crenshaw/LAX Transit Corridor operates at 10 to 13 miles-per-hour and the Metro Rapid buses operate at 13 to 15 miles-per-hour during AM and PM peak periods. Operating speeds are expected to decline further in the future as congestion increases.

Benefit to the Environment and Improved Sustainability for Corridor Communities

The corridor is contained within the South Coast Air Basin, which has the worst air quality in the nation. Mobile source emissions from vehicles are the single largest contributor to air quality problems in the basin. The Crenshaw/

What is an Alternatives Analysis? Transit projects typically proceed through the FTA's process, consisting of five formal steps: Alternatives Analysis Study, Environmental Impact Statement, Preliminary Engineering, Final Design, and Construction. The Alternatives Analysis Study is designed to examine all the potential transit options available and determine a locally preferred alternative.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

CONSIDERATION OF ALTERNATIVES

LAX Transit Corridor Project would provide transportation and transit improvements that would provide the area with an energy-efficient way of reducing the number of vehicles on roadways and freeways. This would contribute to the improvement of Southern California's regional and local air quality, and a reduction in greenhouse gas emissions. Moreover, both Federal and State government are placing increased emphasis on improving the sustainability of neighborhoods and communities. Improved accessibility utilizing transit improvements will greatly aid in achieving sustainability for neighborhoods and

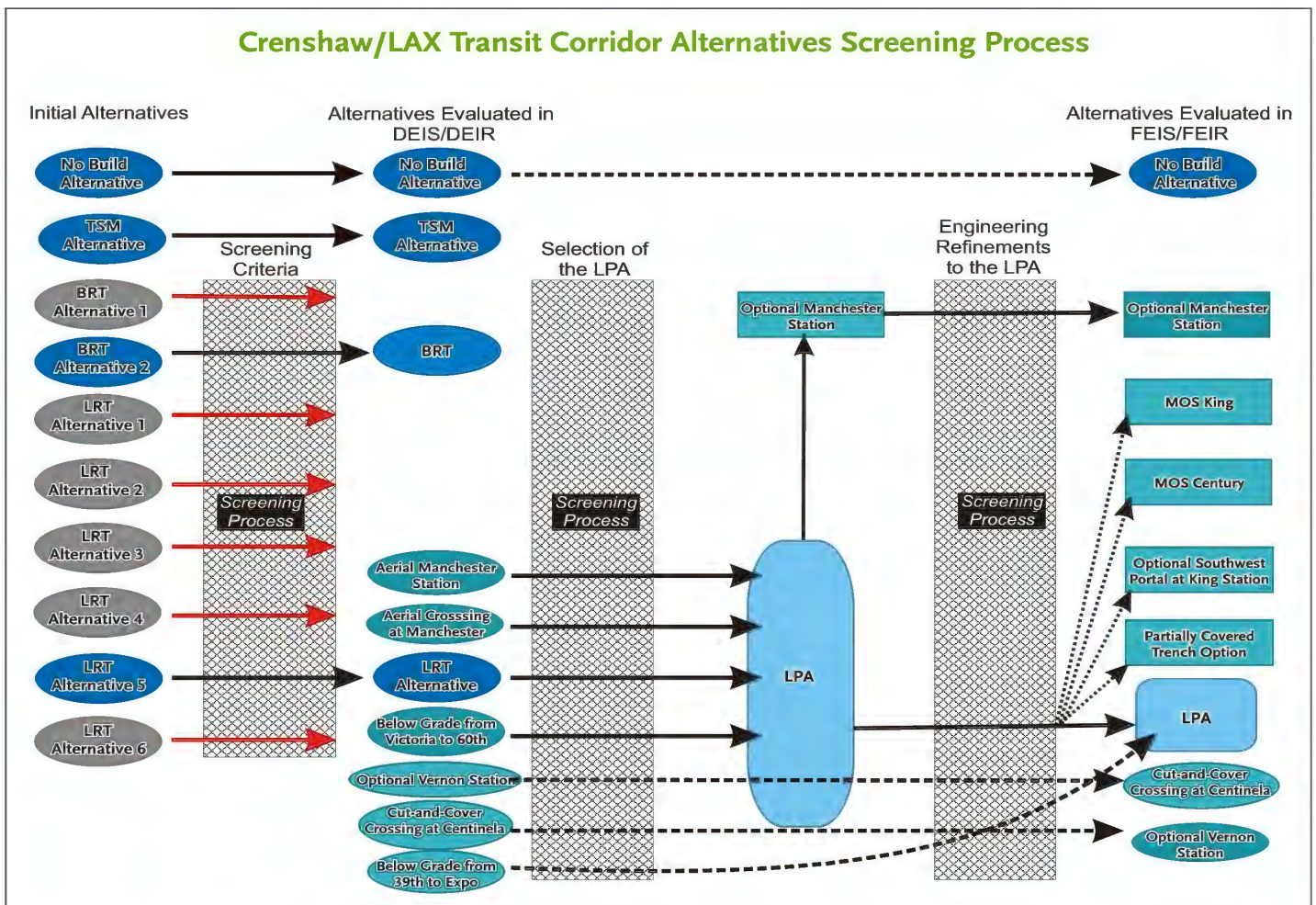
communities within the corridor that are highly dependent on access to employment, services and education resources outside of the boundaries of the corridor.

ES.3 Alternatives Considered

As part of the environmental review process, Metro followed an established protocol to identify the transit alternatives and issues to be analyzed, including seeking input from the public, corridor stakeholders, and other affected parties. The alternatives in the DEIS/DEIR provided a reasonable range of

possible alternatives, which met the project goals and objectives. As part of this process, Metro considered all reasonable alternatives before selecting the preferred alternative.

The process typically results in the narrowing down of options and alternatives are eliminated based on their effectiveness, environmental impacts, efficiency, financial feasibility, and equity. The end result of the process is the selection of a locally preferred alternative, or LPA, by the Metro Board. The identification and screening of the alternatives is shown below.



CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

CONSIDERATION OF ALTERNATIVES



Initial alignment alternatives were built up from a variety of alignments in the corridor.

Locally Preferred Alternative Selection Process

Prior to the selection of a Locally Preferred Alternative (LPA), the initial alternatives were presented at scoping meetings and reviewed with input from the public and various agencies. The alternatives were screened using engineering and environmental

constraints such as comparing transit design configurations and alignments to existing right-of-way widths and then

to the surrounding community and environment. The alternatives included a No-Build Alternative, a Transportation System Management (TSM) Alternative, a Bus Rapid Transit (BRT) and Light Rail Transit (LRT) operating along different alignments.

Evaluation of Alternatives

A list of criteria was used in order to compare the performance of each alternative.

These criteria included:

- Regional Connectivity
- Key Environmental Effects
- Economic Development/Land Use Planning
- Ridership
- Travel Time and Reliability
- Cost-Effectiveness
- Financial Capability
- Regulatory Constraints

The results of the analysis showed that the LRT Alternative would:

- Generate the greatest benefits to travel time along the corridor;
- Generate more riders along the segment between the Exposition Line and the Metro Green Line;
- Improve accessibility for passengers in several corridors;

What is an LPA? The DEIS/DEIR process culminated in the Metro Board of Directors making a recommendation for the Locally Preferred Alternative (LPA). A LPA is the project alternative that the Lead Agency feels would best balance the needs of the population for which the project serves. This recommendation was based on the results of the environmental evaluation as well as public opinion conveyed throughout the public participation process. The selection of an LPA has allowed the project to move forward into more advanced design and engineering, with a more detailed environmental analysis as presented in this FEIS/FEIR.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

- Provide economic development in the corridor;
- Create more opportunities for linkages with adjacent development
- Provide the largest degree of travel time savings, reliability and ridership for comparable segments;
- Provide the strongest support of community goals for economic development; and
- Provide connections with other elements of the Metro rail system, including the ability to facilitate a connection to LAX airport-service.

Selection of a Locally Preferred Alternative

Following circulation of the DEIS/DEIR, a LPA Recommendation Report was prepared which proposed the adoption of the Light Rail Transit Alternative, including several design options, as the locally preferred alternative. Based on the environmental review, conceptual engineering activities and technical studies, as well as feedback from an extensive community outreach program, the Metro Board of Directors adopted the Light Rail Transit Alternative as the Locally Preferred Alternative.

The Board Adopted LPA Included the Following Options:

Design Option 1

Design Option 1 involves an aerial station on the north side of Century Boulevard instead of an at-grade station located approximately 1,500 feet north of Century Boulevard near 96th Street.



Design Option 1 is an elevated station at Century Boulevard.

Design Option 2

Design Option 2 involves an aerial crossing rather than an at-grade crossing at Manchester Avenue. An aerial crossing over Manchester Avenue would replace the at-grade LRT alignment and would extend an aerial alignment approximately 1,300 feet within the Harbor Subdivision. The over crossing would consist of an 800-foot bridge and 250-foot approaches on each side. The aerial alignment would return to grade on the north side of Manchester Avenue before the at-grade station proposed on the north side of Hindry Avenue.

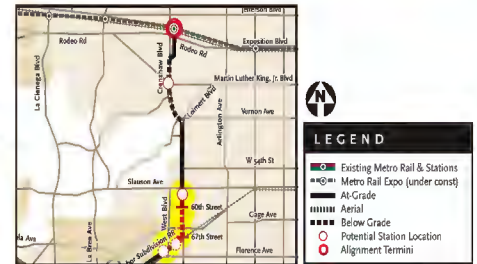


Design Option 2 is an elevated crossing above Manchester Avenue

Design Option 4

Design Option 4 involves a cut-and-cover alignment between Victoria Avenue and 60th Street instead of an aerial alignment, starting on Crenshaw Boulevard and extending into the Harbor Subdivision. The below-grade alignment would be built as a cut-and-cover tunnel.

CONSIDERATION OF ALTERNATIVES



Design Option 4 is a below grade alignment from 60th street to Victoria Avenue.

Based on the evaluation, Design Options 1, 2 and 4 would address technical and environmental requirements and would best meet the goals and objectives established for the corridor while staying within the proposed budget for the project. Design Option 1 would facilitate a potential connection to LAX, providing the largest amount of regional connectivity which would lead to higher potential ridership once that connection is established. Design Option 2 would eliminate potential traffic impacts at the Manchester Avenue crossing. This key environmental effect would be achieved at a relatively low cost compared to the other design options. Design Option 4 would also eliminate key environmental effects, specifically related to the aerial structure impacts to the visual character of the Hyde Park neighborhood, which is a low income area that is subject to environmental justice consideration. Because these aesthetic and community division effects would be disproportionately placed on the low income Hyde Park community environmental justice impacts would also occur. Design Option 4 eliminates these potential environmental effects. For these reasons, Design Options 1, 2, and 4 were recommended to be incorporated into the LPA.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

Design Options Carried Forward with the LPA

Three other design options were not recommended as part of the LPA but were authorized for continued environmental review and advanced conceptual engineering so that they could be implemented at a later time, should funding become available. The three design options to be carried forward included:

Design Option 3

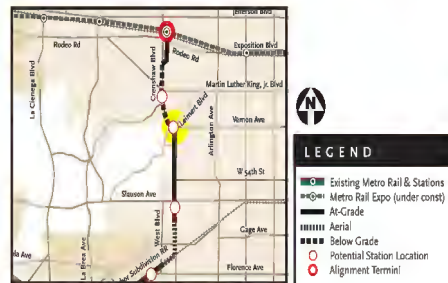
Design Option 3 involves a cut-and-cover crossing instead of an at-grade crossing at Centinela Avenue. An LRT under-crossing at Centinela Avenue would replace the at-grade LRT alignment proposed under the LPA and would extend approximately 2,000 feet within the Harbor Subdivision. The under-crossing would consist of a 200-foot long bridge with a 700-foot depressed LRT alignment section on the west and an 1,100-foot depressed section on the east side of Centinela Avenue.



Design Option 3 is a grade separation at the Harbor Subdivision and Centinela Avenue.

Design Option 5

Design Option 5 involves a below-grade station at Vernon Avenue in Leimert Park. The Crenshaw/Vernon station is an optional below-grade station. This would be within a half mile of Crenshaw/King Station.



Design Option 5 considers the feasibility of two stations in close proximity at Crenshaw/King and at Crenshaw/Vernon. The Crenshaw/Vernon station is the optional station.

Design Option 6

Design Option 6 involves a below-grade alignment between 39th Street and Exposition with a below-grade station at Crenshaw Boulevard and Exposition Boulevard. A below-grade alignment between 39th Street and Exposition Boulevard would replace the at-grade LPA alignment and would extend the tunnel north of Martin Luther King Jr. Boulevard to Exposition Boulevard with a below-grade station.



Design Option 6 is a below grade alignment along Crenshaw Boulevard between Exposition and 39th Street.

Supplemental Draft Environmental Impact Statement/Recirculated Draft Environmental Impact Report

Four initial maintenance and operations facility sites were evaluated in the DEIS/DEIR. These sites were compared using evaluation criteria such as size and

CONSIDERATION OF ALTERNATIVES

proximity; land use and zoning; land ownership; buffers; potential expansion; community disruption; and most valuable and best use. Based on the analysis, these four potential maintenance sites were ranked from most preferred to least preferred.

Based on public comments and concerns expressed during the comment period, the Metro Board, as part of its actions on the Project, removed from further consideration the two maintenance facility sites (Sites B and D) in the cities of Los Angeles (Westchester) and El Segundo that were evaluated in the DEIS/DEIR. A Supplemental Draft Environmental Impact Statement (SDEIS)/Recirculated Draft Environmental Impact Report (RDEIR) was prepared to provide environmental analysis of four new alternative maintenance facility sites for the proposed project. In addition, a Section 4(f) Evaluation of eligible historic resources and parklands within the updated APE for the project was completed.

Refinements to the Locally Preferred Alternative (LPA)

Following adoption of the LRT as the Locally Preferred Alternative, various refinements were required due to engineering constraints, environmental concerns, and budgetary considerations. The refinements to the LPA associated with this base project are described below.

La Brea Avenue Crossing.

An open trench configuration across La

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

CONSIDERATION OF ALTERNATIVES



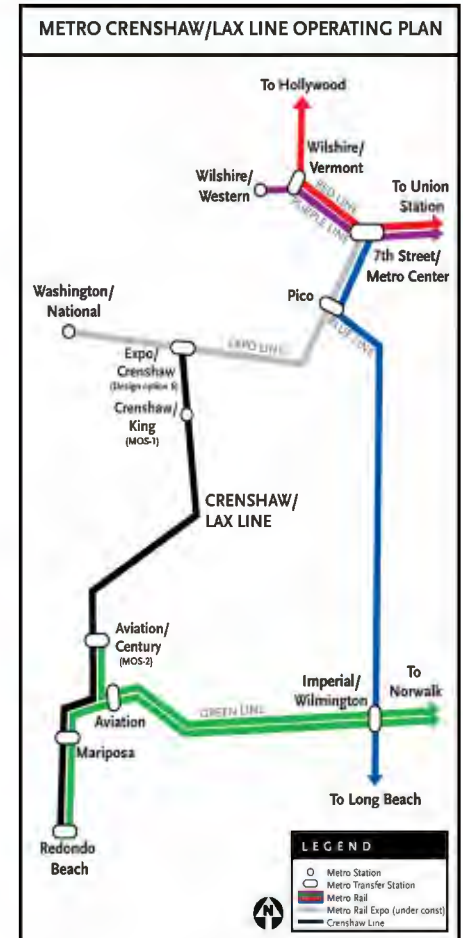
LPA Alignment. The LPA route is approximately 8.5 miles in length. It extends from the Exposition Light Rail line to the Green Line. This baseline option includes at grade, below grade and elevated sections, with six stations, as shown above.

Brea Avenue with an at-grade station east of the Market Street.

Segment from 39th Street to Exposition Boulevard.

The LPA's northern terminus at the Crenshaw/Exposition Station had an at-grade configuration with a design option

for a below-grade alignment (Design Option 6), which would extend a tunnel between 39th Street and a below-grade Crenshaw/Exposition Station. During the ACE phase, all analyzed at-grade configurations were determined infeasible due to physical constraints and significant traffic and land use impacts. Design



LPA operation will involve a single service from Exposition/Crenshaw to Aviation/Century, with a connection to the Redondo Beach Station along new infrastructure and the Metro Green Line.

Option 6 is determined to be a feasible alternative to an at-grade alignment and is recommended for inclusion into the project definition, contingent upon the section's financial feasibility. In the event that Design Option 6 cannot be incorporated into the project, the FEIS/FEIR also considers two Minimum Operable Segments (MOS) alternatives that would be consistent with the Metro financial plan for the project. MOS-King would extend from the Metro Green Line to the King Station, at a distance of 8

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

CONSIDERATION OF ALTERNATIVES



Below-grade trench alignment along Aviation Boulevard, adjacent to LAX south runways.

miles. MOS-Century would extend from the Metro Exposition Line to the Aviation/Century Station, at a distance of 7.4 miles, and would include Design Option 6. MOS-Century would also require a bus feeder connection to the Metro Green Line at the southern end. If constructed, either MOS would be consistent with the established financial plan for the Crenshaw/LAX Transit Corridor Project. As stated previously, the Partially-Covered LAX Trench Option has been incorporated into the project definition as an interim solution to the fully covered condition. The Partially-Covered Trench configuration would allow a concrete cap over 1,000 feet of the below grade track with two 500-foot covered sections. Two other design options that may be incorporated into the project definition (based on potential for cost savings and reduction in environmental impacts in one case, and based upon Board action in the other). These options will further be explored through the preliminary

engineering phase and during the procurement of design build contracts.

Alternate Southwest Portal at Crenshaw/King Station Option. This option involves an alternate portal at the southwest corner of the Crenshaw Boulevard/Martin Luther King Jr. Boulevard intersection. During the preliminary engineering phase of the project, Metro determined that a providing connection in front of the Broadway building (Walmart) could provide increased access to the regional mall. In addition, potential cost savings and fewer displacements could be achieved through less property acquisition (The portal would be located within the

existing landscaped sidewalk adjacent to the Broadway building and would provide vertical circulation to the underground Crenshaw/King Station). The portal could also be located in the basement of the Broadway building to provide a direct connection to the Baldwin Hills Crenshaw Plaza. This alternate portal is not included within the current project financial plan and would only be implemented if the land were privately funded or if easements to privately-owned land are granted. This station is located at the most heavily developed area of the entire line with a major shopping center near the site. While this design option is not yet incorporated into the project definition, negotiations with the mall owners may yield savings which allow it to be adopted as part of the project definition.

Below-Grade Crenshaw/Vernon Optional Station. Since the adoption of the LPA, the Metro Board, at its May 2011 meeting, directed the below-grade Crenshaw/Vernon Station to be considered as an option within the procurement of design-build contracts. While this action did not incorporate the optional station into the project definition, it placed an emphasis on carrying the design forward for the design-build procurement process. It may be implemented if bids for the project

What is the Harbor Subdivision? The Harbor Subdivision is a freight rail corridor, approximately 26 miles in length, that traverses southwest Los Angeles County from Vernon to Wilmington. In the early 1990s, Metro purchased the portion of the corridor between Redondo Junction and Watson Yard, along with several other rail rights-of-way, to further the development of the region's rapid transit system. Metro has initiated an Alternatives Analysis Study (AA) for the Harbor Subdivision Transit Corridor. The study will examine potential transit service along the Metro-owned Harbor Subdivision.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

PROJECT ALIGNMENT



Existing view of the Aviation Boulevard/Manchester Avenue intersection.



Aerial structure across Manchester Avenue.

including this design option fall within the project funding amount.

Project Alignment

The southern terminus of the alignment would begin at the existing Metro Green Line Aviation Station which is in an aerial configuration, and transition northerly to a below-grade trench configuration, south of 111th Street, as it passes adjacent to the LAX south runways. The baseline configuration of the project near LAX Runway 25L and 25R ends is a cut-and-cover trench that is covered with a reinforced concrete roof. This is based on comments received from the Federal Aviation Administration (FAA) and Los Angeles World Airports (LAWA) on the DEIS/DEIR. There is also an interim option for a depressed partially-covered trench. 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 located 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 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.

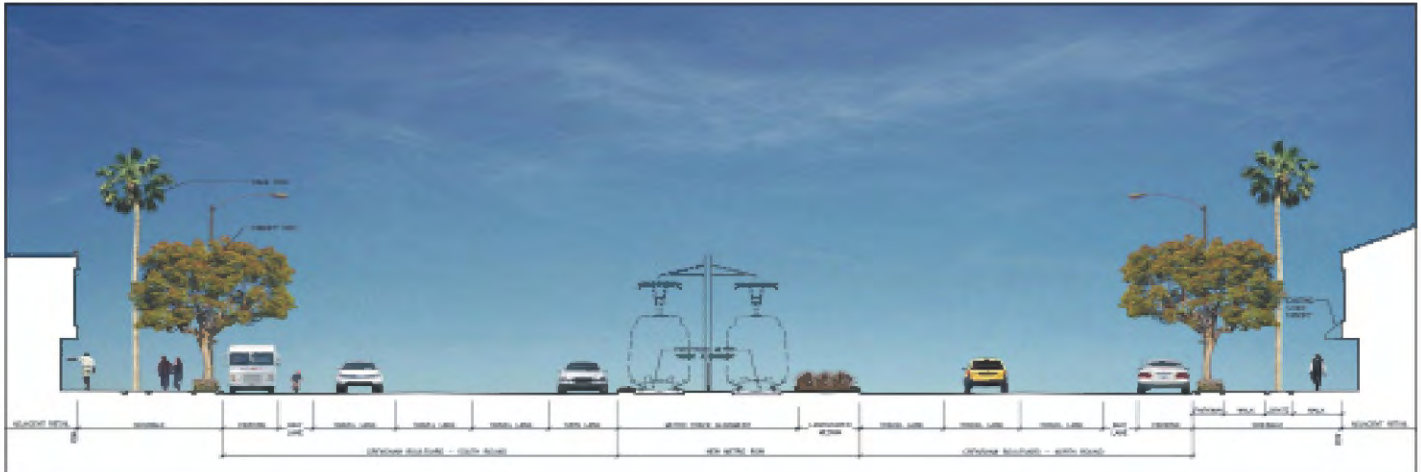
West of Victoria Avenue, the alignment would transition to a below-grade tunnel and continue along the Harbor Subdivision until Crenshaw Boulevard where it would continue north under Crenshaw Boulevard until north of 59th Place where it would transition to grade level in through a portal in the middle 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



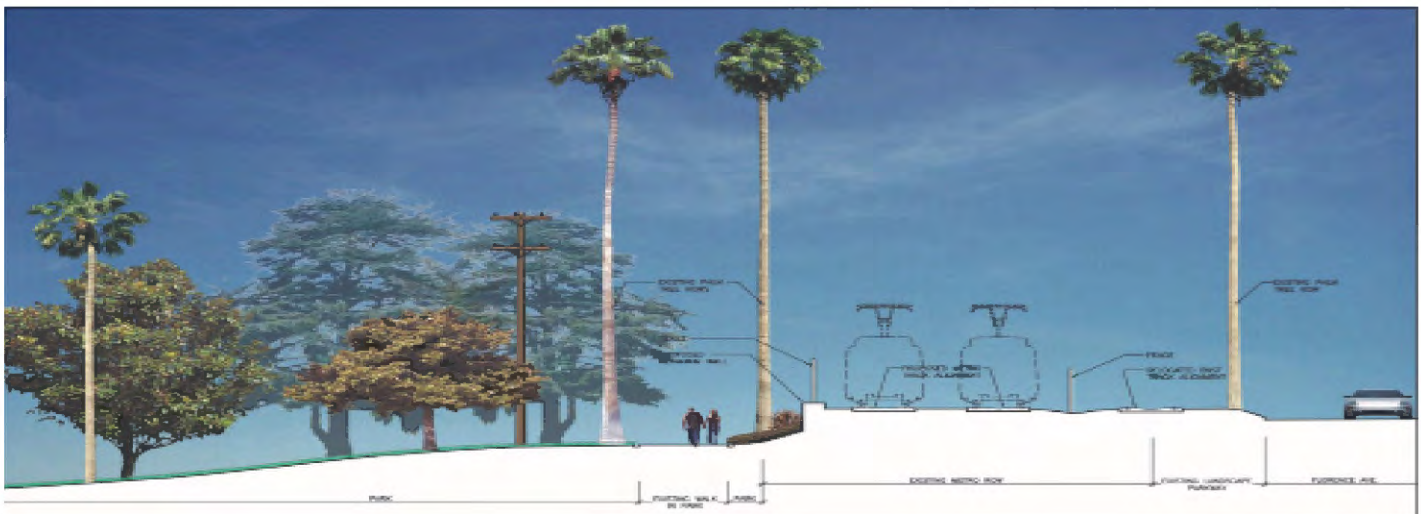
Existing view of Florence Avenue crossing at I-405.



Rendering of aerial structure over I-405.



Cross-sectional view of Crenshaw Boulevard between 54th and 57th Streets



Cross-sectional view of the Harbor Subdivision near Edward Vincent Jr. Park.

LRT without reducing roadway lane capacity.

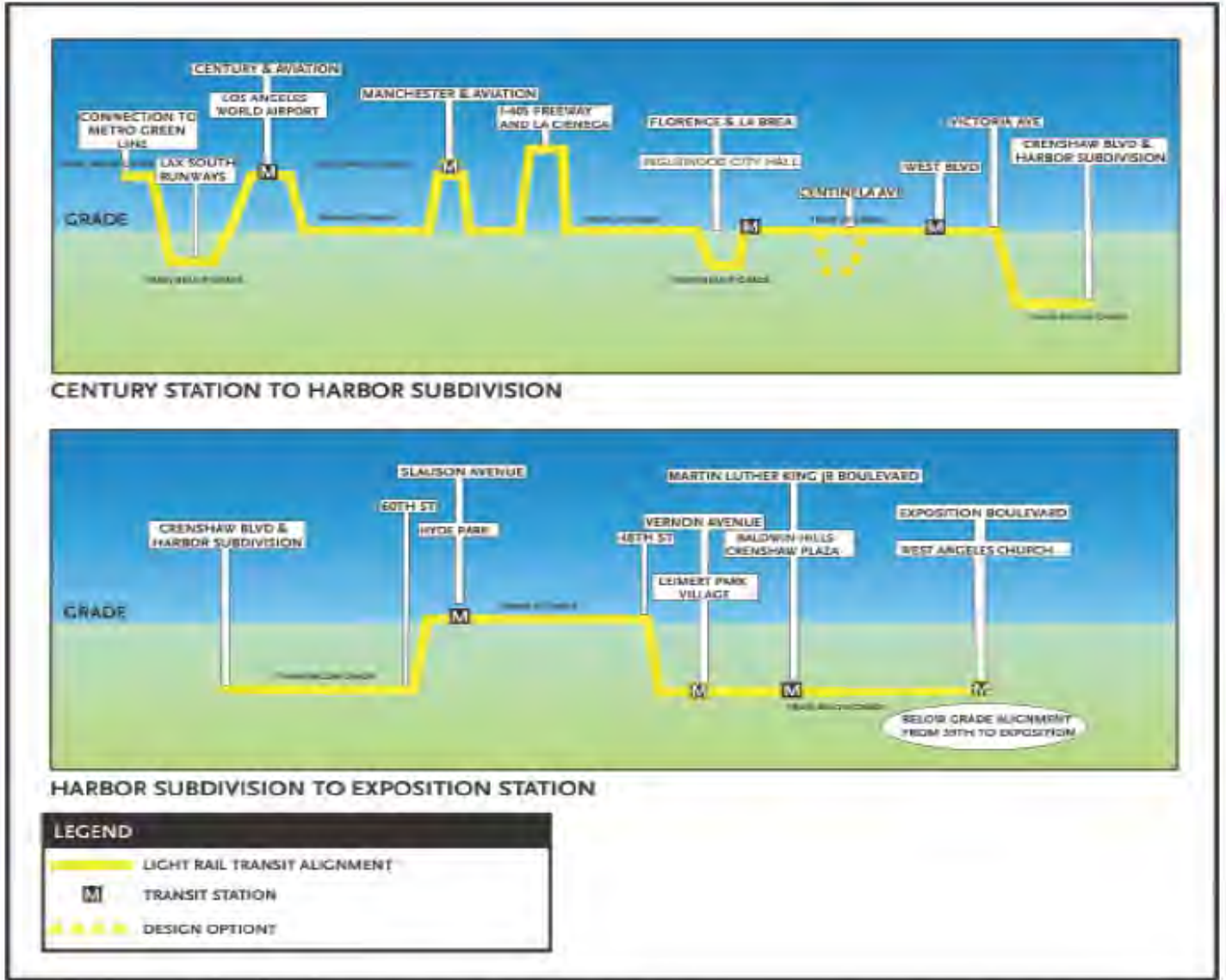
The alignment would travel at grade in a new median of Crenshaw Boulevard south of 59th Street to 48th Street. The frontage roads along Crenshaw Boulevard would be eliminated where the alignment is operating at grade. There would be an at-grade station in the median of Crenshaw Boulevard, south of Slauson 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 terminus associated with an MOS at King or at Exposition Boulevard (the terminus for the LPA), 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 King and Exposition Boulevards with portal entrances on properties adjacent to Crenshaw Boulevard.

What is an Overhead Contact System? A distinctive feature of LRT is that the vehicles draw power from overhead wires, known as the overhead contact system (OCS). This allows LRT systems to be integrated with other at-grade transportation modes, such as automobiles and pedestrians.

PROJECT ALIGNMENT



Vertical Profile of the LPA Alignment.

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

Stations and Station Parking. The LPA would include six stations for passenger access and three park-and-ride facilities. The location and size of the park-and-ride

facilities was refined during the advanced conceptual engineering process. Together, these facilities would satisfy the transit corridor’s parking demands.

For transit passengers’ convenience and to control capital, operating, and maintenance costs, the proposed stations, including signage, maps, fixtures, furnishings, lighting, and communication

equipment, would have a consistent design similar to the existing Metro LRT stations. LRT Station types would be either at-grade, aerial, or below grade, and

LRVs would be equivalent to those Metro operates on the existing Metro Blue, Green and Gold Lines. Each vehicle would be equipped for independent two-way operation, with a driver’s cab at each end and would have equal performance in either direction.

are comprised of 270 feet long platforms that accommodate LRT trains with up to three cars. The project includes two at-grade stations, one underground station, one trench station, and one above ground (aerial) station.

- Aviation/Century (aerial)
- Florence/La Brea (at grade)
- Florence/West (at grade)
- Crenshaw/Slauson (at grade)
- Crenshaw/King (underground)
- Crenshaw/Exposition (underground with Design Option 6)

All platforms would be fully accessible and comply with the Americans with Disabilities Act (ADA). Outdoor platforms would be well-lighted and include amenities, such as canopies that cover a minimum 30 percent of the platform area, seating, bike lockers, bike racks, trash receptacles, and artwork. The LRT stations would also include signage, safety, and security equipment which would provide real-time information.

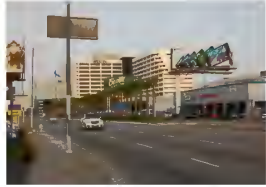
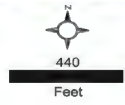
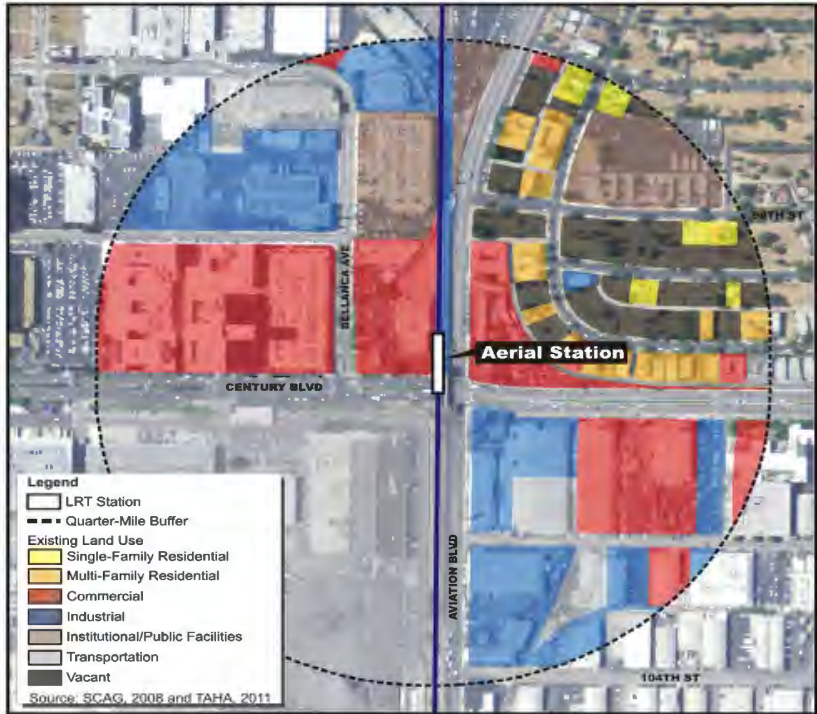
Supporting LRT Facilities. The LPA construction would include installing trackwork, an overhead contact system (OCS) distributing electricity to light rail vehicles (LRVs), traction power substations (TPSS) located about one mile apart, signaling and communication systems, and a vehicle maintenance and operations facility which would operate 24 hours a day, seven days a week.

Systems: The LRT fixed guideway would consist of continuously welded rails. The rails would be embedded in a concrete

slab or installed on crossties and ballasts. The LRT OCS would consist of steel poles installed along the operating right-of-way to support the electrical power line. The poles would be approximately 25-feet tall and would be installed at 90 to 170 feet intervals. The poles would generally be located in the center of the right-of-way, between the two tracks, wherever possible. In some locations, the poles would be located on both sides of the LRT tracks. The overhead electrical power lines are suspended above the LRT tracks. Electricity for LRT operations would be supplied to the OCS from traction power substations (TPSS), located along the proposed LRT alignment. These electrical substations would be enclosed structures located near the LRT alignment. Development of the substations, in some cases, would require an access roadway for maintenance vehicles. Electrical substations would be required for approximately each mile of single or double-track. Communications and signaling (C&S) buildings house train control and communications for LRT operations in a central facility at each station. Each facility is an enclosure located within the station site area, typically adjacent to a station platform. Positioning of a C&S building must be done to provide clearances for maintenance and servicing, and to maintain sight lines for LRT operations.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR
Executive Summary

AVIATION/CENTURY STATION



Aviation and Century, Looking East



Century Looking East, Gateway to LAX



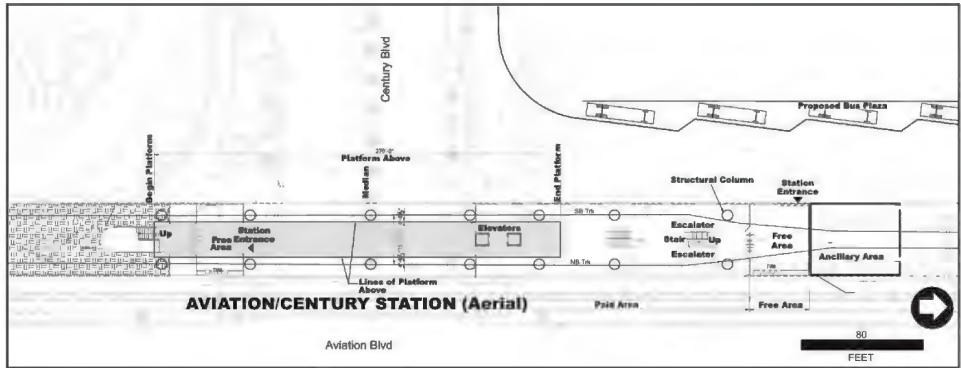
Existing view of Century Boulevard at Aviation Boulevard.



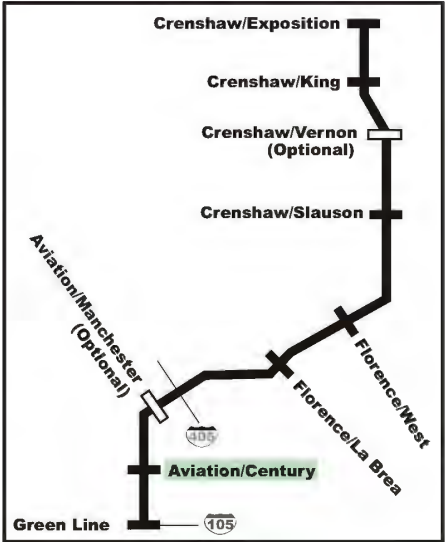
Rendering of the aerial station at Century/Aviation Boulevards.

Aviation/Century Station

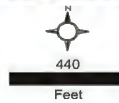
The Aviation/Century Station will serve as a new major gateway between Metro’s regional transit system and LAX. The station will be aerial and designed to accommodate a future connection to the LAX People Mover. A bus transfer plaza will be provided on the west of the station to provide multimodal access to the system.



The above figure shows the location of the Aviation/Century Station located at the aerial crossing over Century Boulevard at Aviation Boulevard.



FLORENCE/LA BREA STATION



Market Street, City of Inglewood



Inglewood Municipal Courthouse



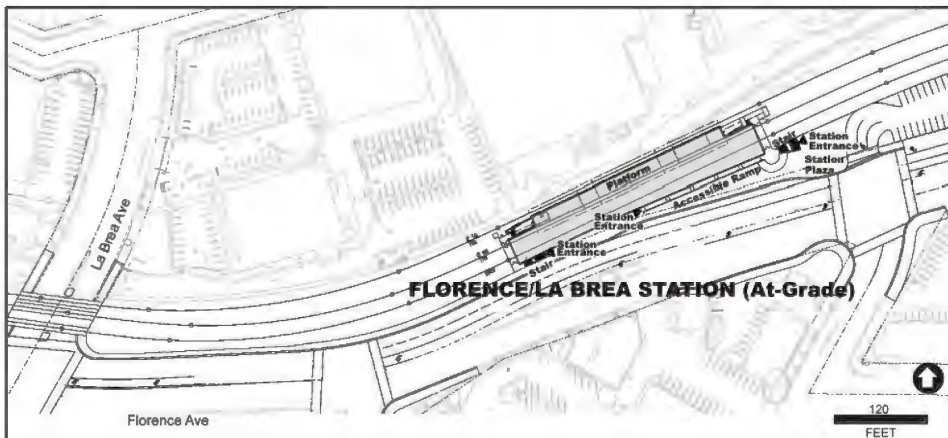
Existing view of the Florence/La Brea Station site.



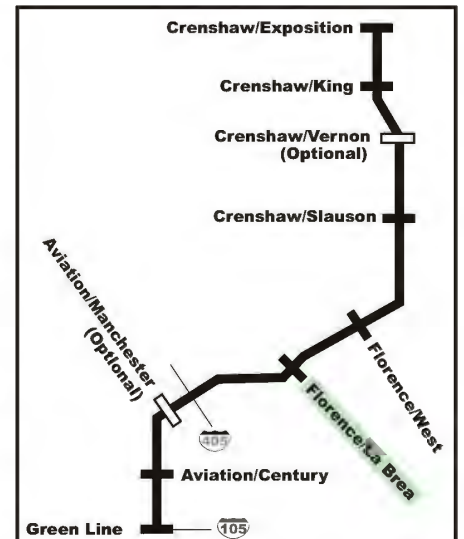
Rendering of the at-grade Florence/La Brea Station east of Market Street along Florence Avenue.

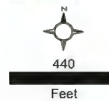
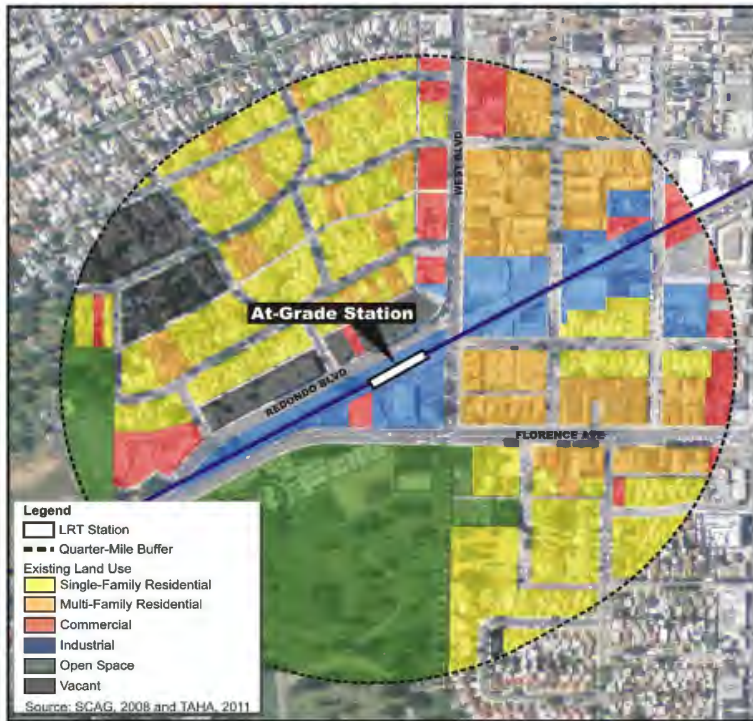
Florence/La Brea Station

The Florence/La Brea Station will provide access to Downtown Inglewood and the City of Inglewood Civic Center. The station would also serve commercial uses along Market Street to the south and residences to the north, east, and west. This station will also include a park-and-ride lot.



The above figure shows the location of the at-grade Florence/La Brea Station located east of Market Street along Florence Avenue.





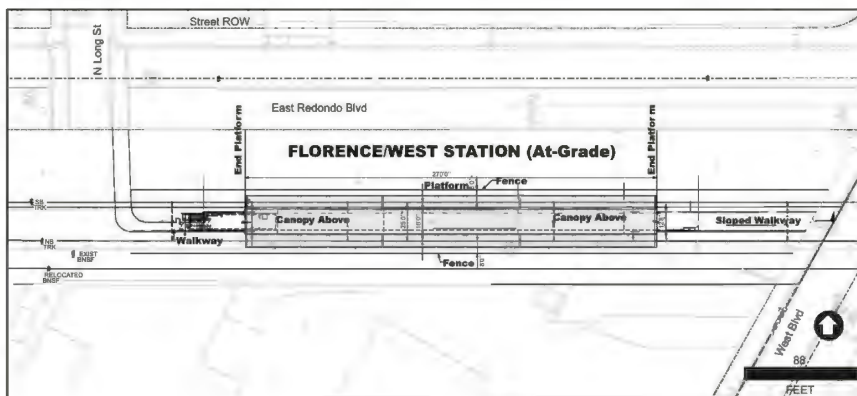
Redondo and West, Looking Southwest



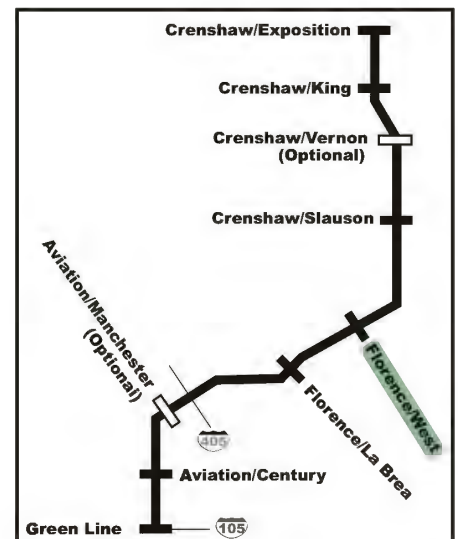
Redondo and West, Looking East

Florence/West Station

The Florence/West Station will provide access to West Boulevard and Florence Avenue, servicing the residential communities of Morningside Park and Hyde Park, as well as Edward Vincent Jr. Park to the west. This station will also include a park-and-ride lot

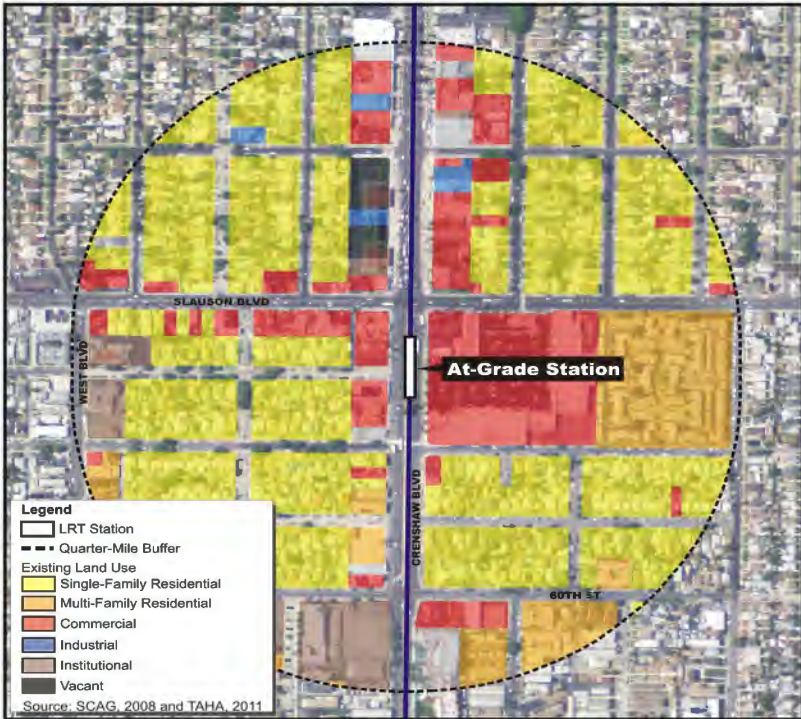


The above figure shows the location of the at-grade Florence/West Station, adjacent to the south of East Redondo Boulevard.



CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR
Executive Summary

CRENSHAW/SLAUSON STATION



Crenshaw Plaza



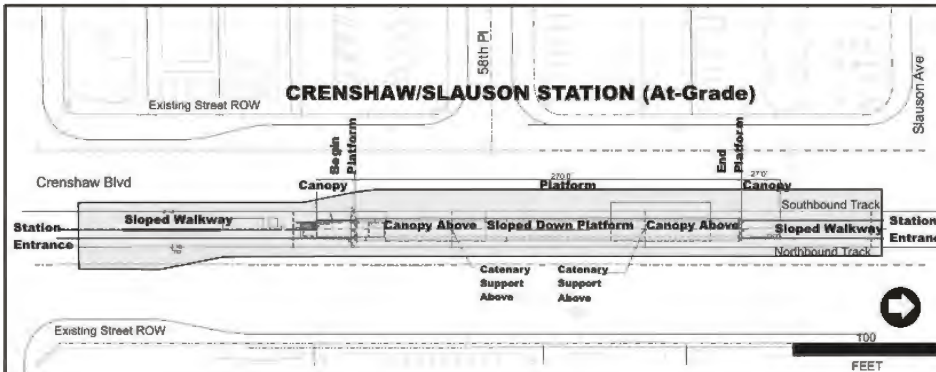
View Park Prep High school



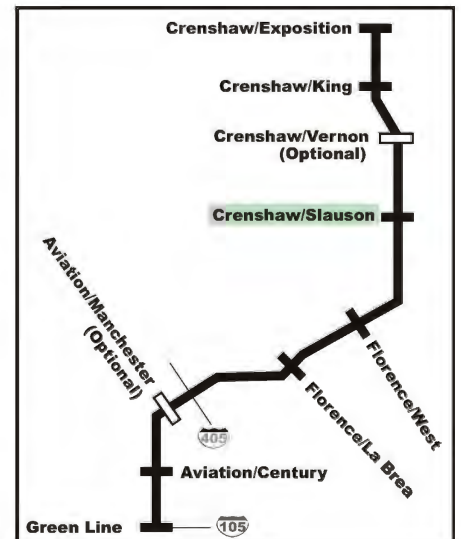
Rendering of Crenshaw/Slauson Station looking south on Crenshaw Boulevard

Crenshaw/Slauson Station

The Crenshaw/Slauson Station will service Crenshaw Boulevard, a major north-south gateway street. This station will be located in the median of Crenshaw Boulevard, south of Slauson Avenue and provide access to east-west bus routes that service Slauson Avenue and provide access to commercial neighborhoods, schools and government offices.



The above figure shows the location of the at-grade Crenshaw/Slauson Station in the median of Crenshaw Boulevard.



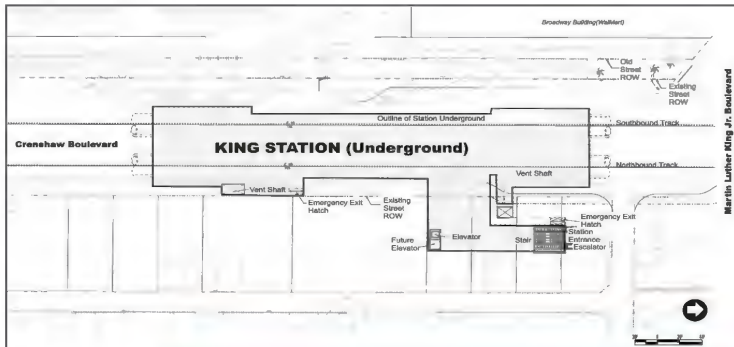
CRENSHAW/KING STATION



Crenshaw and King, Looking Southwest

Crenshaw/King Station

The Crenshaw/King Station will provide access to the Baldwin Hills Crenshaw Plaza shopping center, commercial uses along Crenshaw Boulevard and Martin Luther King Jr. Boulevard, a major east-west street which is well serviced by local buses. This station is in walking distance to Leimert Park Village, and surround residential uses.

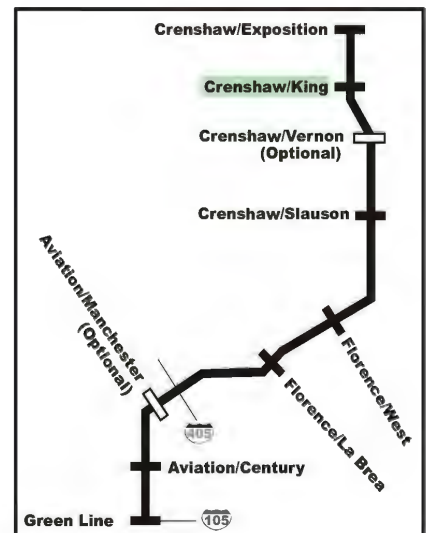


The figure to the left shows the location of the below-grade Crenshaw/King Station and station portal on the southeast corner of the Crenshaw/Martin Luther King Jr. Boulevards intersection.

Rendering of Crenshaw/King Station portal on East side of Crenshaw Boulevard, looking south.



Rendering of Alternate Southwest Portal at Crenshaw/King Station, on the west side of Crenshaw Boulevard, looking north.



CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR
Executive Summary

CRENSHAW/EXPOSITION STATION



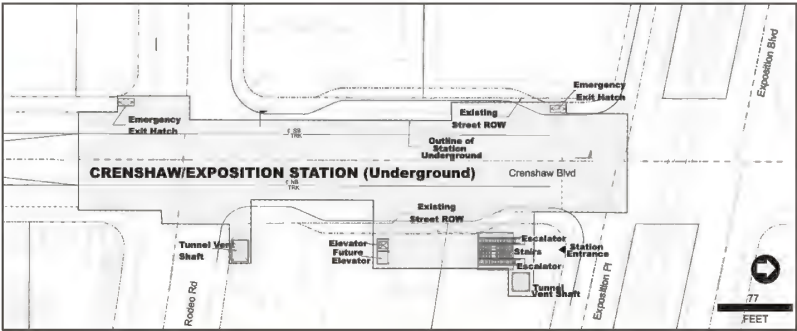
West Angeles Cathedral of God and Christ



Chili Factory

Crenshaw/Exposition Station

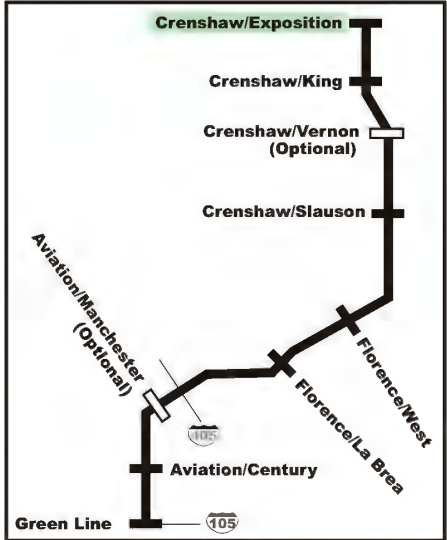
The Crenshaw/Exposition Station is the northern terminus of the Crenshaw/LAX line with the incorporation of Design Option 6. This station will have a park-and-ride lot and allow a pedestrian connection to the Exposition Line that has an adjacent station. This connection with the Exposition Line will provide a connection to Downtown Los Angeles and Exposition Park to the east and Santa Monica and Culver City to the west.



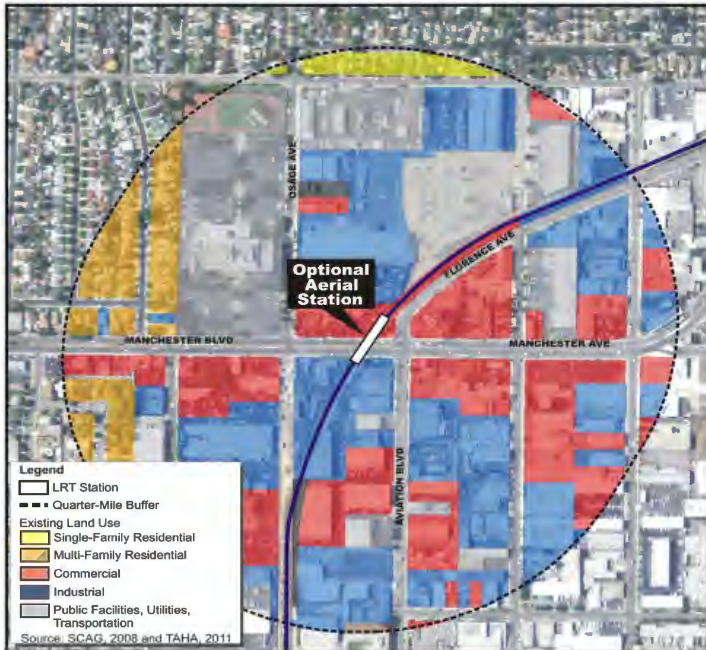
The above figure shows the location of the below-grade Crenshaw/Exposition Station and station portal at the southeast corner of the Crenshaw/Exposition Boulevards intersection.



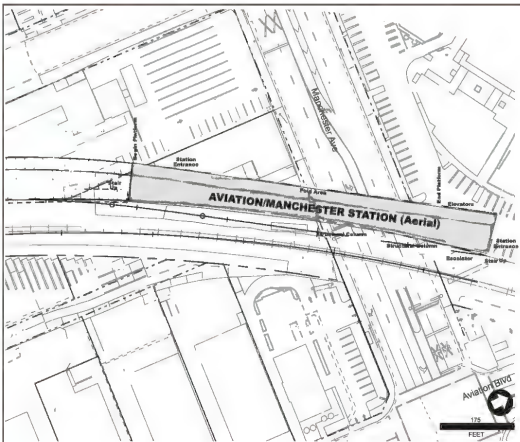
Rendering of portal for the below-grade Crenshaw/Exposition Station that is adjacent to the operation of the at-grade Exposition Line.



OPTIONAL STATION-
 AVIATION/MANCHESTER



Aviation and Manchester, Looking East



The above figure shows the location of the optional Aviation/Manchester Station at the aerial crossing at Manchester Avenue.



Aviation/Manchester Station (Optional)

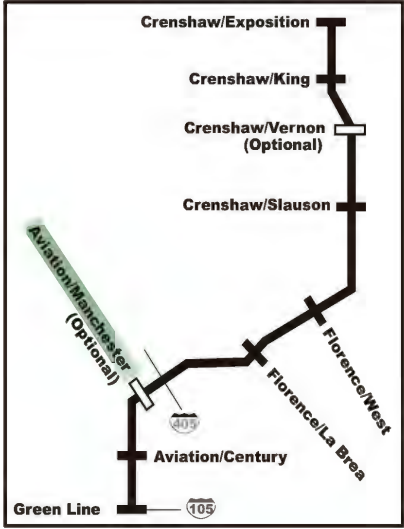
The Optional Aviation/Manchester Station would service the commercial uses along Manchester Avenue, the residential community of Westchester-Playa Del Rey to the north and west, and the industrial areas along Florence Avenue and Aviation Boulevard.

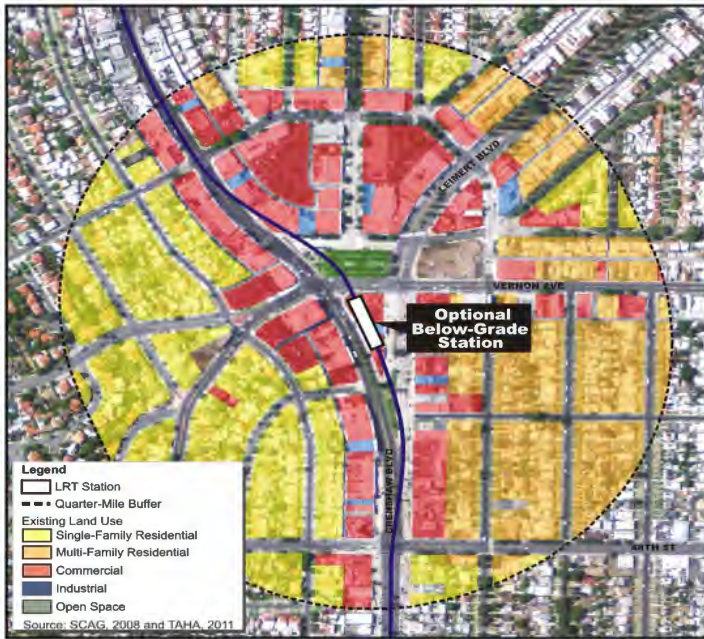


Existing view of the Aviation Boulevard/Manchester Avenue intersection.

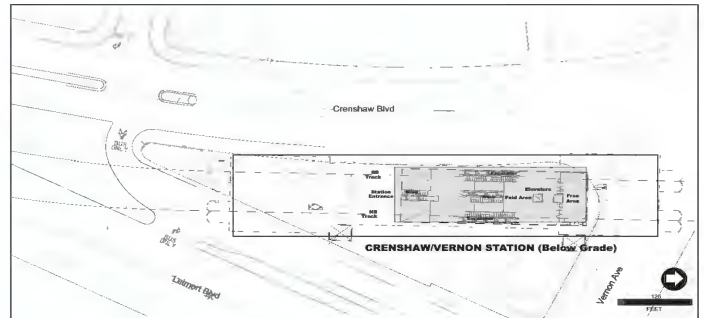


Aerial structure across Manchester Avenue.





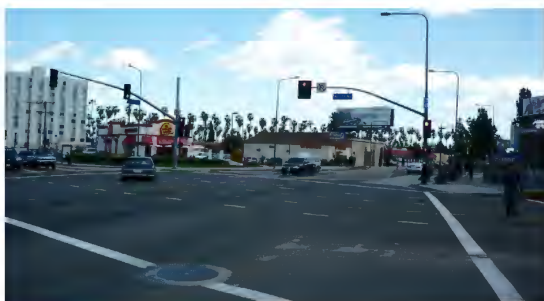
Crenshaw and Vernon, Looking East



The above figure shows the location of the optional below-grade Crenshaw/Vernon Station near the intersection of Crenshaw Boulevard and Vernon Avenue.

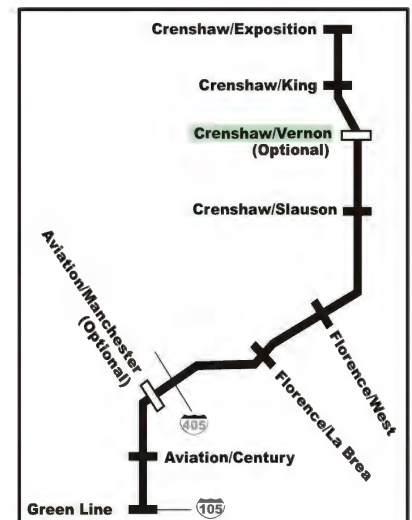
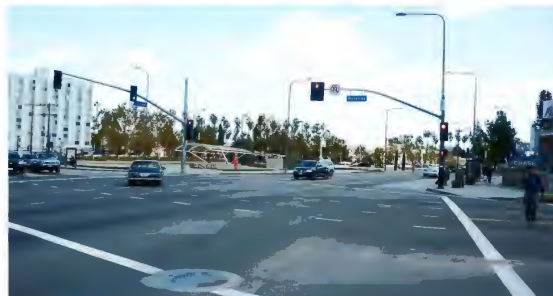
Crenshaw/Vernon Station (Optional)

The Optional Crenshaw/Vernon Station would service the residential neighborhoods of Leimert Park and View Park and the culturally oriented business in Leimert Park Village. The underground station would involve a realignment of the LPA beneath Leimert Park, and the station would be located in the Leimert Park triangle south of Vernon Avenue.



The picture below shows the station portal located in the Leimert Park triangle south of the Crenshaw Boulevard/Vernon Avenue intersection.

The above picture shows the existing view of the Crenshaw Boulevard/Vernon Avenue intersection.



CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

TRAFFIC AND PARKING



The map above shows the 26 study intersections analysed for the Crenshaw/LAX Transit Corridor Project.

ES.4 Traffic and Parking

The potential construction and operation impacts for both traffic and parking impacts summarized below and further described in Chapter 3.0 Transportation Impacts of the FEIS/FEIR.

Construction Impacts. Construction of the LPA would result in traffic impacts at all Harbor Subdivision intersections. Construction of at-grade crossings

would require intermittent off-peak lane reductions and closures of these crossings for up to six months. It is anticipated that these lane reductions and closures would cause traffic to divert to other locations. Most significantly would be the disruption of normal business operations as a result of intermittent site access.

Impacts to local traffic and circulation are expected with construction of the LPA aerial structures. Typical impacts

associated with an aerial structure would include temporary and/or long-term lane closure, temporary removal of parking, and secondary impacts, such as increased traffic, to adjacent streets.

Cut-and-cover construction would prohibit east-west crossings at several designated locations for approximately eight months. These construction period impacts would occur at the station portals, by severely reducing the northbound movements along Crenshaw Boulevard. The number of traffic lanes would be reduced and local circulation would be impacted for extended periods of time. Intermittent lane closures would occur during off-peak and nighttime periods, in order to perform short work adjacent to the longer term work area, such as installing utility laterals, delivering large items, pouring of concrete and similar activities. Occasional lane closures would be required for certain activities such as the placement and removal of overhead concrete form and falsework, installation of tracks across crossings, installation/removal of temporary traffic decking and similar activities. These closures will vary in length and will be planned at times to reduce impacts to traffic wherever possible. The median left-turn lanes would likely be closed during the construction period, prohibiting left

The LPA would result in a savings of approximately 22 minutes saved traveling from the Exposition Line to the Metro GreenLine in 2030.

Table ES.1. Park-and-Ride Stations

Station Locations	Approximate Park-and-Ride Spaces
La Brea	100
West	120
Exposition (Design Option 6)	110

turns for up to six months. Metro would implement a construction period traffic management plan to deal with anticipated impacts related to congestion and parking. This plan would focus on maintaining traffic flow, providing alternate parking locations, maintaining access to local businesses, and minimizing disruptions to general circulation.

Operational Impacts. According to the criteria of the Los Angeles Department of Transportation, the LPA would result in traffic impacts at the Crenshaw Boulevard/54th Street intersection, where the LPA operates at grade. This impact would occur under the 140-, 130-, and 120-second signal timing for the LPA as a result of an at-grade rail crossing that would reduce the operational efficiency of the intersection. There are no feasible mitigation measures to reduce the impacts at this intersection for the 140-, 130-, and 120-second signal cycle lengths. In the locations of the alignment where the LRT will move from below-grade to at-grade, and locations where the intersecting roadways are minor and have existing partial turn restrictions, three intersections are planned for closure. These intersections on Crenshaw Boulevard are 59th Place, Coliseum Place and Rodeo

Place. In addition, the CPUC requested the existing crossing at Brynhurst Avenue be considered for closure. This issue is currently being discussed with CPUC and additional analysis is expected before the final decision is reached.

The LPA would result in the loss of on-street parking. With the removal of the frontage road that parallels Crenshaw Boulevard, the existing bus stops would be relocated. Relocating the existing bus stops would result in the removal of additional on-street parking spaces on Crenshaw Boulevard. Based on advanced conceptual engineering designs, there would be a permanent loss of 142 northbound and 166 southbound on-street parking spaces between 48th Street and 60th Street.

The project is expected to result in only a minor loss of off-street parking under the LPA. This loss would occur in the Harbor Subdivision portion of the transit corridor and be limited to private off-street lots where the land would be used for station development. These private off-street parking lots would be acquired by Metro prior to construction. While the final number of parking spaces provided at any proposed park and ride

lots lot will be determined at a later time, it is assumed that the proposed station parking would provide sufficient capacity to accommodate the anticipated parking demand for the LPA, which is expected to be approximately 100 spaces per station. At other stations along the corridor where off-street parking would not be provided, spillover parking to the adjacent streets may occur, but is likely to be minimal based on projected parking demand at stations with park-and-ride facilities.

ES.5 Evaluation of Project Alignment and Stations

The FEIS/FEIR analyzes the environmental impacts and consequences associated with the implementation of the project alignment and stations. The environmental impacts and consequences associated with the maintenance facility for the project are discussed in Chapter 5.0 of this FEIS/FEIR, where detailed technical information and regulatory requirements used to evaluate the impacts of the proposed project are included in the appendices of this document. Discussion of each environmental topic is generally organized by the following structural headings:

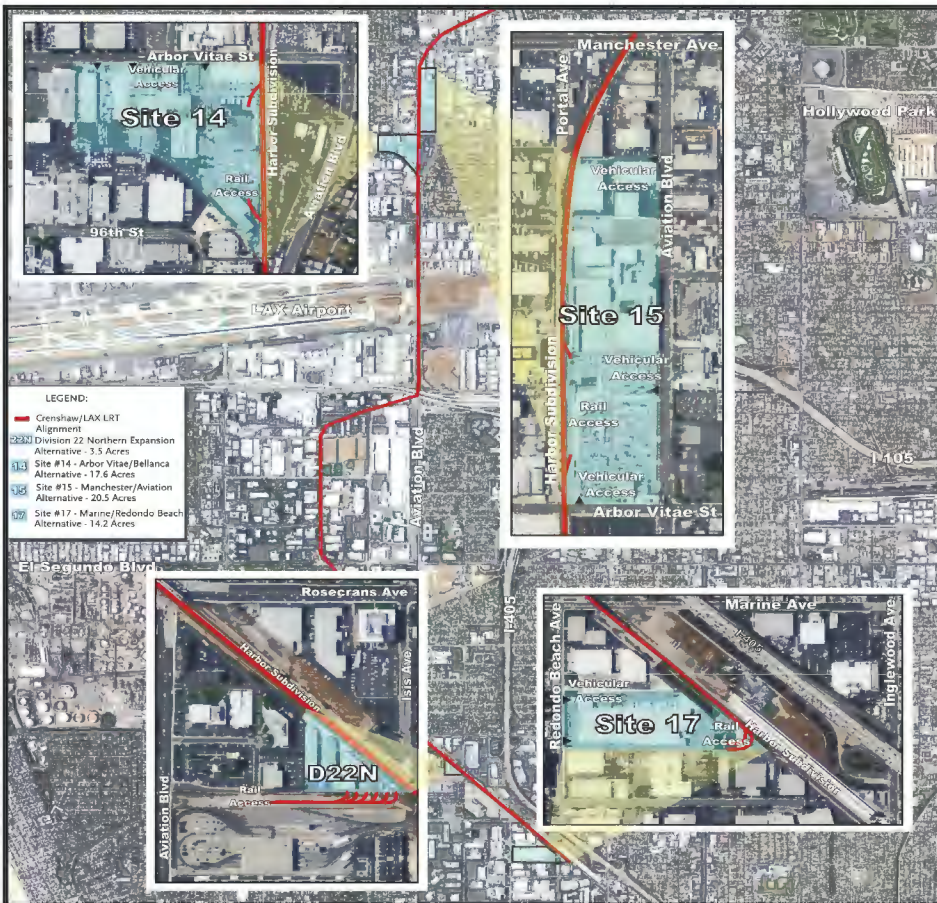
Affected Environment/Existing Conditions describes the existing physical environment and baseline setting wherein the proposed project would occur.

Environmental Impacts/Environmental Consequences describes the anticipated changes that would result from implementation of the proposed project

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

EVALUATION OF MAINTENANCE SITE ALTERNATIVES



Sites of approximately 15 acres or more are desirable. A variety of sites adjacent to corridor routes were reviewed. Four sites were considered for evaluation in the Final EIS/EIR.

and a federal determination of significance is made based on the relative change from the baseline conditions (No-Build Alternative).

Mitigation Measures provides measures that would reduce or eliminate the significant or adverse impacts.

CEQA Determination evaluates the anticipated changes that would result from implementation of the proposed project against CEQA thresholds and a State determination of significance is made based on the relative change from the existing conditions.

Significant Impacts Remaining After Mitigation states the effectiveness of mitigation measures in reducing the impacts identified. A final determination is made to whether an identified impact can be reduced to a less-than-significant level, or remains significant and unavoidable after mitigation. While CEQA requires that only effects that

have a “significant impact” be identified in an Environmental Impact Report, the National Environmental Policy Act (NEPA) requires that all adverse impacts of a proposed project be analyzed. Accordingly, in this joint federal and state environmental document, reference to “significant impacts” is made to fulfill this requirement under CEQA, pursuant to standards of California law. However, regardless of level of significance, all potentially adverse environmental impacts have been analyzed and mitigation proposed where feasible to reduce identified adverse effects.

ES.6 Evaluation of Maintenance Site Alternatives

In the analysis of the additional Maintenance Facility Site Alternatives, a total of 17 sites were identified for consideration. This consideration resulted in the selection of the four maintenance facility sites that were evaluated in the SDEIS/RDEIR. The impacts and consequences of the four maintenance facility site alternatives was analyzed in the same format as the project alignment and stations with the same headings and environmental topic areas. Metro has selected Site 14 as the preferred maintenance site for the Crenshaw/LAX Transit Corridor Project

A Maintenance and Operations Facility is necessary to ensure that the project can continue to function on a daily basis without service interruptions or delay. These activities include the maintenance needed to keep the transit vehicles in peak operating condition, as well as emergency repairs necessary if a vehicle becomes inoperable. Storage is necessary for the vehicles when they are not in operation and are being repaired, or for replacement vehicles that become temporarily inoperable.

at the April 2011 Board of Directors meeting.

ES.7 Section 4(f) Evaluation

Section 4(f) protects publicly-owned land of parks, recreational areas, and wildlife refuges. Section 4(f) also protects historic sites of National, State, or Local significance located on public or private land. The Section 4(f) evaluation includes a description of the proposed action, a list of eligible properties for the National Register of Historic places, and an evaluation of individual parklands or historical resources potentially impacted by the Project. The evaluation of each resource includes information on the location and of the property impacted, impacts of the project on the property, measures to minimize harm, and coordination with the agency having jurisdiction over the resource.

The project would not result in the direct use of any parklands or recreational areas. Three of the four parklands are evaluated for potential constructive use based on the nature of the use and their proximity to the alignment. The Project would not result in the direct use of any Nationally-Eligible property. There are no wildlife or waterfowl refuges in the Project area.

The Alternate Southwest Portal at the Crenshaw/King Station would result in a de minimis use to one Section 4(f) resource, the Broadway building (Walmart) at the Baldwin Hills Crenshaw Plaza. Pursuant to 23 CFR Part 774.3, the FTA has preliminary determined that



Section 4(f) resources within proximity to the Crenshaw/LAX Transit Corridor alignment.

the use of the property, including any measure(s) to minimize harm (such as any avoidance, minimization, mitigation, or enhancement measures) committed to by the applicant, will have a de minimis impact, as defined in §774.17, on the property.

ES.8 Community Outreach

This FEIS/FEIR has been prepared to meet the requirements of NEPA and CEQA. As required by these laws, the environmental review process must be

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

completed before the proposed project can be approved by Metro and the FTA. The goal of both legislative acts is to ensure that local and federal decision-makers are aware of the environmental consequences of a project before making a decision whether to proceed.

One of the first steps in the environmental review process is to publish a Notice of Intent (NOI) to prepare an EIS in the Federal Register. This notice was published on October 2, 2007 (Vol 72, No 190) and provided a brief description of the proposed project and invited comment on issues that would be addressed in the environmental document. A Notice of Preparation (NOP) of an EIR, the CEQA equivalent of the NOI, was also prepared and circulated by the State of California on September 28, 2007. In addition to these notices, various other means were used to invite public comment on the project. Three public scoping workshops were held and letters of invitation were mailed to addresses within a 1/4-mile radius of the Crenshaw/LAX Transit Corridor alignment. Articles and advertisements were published in a number of local newspapers including several non-English announcements and electronic mailings (e-mail blasts) were sent to various stakeholders. Metro also distributed bus pamphlets and placed postings in community and council district newsletters. The 30-day public scoping comment period was extended until November 20, 2007, and all 365 comments that were received on the project were documented and reviewed in the preparation of this document.

Metro initiated a second round of public comments with the release of the DEIS/DEIR. During the 45-day public review period for the DEIS/DEIR, the document was placed in local public libraries and other repository sites, and made available on the Metro website (www.metro.net/crenshaw). Information about public hearings and other ongoing project activities was available via the project hotline at (213) 922-2736. For a detailed description of the environmental review process, and related public involvement opportunities, please refer to Chapters 2.0 Alternatives Considered and 7.0 Community Participation of this FEIS/FEIR.

Public hearing testimony and written comments on the DEIS/DEIR were compiled during the public review period. In the Fall of 2009, the Metro Board considered public comments as part of its selection process for the LPA for the Crenshaw/LAX Transit Corridor. In addition to the foregoing outreach, Metro initiated additional public outreach for a Supplemental Draft Environmental Impact Statement/Recirculated Draft Environmental Impact Report (SDEIS/RDEIR) that was required for the evaluation of new maintenance facility sites. This process is further described in ES. 11 Locally Preferred Alternative Selection Process. Metro also conducted community briefings and presentations with more than 40 different groups in the Crenshaw/LAX Transit Corridor. Introductory briefings were conducted with each of the jurisdictions located within the project corridor. City, county,

COMMUNITY OUTREACH

state and congressional representatives and their staff were invited to participate in working groups during the development of the project. Legislative briefings were conducted with the Cities of Inglewood and Los Angeles. Monthly technical advisory committee meetings were held, in which key stakeholders from the cities' planning, utilities and transportation departments were presented with project updates and input was solicited on advanced design concepts. Metro maintained a contact list of stakeholders located throughout the project area and those located adjacent to the potential maintenance facility sites or who could be directly affected by implementation of the project. Stakeholders were notified of public station planning workshops, focused on urban and streetscape design concepts and station area planning for the proposed stations along the project corridor. Workshop participants were involved in group discussions and were given the opportunity to provide feedback to the project team. In addition to the station planning workshops, stakeholders were invited to participate in a public workshop which initiated the additional analysis for new alternative maintenance



Numerous community meetings have been held as part of the Alternatives evaluation and project formulation process.

facility sites. Responses to public comments received during the circulation period have been incorporated into the FEIS/FEIR. Metro and the FTA cannot initiate the proposed project until the FEIS/FEIR is certified with all necessary mitigation measures and a Mitigation Monitoring Program is adopted. Following certification of the FEIR by the Metro Board, the FTA will consider the FEIS and issue a public Record of Decision (ROD) to complete the final step in the environmental review of the project.

ES.9 Cost and Performance

The cost of a transportation investment falls into two categories: capital costs, and operating and maintenance (O&M) costs. Capital costs are the start-up costs for the project, including the costs of guideway construction, vehicles, and any system facilities necessary before the project can begin to operate. O&M costs are the costs associated with the day-to-day running of the new transportation system. Costs, such as labor, vehicle maintenance, and overall facility maintenance fall into this category. This section summarizes both types of costs and presents the proposed capital financing plan, and evaluates Metro’s ability to afford the alternatives under

Table ES.2. Estimated Cost for Project Elements

Project Design Variations	Estimated Cost
LPA	\$1,589,154,000
Optional Partially-Covered LAX Trench	\$(40,964,000)
Optional Vernon Station (Design Option 5)	\$106,306,000
Optional Manchester Station (Aerial)	\$66,500,000
Optional Cut-and-Cover Crossing at Centinela Ave (Design Option 3)	\$20,599,000
Minimum Operable Segment-Metro Green Line to King Station (MOS-King)	\$1,331,634,000
Minimum Operable Segment-Exposition Station to Century Station (MOS-Century)	\$1,466,304,000
Maintenance Facility (cost for Crenshaw/LAX Project)	\$138,413,730
Project Definition (includes Partially-Covered LAX Trench Design Option	\$1,548,140,000

consideration. The estimated cost in 2010 dollars for the LPA (which includes a Fully-Covered LAX Trench) is \$ 1,589,154,000, compared to \$1,331,634,000 for the MOS from the Metro Green Line to King Station and \$1,466,304,000 for the MOS from Exposition Boulevard to Century Station. The estimated cost in 2010 dollars for the Project Definition, which includes the Partially-Covered LAX Trench Option, is \$1,548,190,000. The additional costs for the LPA design options range from \$20,594,000 to \$106,306,000.

Ridership

Project ridership in year 2030 for the LPA is 12,625 daily boardings, as shown in Table ES.3. The incorporation

of the Crenshaw/Vernon Station into the LPA would increase ridership by adding an additional station at Vernon Avenue which would expand the service along the alignment and provide direct access to Leimert Park Village. Neither the cut-and-cover Grade Separation at Centinela Avenue Design Option nor the Exposition Below-Grade Alignment Design Option would have an effect on overall ridership.

ES.10 Issues Resolved

Based on the outcome of the alternatives analysis and screening process and technical transit planning considerations, in addition to input received during the comment period, a series of issues (listed below) at the time

Table ES.3. Projected Ridership and Vehicle Miles Traveled (VMT) - 2030

Alternative	Daily Boardings	Study Area VMT	Regional VMT
LPA	12,625	5,126,000	454,402,000
No Build	0	5,128,000	454,428,000
DIFFERENCE	+ 12,625	(2,000)	(26,000)

The selection of the Locally Preferred Alternative (LPA) by the Metro Board considered a wide variety of variables including the performance, ridership, costs, benefits, environmental impacts, and public input.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

of the circulation of the DEIS/DEIR were identified. These issues have since been addressed and resolved as the project moved forward through the environmental review process.

Community Acceptance of the TSM and BRT Alternatives as a Credible Mobility Improvement Over Existing Metro Rapid Bus Service as the Long Term Investment

Crenshaw Boulevard currently features Metro Rapid Bus service that supplements local bus service along the corridor. The TSM and BRT Alternatives described in the DEIS/DEIR distinguish small incremental travel time improvements over the existing service. Existing bus service and future options are subject to traffic delays as a portion of these services will have to operate in mixed traffic. The Metro Board has determined that these options are not viable long-term solutions to mobility needs in the Crenshaw/LAX Transit Corridor. The Metro Board of Directors considered engineering and environmental documentation, as well as public comments and concerns to determine that the LRT Alternative is the LPA.



Community Meeting.

Crenshaw/LAX Transit Corridor Connection to the Metro Purple Line/ Metro Purple Line Extension

The Alternatives Analysis process conducted for the Crenshaw/LAX Transit Corridor screened out a LRT connection to the Metro Purple Line due to cost effectiveness considerations. The connection would have to be entirely underground due to the narrow right-of-way on Crenshaw Boulevard, making the option cost prohibitive. If a connection is to be achieved between a Crenshaw/LAX Transit Corridor LRT Alternative and the Metro Purple Line, a Metro feasibility study has found that an LRT connection towards the west, such as the Wilshire Boulevard/La Brea Avenue intersection rather than Crenshaw/Wilshire Boulevards intersection would be the most attractive option. The Metro Board determined that the LPA would be designed in order to facilitate a future connection to the Metro Purple Line, which would include a below-grade connection to Exposition Boulevard. The connection of the LPA to the Metro Purple Line is a separate project and is outside the scope of this FEIS/FEIR.

Crenshaw/LAX Transit Corridor Light Rail Alternative Connection to the Exposition Light Rail

Due to unmitigable traffic impacts, physical constraints, and required right-of-way acquisition, the LPA's at-grade configuration from 39th Street to Exposition Station was determined to be infeasible. The below-grade connection

ISSUES RESOLVED



Exposition Line Connection at the Crenshaw/Exposition Boulevards intersection.

to the Exposition/Crenshaw Station is incorporated into the LPA subject to its financial feasibility.

As defined in the LPA, the ultimate northern terminus (Exposition Station), had an at-grade configuration as the base condition as well as a below-grade design option (Design Option 6) which both underwent further analysis during the ACE phase. All analyzed at-grade configurations were deemed to be infeasible due to a combination of physical constraints, significant environmental impacts, and costs. Consultations with staff from the CPUC (which oversees approval to operate over at-grade crossings), the Community Redevelopment Agency of Los Angeles (which oversees approved development projects in the area), and the Los Angeles Department of Transportation indicate that an at-grade approach would not be acceptable to these agencies. The extent of the impacts for at-grade approach to the Exposition Line also resulted in a higher cost estimate than previous estimates. In addition, there was a substantial amount of support for a below-grade alignment along this segment. It may be necessary to consider either a temporary interim

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary



Potential changes to Leimert Park Village that may be induced by a nearby light rail station have emerged as a local concern.

northern terminus of the Crenshaw/LAX line at the King Station (MOS-King) or a temporary southern terminus at the Century Station (MOS-Century). MOS-King would connect with the Metro Green Line at the southern end but would have potentially degraded service to the Exposition Line at the northern end. MOS-Century would connect with the Metro Exposition Line at the northern end but would have potentially degraded service at the southern end.

Light Rail Station Area Development Potential Consistent with Community Goals and Objectives

One key aspect in obtaining federal funding for transit improvements is whether local communities encourage transit-supporting or transit-oriented land uses. Similarly, California, with impetus from Senate Bill 375, has also focused on transit-supporting land uses as a means to reduce greenhouse gas emissions. Transit-supporting land uses often result in an increase in development density and intensity. The Metro Board must

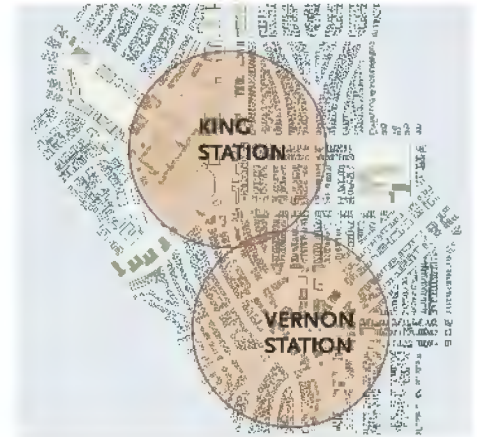
weigh Federal and State mandates against community concerns regarding over-development or changes in the character of corridor communities. Although all proposed station areas are subject to this concern, Leimert Park Village residents in particular have expressed concern about increased development. Station area planning workshops were held to identify the types of development that would be supported by the local community, as well as those that would be consistent with land use policies of the applicable jurisdictions. The results of these workshops have been considered and incorporated into the design of the LPA.

Light Rail Station Location(s) Between Martin Luther King Jr. Boulevard and Vernon Avenue

Related to the issue of transit-supporting land use and induced growth is the pending location of the LRT station between Martin Luther King Jr. Boulevard and Vernon Avenue. The LPA indicates two below-grade LRT stations; a station at Martin Luther King Jr. Boulevard and an optional station at Vernon Avenue, adjacent to Leimert Park. These prospective station locations are approximately 1/2-mile apart. An additional station would increase LRT travel times. As proposed with the Design

What is a grade separation? A crossing of a roadway and a railroad at different elevations, such as a bridge structure carrying the highway over the railroad or vice versa. A grade separation can also be created by placing railroad or transit line in an undercrossing or tunnel to separate it from a roadway or another rail line. Grade separations reduce pedestrian safety related impacts and eliminate impacts to traffic that may be caused by an intersection between the railroad and a roadway.

ISSUES RESOLVED



Station Proximity.

Option, one station would serve the Baldwin Hills Crenshaw Plaza shopping center and the other would serve Leimert Park Village. Community comment indicated support for only stations at the main intersections at Martin Luther King Jr. Boulevard and/or Vernon Avenue and no station in between. The Metro Board has considered whether two stations are necessary and whether the added expense of a Leimert Park Station (near Vernon Avenue) is warranted. Since the alignment is underground at this location, the cost of an additional station is significant and exceeded the project budget. As a result the station was carried forward as an optional station, should funding become available at a later date.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

Light Rail Underground Construction Method Between 39th Street and 48th Street

Two methods of underground construction may be used: cut-and-cover and tunnel boring machines. The cut-and-cover method requires excavation of the underground trench, and then temporarily covering the trench with wooden planks or concrete or metal panels while the subway is constructed beneath. In the section of Crenshaw Boulevard between 39th Street and 48th Street, this construction technique would likely have adverse effects on traffic flow and to the accessibility for local businesses. The tunnel-boring technique would be less disruptive to the community, but requires stations to be located deeper than with the cut-and-cover method. This technique involves an underground machine that creates the subway structure without disrupting the surface. The construction method is envisioned to be determined by the design-build contractor. It is important to note that even if tunnel boring is selected, the segment from Victoria to 60th Street, the Crenshaw/Martin Luther King Station



Cut and Cover Construction Goldline Eastside Extension

and the optional Crenshaw/Vernon Station would continue to be constructed with the cut-and-cover technique. The segments of the alignment between Exposition Boulevard and 39th Street and 39th Street to 48th Street were analyzed as cut-and-cover construction as a worst case scenario.

Light Rail Northern Portal Location and Baldwin Hills Crenshaw Plaza Access

Because the at-grade alignment between Exposition Boulevard and 39th Street was determined to be infeasible, there is no longer a transition portal at 39th Street between the at-grade and below-grade alignments. King Station would be located at the southeast corner of Crenshaw and Martin Luther King Jr. Boulevard, however, an additional portal located at the southwest corner of Crenshaw and Martin Luther King Jr. Boulevard is being carried forward for consideration.

Treatment of Frontage Roads and Parking From Coliseum to Martin Luther King Jr. Boulevard and from 48th Street to Slauson Avenue

In a number of segments along Crenshaw Boulevard, north of Slauson Avenue, the street features one-way frontage roads that are separated from the main traffic lanes of Crenshaw Boulevard by a raised median. To maintain the current number of traffic lanes and to accommodate LRT in semi-exclusive rights-of-way, the frontage roads would be reconfigured or eliminated. The at-grade segment between 48th Street and 60th Street would

ISSUES RESOLVED



Mature Trees In Crenshaw Median. The LRT would remove this landscaping and provide additional landscaping along a widened sidewalk.

require the removal of these frontage roads, however, the sidewalks would be widened and a bikepath would be created. This change has implications for the loss of curb parking along Crenshaw Boulevard and alteration in street landscaping. Access to curb parking would remain, however, parking adjacent to the divider median between Crenshaw Boulevard and the adjacent frontage roads would be removed.

Streetscape and Urban Design Treatments to Mitigate the Loss of Mature Median Trees Between 48th Street and 54th Street.

Since the 1960s (after the termination of the streetcar service on Crenshaw Boulevard), the median of Crenshaw Boulevard has been landscaped from 48th Street to 54th Street. Along this section of the Crenshaw Boulevard median are intervals of mature trees that provide visual relief from the wide Crenshaw Boulevard right-of-way and contribute to aesthetic features of Crenshaw Boulevard as a scenic highway designated by the City of Los Angeles for the section north of Slauson Avenue. LRT improvements

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary



in this section of Crenshaw Boulevard would require the removal of these trees. Mitigation has been incorporated into the design of the LPA to replace the median trees. A landscape maintenance program will be developed in order to determine appropriate treatments.

Pedestrian Safety Improvements at Nearby Schools

A number of private and public schools are either adjacent to or near Crenshaw Boulevard. There is also a private school near the Harbor Subdivision and Centinela Avenue crossing. Based on comments siting community concern for pedestrian safety, numerous pedestrian safety measures have been incorporated into the design of the at-grade crossings along Crenshaw Boulevard. These include, but are not limited to, fencing, warning signs, raised median, and adequate pedestrian queuing areas. Metro also has an on-going safety program that is given to local area schools. Additional

mitigation measures are provided in Section 4.14, Safety and Security of this FEIS/FEIR to ensure pedestrian safety is achieved.

West Boulevard Station Location

Under the LPA, a station is located west of West Boulevard in the City of Inglewood. Community input received from residents in the Hyde Park community favor moving the station eastward toward Crenshaw Boulevard to provide a better connection with transit services on Crenshaw Boulevard and on Florence Avenue potentially providing improved access from communities to the south along Crenshaw Boulevard, such as Morningside Park. Such a location may provide for revitalization along a corridor between Crenshaw Boulevard and West Boulevard. Some community residents in the City of Inglewood favor the continued location of the station west of West Boulevard, where there may also be transit-oriented development opportunities on vacant parking lots and other under-utilized parcels. Design coordination meetings were held to evaluate the two station options and it was



Schools adjacent to the LRT raise the awareness regarding pedestrian safety and measures that must be in place to ensure safe LRT operations and pedestrian paths.

ISSUES RESOLVED



Potential Florence/West Station locations.

determined that the location of a station adjacent to West Boulevard would be most appropriate and could be perceived as a catalyst to change along West Boulevard that has remained dormant for many years.

Connection to Hollywood Park Redevelopment

As discussed above, Metro received comments during meetings in the City of Inglewood that the alignment should be re-directed to serve the City of Inglewood's focus and investment in the Hollywood Park area. Metro reviewed ridership and cost data and concluded that the proposed LPA alignment along the Harbor Subdivision that does not directly connect to the Hollywood Park Redevelopment area remains the most viable and cost-effective option. The LPA alignment serves downtown Inglewood employment with a proposed station near La Brea Avenue. It was determined that the connection from Hollywood Park to the LPA would be achieved through the enhancement of local transit connections and coordination with local developers regarding the provision of shuttle service.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary



Hollywood Park Redevelopment. Within the City of Inglewood, the Hollywood Park area is undergoing a major change with housing and retail developments expected to replace the race track. Transit connections to this emerging area is a major local concern.

Burlington Northern Santa Fe Use of the Harbor Subdivision Railroad

One of the most significant constraints to transit use of the Harbor Subdivision is the issue of whether Burlington Northern Santa Fe (BNSF) will maintain railroad operations within the right-of-way. Maintaining BNSF operations in the Harbor Subdivision would require the relocation of the railroad tracks to allow for LRT operations. The continued use by BNSF also adds to construction cost, as well as a new element to grade crossings, where crossing signals would need to serve both LRT vehicles and railroad operations. Metro has had discussions with BNSF to determine whether the



Harbor Subdivision. Continued freight use of the Harbor Subdivision poses many constraints to the development of LRT transit service within the railroad right-of-way.

abandonment (during construction and/or permanently) of the Crenshaw/LAX Transit Corridor portion of the Harbor Subdivision (Crenshaw Boulevard to Imperial Highway) is possible. These discussions are ongoing and the issue is yet-to-be resolved. It is currently assumed in the FEIS/FEIR that the “third track” is preserved.

Grade Separation at Centinela Avenue

The application of Metro’s Grade Crossing Policy is presented in the conclusions of the FEIS/FEIR. At this stage in the analysis, the assessment concludes that no grade separation is needed at Centinela Avenue and the Harbor Subdivision adjacent to Florence Boulevard. Comments received through the community outreach process indicated community concerns regarding access to Edward Vincent Jr. Park (Centinela Park), a nearby private school and church that may be addressed through a grade separation. The grade of Centinela Avenue affects the operation of vehicles through the intersection. The FEIS/FEIR contains a design option for a grade separation at Centinela Avenue to address these concerns. Such grade separation may require more extensive construction in the short term and may create some impacts to the palm trees adjacent to the additional railroad right-of-way. It was determined that there were no significant traffic impacts associated with an at-grade crossing at Centinela Avenue, and a grade separation is not warranted. The incorporation of a grade separation at Centinela Avenue will be subject to the

ISSUES RESOLVED



View of Centinela Avenue at Florence Ave/Harbor Subdivision. Traffic movements along with pedestrian flows to a nearby Vincent Park, church and school are major local concerns. The crossing is at the top of a slight incline.

final determination of the California Public Utilities Commission (CPUC).

Specific Effects on Landmark Palm Trees Near Centinela Avenue and Mitigation Options

One of the most noticeable visual elements along the Harbor Subdivision in the City of Inglewood is the dual row of palm trees. The inner row of palms mark the southern boundary of Edward Vincent Park. The guideway requirements were thought to require the removal of some portion of the northern most row of palm trees. Metro held focused community urban design and station area meetings in Inglewood to address this issue and design measures to mitigate the visual impact. The design of the LPA will be

The BNSF Railway is an American freight railroad company headquartered in Fort Worth, Texas, and is one of the largest transcontinental freight networks in North America.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary



Landmark Palms along Florence Avenue, near Edward Vincent Jr. Park.

constructed to maintain the majority of these landmark trees.

La Brea Avenue Crossing

The LPA defined an elevated aerial structure and station on the west side of La Brea for the Florence/La Brea Station. During advanced conceptual engineering, preliminary geotechnical investigations indicated an earthquake fault crossing at this location. To address this seismic condition, a below grade crossing was proposed. This refinement provide for greater safety and an easier recovery in case of an earthquake. Additional “fault finding” work was undertaken to confirm the location of the fault so that the station can be placed in a safer location. The



The La Brea Station would be an at-grade station located east of Market Street.

station was ultimately placed to the east and north of the intersection of Market Street and Florence Avenue in an at-grade configuration which is located in a depression at a lower elevation than Florence Avenue. In addition, the change from elevated to below grade crossing at La Brea Avenue results in at-grade crossings at Ivy and Eucalyptus Streets. The LPA had grade-separated crossings at Ivy and Eucalyptus Streets only to provide a transition from the high elevated alignment at La Brea Avenue. These crossings did not require grade separation on their own. These two at-grade crossings have been discussed with CPUC staff. This new trench alignment is less expensive than the base design.

Grade Separation at Manchester

The application of Metro’s Grade Crossing Policy to the Crenshaw/LAX Transit Corridor Project indicates that a grade separation was necessary for the Manchester Boulevard intersection with the Harbor Subdivision.

Role of the Aviation / Manchester Station

Located at the edge of the Westchester district rather than its center, the proposed Aviation / Manchester has one of the lower potentials for ridership growth among the stations along the proposed transit investment. The immediate area lacks a cohesion as it includes a mix of commercial and industrial uses at the border between the Cities of Los Angeles and Inglewood. Curves of the alignment and the potential for an

ISSUES RESOLVED



Grade Crossing at Manchester.

elevated crossing make the location of this station at Manchester difficult. Nonetheless, this location would be the most convenient location for residents of Westchester to access the Crenshaw/LAX Transit Corridor. If there is a station at this location, its siting and configuration would need to balance competing modes of access, including pedestrian access from the residential neighborhood immediately to the north, transit access along Manchester and Florence, and automobile / park-and-ride access from arterials such as Manchester Avenue/ Boulevard, Aviation Boulevard, and La Cienega Boulevard. Designs explored station configurations that straddled Manchester Avenue/Boulevard. Costs were developed for this design option. Also, it was determined that the aerial



Century and Aviation. This location is the gateway to LAX. Metro anticipates that an Automated People Mover system to be constructed operated by the airport will ultimately provide a convenient connection to the airport terminals.

CRENSHAW/LAX TRANSIT CORRIDOR PROJECT FEIS/FEIR

Executive Summary

ISSUES RESOLVED



The Harbor Subdivision Alternatives Analysis explores many alternatives between downtown Los Angeles and the harbor area via South Los Angeles, LAX, and the South Bay. The Crenshaw Corridor may affect or enable future projects along the Harbor Subdivision.

guideway could be re-configured in the future to accommodate a station, albeit at some expense. It was determined that ridership would not be high enough to justify a station at Aviation Boulevard and Manchester Boulevard, and that an aerial station on the Manchester overcrossing would be more likely to enhance connectivity with bus lines.

Metro Harbor Subdivision Alternatives Analysis Study

The long term use of the Harbor Subdivision railroad right-of-way has been studied by Metro. Decisions related to the Crenshaw/LAX Transit Corridor Project will have an effect on future planning for the entire Harbor Subdivision. The

Metro Board, in its deliberation on the Crenshaw/LAX Transit Corridor Project, considered opportunities and limitations that may be imposed on connections to the South Bay and more broadly the entire railroad corridor from downtown Los Angeles to the harbor area. Future planning for the Harbor Subdivision is concentrated in the south project area and planning of the line will not preclude future connections which would enhance future connectivity to the South Bay.

Connection Between Crenshaw/LAX Transit Corridor Project and the Los Angeles International Airport

The lack of a convenient connection to LAX from Metro's rail transit system has been under discussion for many years. The nearest rail transit stop to LAX is the Aviation/Imperial Green Line station (approximately 1.5 miles from the LAX terminals). The Crenshaw/LAX Transit Corridor Project creates the opportunity to bring a transit connection closer to LAX. The FEIS/FEIR proposes a LRT station at Century Boulevard and Aviation Boulevard. Metro's coordination with LAX indicates that an "automated people mover" from the terminal area may be planned to connect to this area at some time in the future. Metro is currently studying an additional connection from the Metro Green Line into the central terminal area as part of a separate project. The Metro Board, as part of the consideration of the LPA, must consider the certainty and time frame of construction of this important connection. The Metro Board is coordinating with

LAWA to ensure a seamless connection between the LPA and the automated people mover. An aerial station at Century Boulevard and Aviation Boulevard has been incorporated into the LPA to facilitate this connection.

Provision of a Maintenance Facility

The LPA requires a new maintenance facility to service the expanded rail vehicle fleets. Adequate size sites are difficult to find. Two candidate sites were initially identified in the DEIS/DEIR. The Metro Board eliminated these sites during the selection of the LPA.

A new maintenance facility site search was conducted and four potential sites were selected adjacent to the Harbor Subdivision. The four potential sites are located in industrial areas; two of which are adjacent to southern end of the LPA alignment between Manchester Avenue and Century Boulevard, and two of which are located further down the Harbor Subdivision, in the City of Redondo Beach. The preferred maintenance facility site is Site 14, located in an industrial area in the City of Los Angeles. The site is south of Arbor Vitae Street and west of Aviation Boulevard.

Summary of Impacts

Table ES.4 on the following page summarizes the potential impacts of the No-Build, the LPA, MOS 1 and 2, the Design Options, and the maintenance facility. Table ES.5 summarizes the impacts and

the mitigation measures for the LPA, MOSs and Design Options. Table ES.6 summarizes the impacts and the mitigation measures for the maintenance facility.

The information presented in these tables is a summary of the analysis contained in this FEIS/FEIR in Chapter 3.0 through 6.0.

Table ES.4. Summary of Impacts

Project Goal/Criteria/Measure	No-Build Alternative	LPA	Maintenance Site #14 - Arbor Vitae/ Bellanca	MOS King - Metro Green Line to King Station	MOS Century - Exposition Station to Century Station	Cut-and-Cover Crossing at Centinela	Optional Below-Grade Station at Vernon	Optional Manchester Station	Alternate Southwest Portal at King Station	Partially-Covered LAX Trench Option
Environmental Effects										
Traffic	○	○*	○	○*	○*	○	○	○	○	○*
Regional Land Use	○	○	○	○	○	○	○	○	○	○
Local Land Use and Development	●	○	○	○	○	○	○	○	○	○
Division of Established Community	○	○	○	○	○	○	○	○	○	○
Consistency with Local Plans/Policies	●	○	○	○	○	○	○	○	○	○
Displacements and Relocation	○	⊙	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Community Cohesion	○	○	○	○	○	○	○	○	○	○
Visual	○	⊙	○	⊙	⊙	⊙	○	○	⊙	⊙
Air Quality (Operational)	○	○	○	○	○	○	○	○	○	○
Noise and Vibration	○	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Ecosystems and Biological Resources	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Geotechnical	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Water	○	○	○	○	○	○	○	○	○	○
Energy	○	○	○	○	○	○	○	○	○	○
Historic, Archaeological, Paleontological	○	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Parklands and Community Facilities	○	⊙	○	○	○	○	○	○	○	⊙
Economic	○	○	●	○	○	○	○	○	○	○
Safety and Security	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Construction (without Air Quality)	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Construction (with Air Quality)	○	⊙	●	⊙	⊙	⊙	⊙	⊙	⊙	⊙
Growth Inducing	○	○	○	○	○	○	○	○	○	○
Cumulative	○	○	○	○	○	○	○	○	○	○
Environmental Justice	●	⊙	○	⊙	⊙	⊙	⊙	⊙	⊙	⊙

- Less Than Adverse Effect, or No Adverse Effect
- ⊙ Less Than Adverse Effect with Implementation of Mitigation Measure
- Potentially Adverse Effect or an Adverse Effect
- ▮ Significant Impact Under CEQA

* Potentially Significant Impacts per criteria of the Los Angeles Department of Transportation at one intersection, depending upon the ultimately selected signal timing.

Table ES.5. Mitigation Measures for the LPA

Environmental Criteria	
Traffic	<p>Impact: There is one location (Crenshaw Boulevard and 54th Street) that is impacted at signal cycle lengths at or less than 140 seconds. There are no changes in street geometry that would reduce impacts. The parking analysis presented above indicates that the LPA would not result in inadequate parking. Impacts associated with spillover parking to the adjacent streets would be minimal. However, parking restrictions and pricing strategies along the adjacent streets are recommended to discourage long-term parking by transit patrons. With implementation of mitigation, no adverse effects are anticipated.</p>
	<p>T1 Metro shall coordinate with the local jurisdictions to designate and identify haul routes for trucks and to establish hours of operation. The selected routes should minimize noise, vibration, and other impacts.</p>
	<p>T2 Metro shall prepare a traffic management plan to facilitate the flow of traffic in and around the construction zone. This traffic management plan shall identify a community liaison and shall include the following measures:</p> <ul style="list-style-type: none"> • Schedule as much of construction-related travel as possible (i.e., deliveries, hauling, and worker trips) during the off-peak hours; • Develop detour routes to facilitate traffic movement through construction zones without significantly increasing cut-through traffic in adjacent residential areas; • Where feasible, temporarily re-stripe roadway to maximize the vehicular capacity at those locations affected by construction closures; • Where feasible, temporarily remove on-street parking to maximize the vehicular capacity at those locations affected by construction closures; • Where feasible, traffic control officers should be at major intersections during peak hours to minimize delays related to construction activities; • Develop and implement an outreach program to inform the general public about the construction process and planned roadway closures; • Develop and implement a program with business owners to minimize impacts to businesses during construction activity, including but not limited, to signage programs.
	<p>T3 Metro shall include in the traffic management plan measures that minimize any potential adverse effects to pedestrian movement in the corridor and to maximize pedestrian safety to the extent feasible.</p>
	<p>T4 Metro shall coordinate with local school districts to disclose potential impacts to school bus routes.</p>
	<p>T5 Project contractors shall provide alternate off-street parking for their employees during the construction period, in order to minimize the loss of parking to adjacent commercial districts.</p>
	<p>T6 Project contractors shall prohibit parking for their employees in adjacent residential neighborhoods, in order to minimize the impacts to nearby residents.</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Land Use and Development	No impact, no mitigation required.
Displacement and Relocation	<p>Impact: The LPA would require the acquisition of up to 97 total parcels, including 59 parcels that would be acquired in full, 31 parcels would be acquired in part, four parcels that would require permanent underground easements, and three parcels that would be used as temporary construction laydown areas (for staging equipment and materials). Two single-family residential properties would be acquired in full to accommodate the at-grade LRT guideway. With implementation of mitigation, no adverse effects are anticipated.</p>
	<p>DRI Metro shall provide relocation assistance and compensation, pursuant to the Uniform Relocation Assistance and Real Property Acquisition Policies Act and the California Relocation Act, to those who are displaced or whose property is acquired as a result of the Crenshaw/LAX Transit Corridor Project.</p>
Community Cohesion	No impact, no mitigation required.
Visual Quality	<p>Impact: The loss of landscaping and vegetation would result in an adverse effect to visual quality to residences along La Colina Drive and the along Crenshaw Boulevard from 60th to 48th Street. With implementation of mitigation, no adverse effects are</p>
	<p>V1 To minimize visual clutter, integrate system components, and reduce the potential for conflicts between the transit system and adjacent communities, design of the system stations and components shall follow the recommendations and principles developed in the project urban design explorations. These principles include, but are not limited to: 1) preserve and enhance the unique cultural identity of each station area and its surrounding community by implementing art and landscaping; and 2) promote a sense of place, safety, and walkability by providing street trees, walkways or sidewalks, lighting, awnings, public art, and/or street furniture. Prior to final design, community input shall also be used to help achieve these guidelines.</p>
	<p>V2 At locations where existing land uses or vegetation is removed and neighboring uses are exposed to new views of the transit system, additional landscaping shall be provided within the right-of-way or in remnant acquisition parcels to create a buffer between the uses, but not necessarily to completely screen uses. Community input from adjacent residences or sensitive land uses shall be incorporated to the greatest extent feasible on the landscaping design elements to be incorporated.</p>
	<p>V3 Mature trees that are removed during construction of the Crenshaw/LAX Transit Corridor Project shall be relocated or replaced with a tree of similar species, or if inappropriate for climate conditions, a species that is low-water use and compliant with the applicable City's landscape ordinance. Replacement should occur in consultation with the Los Angeles Bureau of Street Services Street Tree Division and with the City of Inglewood Department of Public Works.</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Visual Quality	<p>V4 Where practical and appropriate, additional landscaping and enhanced design features will be used to minimize the visual image of the TPSS sites and other ancillary facilities.</p> <p>V5 For the Centinela Avenue cut and cover crossing design option, screening that is consistent with the existing area and Edward Vincent Jr. Park shall be installed on the north side of the trench to the extent feasible to reduce the adverse effects on the south-facing view of the trench.</p> <p>V6 Should the alternate southwest portal at the King Station be selected, the structure for the portal will be designed to compliment the Streamline Moderne style of the Broadway Department Store consistent with the Secretary of Interior standards.</p>
Air Quality	No impact, no mitigation required.
Noise and Vibration	<p>Impact: The LPA would exceed the vibration criteria at 16 locations (Table 4-20). With implementation of mitigation, no adverse effects are anticipated. Warning signal noise would exceed the significance criteria at 57th Street and West Boulevard grade crossing. With implementation of mitigation, no adverse effects are anticipated. Moderate passby noise impacts along La Colina Drive. No feasible mitigation.</p> <p>N1 Warning device noise levels shall not exceed 103 dBA at 50 feet, subject to approval by the California Public Utilities Commission.</p> <p>N2 Further site-specific testing shall be performed during the Final Design where potential for adverse vibration and ground-borne effects has been identified. Where adverse vibration and ground-borne effects are still predicted, the vibration and ground-borne energy transmitted into the ground shall be decreased using design features such as, but not limited to high-resilience fasteners, ballast mats, or floating slab trackbed. Vibration and ground-borne reducing design specifications for the track sections shall be determined in consultation with a qualified vibration scientist or engineer during the design phase. The features shall reduce the vibration levels below the FTA thresholds identified in Table 4-21 and Table 4-22.</p>
Ecosystems/Biological Resources	<p>Impact: The LPA would require the removal or disturbance of mature trees along Crenshaw Boulevard. Removal or disturbance of vegetation during the nesting season could affect the habitat and bird species that are present. With implementation of mitigation, no adverse effects are anticipated.</p> <p>EB1 Two biological surveys shall be conducted, one 15 days prior and a second 72 hours prior to construction that would remove or disturb suitable nesting habitat. The surveys shall be performed by a biologist with experience conducting breeding bird surveys. The biologist shall prepare survey reports documenting the presence or absence of protected native bird in the habitat to be removed and other such habitat within 300 feet of the construction work area (within 500 feet for raptors). If a protected native bird is found, surveys will be continued in order to locate nests. If an active nest is located, construction within 300 feet of the nest (500 feet for raptor nests) will be postponed until the nest is vacated and juveniles have fledged and when there is no evidence of a second attempt at nesting.</p> <p>EB2 If construction of the project requires pruning of native tree species, the pruning shall be performed in a manner that does not cause permanent damage or adversely affect the health of the trees. If construction of the project requires the removal of a native tree</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Ecosystems/Biological Resources	species, the affected tree species shall be relocated or replaced in consultation with appropriate jurisdiction.
Geotechnical/Subsurface/Seismic/ Hazardous Materials	<p>Impact: Potential for ground deformation to have an adverse effect for the LPA. With implementation of mitigation, no adverse effects are anticipated.</p> <p>The LPA is susceptible to liquefaction in two areas. The first area mapped as being susceptible to liquefaction is south of the I-10 Freeway, along the eastern slopes of the Baldwin Hills. The second area is the portion of the LPA along the Harbor Subdivision. Therefore, there would be a potential for liquefaction in these areas. With implementation of mitigation, no adverse effects are anticipated.</p>
	<p>GEO1 A soil mitigation plan shall be prepared after final construction plans are prepared showing the lateral and vertical extent of soil excavation during construction. The soil mitigation plan shall establish soil reuse criteria, establish a sampling plan for stockpiled materials, describe the disposition of materials that do not satisfy the reuse criteria, and specify guidelines for imported materials. The soil mitigation plan shall include a provision that during grading or excavation activities, soil shall be screened for contamination by visual observations and field screening for volatile organic compounds with a photo ionization detector (PID). Soil samples that are suspected of contamination based on field observations and PID readings shall be analyzed for suspected chemicals by a California certified laboratory. If contaminated soil is found, it shall be removed, transported to an approved disposal location, and remediated or disposed of according to guidance identified in proven technologies and remedies of site cleanup prescribed by the Department of Toxic Substances Control.</p>
	<p>GEO2 All hazardous materials, drums, trash, and debris shall be removed and disposed of in accordance with regulatory guidelines set forth by the Department of Toxic Substances Control in Title 22 Division 4.5 of the California Code of Regulations.</p>
	<p>GEO3 A health and safety plan shall be developed for persons with potential exposure to the constituents of concern identified in the preliminary Geotechnical Report contained in Appendix H.</p>
	<p>GEO4 Historical and present site usage along the many areas of the proposed alignment included businesses that stored hazardous materials and/or waste and used USTs, from at least the 1920s to the present. It is possible that areas with soil and/or groundwater impacts may be present that were not identified in this report, or were considered a low potential to adversely impact the subject property. In general, observations should be made during future development activities for features of concern or areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, tanks, soil staining or odorous soils. Further investigation and analysis may be necessary, should such materials be encountered.</p>
<p>GEO5 Best Management Practices (BMPs), identified in Appendix F, required as part of the NPDES permit and application of SCAQMD Rule 403, shall be implemented for the proposed project to not only reduce potential soil erosion, but also to maintain soil stability and integrity during grading, excavation, below grade construction, and installation of foundations for aerial structures, and maintenance and operations facilities. BMPs would comply with applicable Uniform Building Codes and</p>	

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Geotechnical/Subsurface/Seismic/ Hazardous Materials	<p>include, but are not limited to, scheduling excavation and grading activities during dry weather, covering stockpiles of excavated soils with tarps or plastic sheeting, and debris traps on drains.</p> <p>GEO6 The design of the project shall adhere to the design specifications of the geotechnical study for maintaining structural integrity under static and seismic loading and operational demands.</p>
Water Resources	<p>Impact: The below-grade segment for the LPA, which is approximately 50 feet below the ground surface, is located within a liquefaction zone that spans along Crenshaw Boulevard from the I-10 Freeway in the north to Vernon Avenue in the south. Areas of liquefaction are known to have high water tables which add to the instability of the soil. Groundwater levels at Exposition Boulevard are as high as 16 feet below ground surface and gradually decline to more than 75 feet at Vernon Avenue. Dewatering activity would likely be required along this segment. With implementation of mitigation, no adverse effects are anticipated.</p> <p>WQ1 During project construction and operation, remediation should be required at maintenance facilities and vehicle storage areas, where a potential exists for grease and oil contamination to flow into storm drains. Various types of ditch structures, including grease traps, sediment traps, detention basins, and/or temporary dikes, may be used to control possible pollutants. These facilities shall be constructed pursuant to guidance published in Section 402 of the Clean Water Act (CWA) and shall follow the most current guidance within the NPDES permit program.</p> <p>WQ2 The flood capacity of existing drainage or water conveyance features within the project study corridor shall not be reduced in a way that causes ponding or flooding during storm events. A drainage control plan shall be developed during project design to ensure that drainage is properly conveyed from the study area and does not induce ponding on adjacent properties.</p> <p>WQ3 A dewatering permit shall be required if groundwater is encountered during construction. The proposed project is located in an urbanized area where potential groundwater contamination may exist. If contaminated groundwater is encountered during construction, the contractor shall stop work in the vicinity of the suspect find, cordon off the area, and contact the appropriate hazardous waste coordinator and maintenance hazardous spill coordinator at Metro and immediately notify the Certified Unified Program Agencies (City of Los Angeles Fire Department, County of Los Angeles Fire Department, and Los Angeles Regional Water Quality Control Board or RWQCB) responsible for hazardous materials or waste incidents. Coordination with the Los Angeles RWQCB shall be initiated immediately to develop an investigation plan and remediation plan for expedited protection of public health and environment. Contaminated groundwater is prohibited from being discharged to the storm drain system. The contractor shall properly treat or dispose of any hazardous or toxic materials, according to local, state, and federal regulations).</p> <p>WQ4 The study area currently drains indirectly to Ballona Creek and Dominguez Creek through the Municipal Separate Storm Sewer System (MS4). Treatment control BMPs shall be incorporated into the project design. The project shall consider placing the treatment BMPs in series or in a complimentary system to increase the control of pollutants to the maximum extent practicable. The systems shall be</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Water Resources	<p>designed to efficiently and effectively handle and treat dry and wet weather flows to the maximum extent practicable. A Standard Urban Stormwater Mitigation Plan (SUSMP) and appropriate drainage control plan shall be implemented to select and place appropriate permanent treatment BMPs.</p> <p>WQ5 During construction of the project, on-site integrated management strategies that employ green infrastructure strategies to capture runoff and remove pollutants shall be used. Green infrastructure strategies combine a variety of physical, chemical, and biological processes that focus on conveying runoff to bioretention areas, swales, or vegetated open spaces.</p>
Energy	No impact, no mitigation required.
Historic, Archaeological, and Paleontological Resources	<p>Impact: Discovery of unknown archaeological or paleontological resources is possible during excavation activities. With implementation of mitigation, no adverse effects are anticipated.</p>
	<p>CR1 Treatment of Undiscovered Archaeological Resources</p> <p>Construction personnel shall be informed of the potential for encountering significant archaeological and paleontological resources along Crenshaw Boulevard in the vicinity of the Crenshaw/King Station, and instructed in the identification of fossils and other potential resources. All construction personnel shall be informed of the need to stop work on the project site until a qualified archaeologist or paleontologist has been provided the opportunity to assess the significance of the find and implement appropriate measures to protect or scientifically remove the find. Monitors with Native American qualifications shall be used at a minimum for construction within a ½ mile of the Crenshaw/King Station. If human remains are encountered during construction, all work shall cease in the area of potential affect and the Los Angeles County Coroner’s Office shall be contacted pursuant to procedures set forth in Public Resources Code Section 5097 et seq. and Health and Safety Code in Sections 7050.5, 7051, and 7054 with respect to treatment and removal, Native American involvement, burial treatment, and re-burial, if necessary.</p> <p>A detailed 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 Monitoring Plan 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:</p> <ul style="list-style-type: none"> • Worker training • Archaeological monitoring • The scientific evaluation and mitigation of archaeological discoveries • Native American participation, as needed

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
<p>Historic, Archaeological, and Paleontological Resources</p>	<ul style="list-style-type: none"> • Appropriate treatment of human remains, if applicable • Reporting of monitoring and mitigation results <p>CR2 Paleontological Monitoring</p> <p>A qualified paleontologist shall produce a Paleontological Monitoring and Mitigation Plan (PMMP) for the proposed project and supervise monitoring of construction excavations. Paleontological resource monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The monitor shall have authority to temporarily divert grading away from exposed fossils to professionally and efficiently recover the fossil specimens and collect associated data. All efforts to avoid delays in project schedules shall be made.</p> <p>All project-related ground disturbances that could potentially affect previously undisturbed Quaternary older alluvial deposits shall be monitored by a qualified paleontological monitor under the supervision of a qualified paleontologist on a full-time basis because these geologic units are 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 shall 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 shall be determined by the qualified paleontologist upon review of project grading plans.</p> <p>Paleontological monitors shall be equipped with the necessary tools for the rapid removal of fossils and retrieval of associated data to prevent construction delays. This equipment shall include handheld global positioning system (GPS) receivers, digital cameras and cell phones, as well as a tool kit containing specimen containers and matrix sampling bags, field labels, field tools (awls, hammers, chisels, shovels, etc.) and plaster kits. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis.</p> <p>Any collected fossils shall be transported to a paleontological laboratory for processing where they will 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).</p> <p>The qualified paleontologist shall prepare a final monitoring and mitigation report to be filed, at a minimum with Metro and the repository. The final report shall 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.</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Parklands and Community Facilities	Impact: Potential effect to flow of pedestrians near Faithful Central Bible Church and La Brea Station. With implementation of mitigation, no adverse effect would occur.
	PCF-1 The project shall incorporate Metro Design Criteria standards for sidewalks to ensure the safe flow of pedestrians. Metro shall coordinate with the City of Inglewood Public
Economic and Fiscal Impacts	No impact, no mitigation required.
Safety and Security	No impact, mitigation included to ensure impacts remain less than adverse..
	SS1 All stations and parking facilities shall be equipped with monitoring equipment and/or be monitored by Metro security personnel on a regular basis.
	SS2 Metro shall implement a security plan for LRT operations that shall include both in-car and station surveillance by Metro security or other local jurisdiction security personnel and establish well lit pedestrian station and parking areas that minimize shadows and provide visibility for security personnel to monitor activity.
	SS3 All stations shall be lit to a standard of no less than two footcandles to minimize shadows and ensure that all pedestrian pathways leading to/from sidewalks and parking facilities shall be well illuminated.
	SS4 Metro shall coordinate and consult with the LAPD, the LA County Sheriff's Department, the Inglewood Police Department, and the LAX Police to develop safety and security plans for the alignment, parking facilities, and station areas which satisfy the requirements necessary for the appropriate policing jurisdiction to effectively patrol the area.
	SS5 The station design shall be undertaken to avoid obstructions to visibility or observation and discrete locations favorable to crime; pedestrian access to at-grade, below-grade, and above-grade station entrances/exits shall be accessible at ground-level with clear sight lines.
	SS6 Metro shall implement appropriate measures to ensure pedestrian crossing safety at all locations with adjacent schools, churches, and high pedestrian areas as determined by the CPUC.
	SS7 Metro shall conduct a Hazard Analysis before the start of Final Design, using current safety analysis as a reference. The Hazard Analysis shall determine a design basis for warning devices as required by the California Public Utilities Commission.
	SS8 Vehicular and pedestrian warning measures, such as signage, shall be provided along the length of the platforms of the LRT Stations. Gates shall be provided at pedestrian crossings of the LRT and/or BNSF tracks within the Harbor Subdivision. These markings will be provided to alert motorists and pedestrians to potential conflict in the area.
SS9 To discourage crossing the alignment and enhance safety, such as near the Faithful Central Bible Church, Metro shall provide fencing along either side of the alignment, between the parking lot and church buildings and ensure adequate pedestrian safety devices at designated crossings.	

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Construction Impacts	<p>Impact: Temporary construction lighting may potentially affect residential areas by exposing residents to glare from unshielded light sources or by increasing ambient nighttime light levels. With implementation of mitigation, no adverse effects would occur.</p> <p>Visual quality may be altered from the stockpiling of materials at construction staging areas. With implementation of mitigation, no adverse effects would occur.</p> <p>The LPA would generate fugitive dust and equipment emissions from excavation activity and NOX emissions associated with the transport of excavated material. With implementation of mitigation, no adverse effects would occur. Under NEPA, Significant under CEQA.</p> <p>Construction noise levels would exceed existing ambient noise levels by at least 5 dBA at nearby land uses. With implementation of mitigation, no adverse effects would occur.</p> <p>Potential for encountering hazardous materials during grading and excavation within the Harbor Subdivision. It is possible that contaminated soil and/or groundwater may be encountered in the areas of the proposed at-grade, below-grade, and aerial alignments along the entire section. With implementation of mitigation, no adverse effects would occur.</p> <p>Disruption from cut-and-cover construction activities would be more extensive, the duration of reduced number of roadway travel lanes, road closures, traffic diversion, and modified access to business properties, and loss of on-street parking would be greater. These effects would further decrease business visibility and access to businesses by suppliers and customers, and would result in an adverse effect on corridor businesses and commercial property owners. With implementation of mitigation, no adverse effects would occur.</p>
	<p>CON1 Visually obtrusive erosion control devices, such as silt fences, plastic ground cover, and straw bales should be removed as soon as the area is stabilized.</p>
	<p>CON2 Stockpile areas should be located in less visibly sensitive areas and, whenever possible, not be visible from the road or to residents and businesses.</p>
	<p>CON3 During nighttime construction activities, lighting shall be aimed at the downward and away from residential and other sensitive uses adjacent to the alignment and stations.</p>
	<p>CON4 Water or a stabilizing agent shall be applied to exposed surfaces in sufficient quantity to prevent generation of dust plumes.</p>
	<p>CON5 Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday.</p>
	<p>CON6 Contractors shall be required to utilize at least one of the measures set forth in South Coast Air Quality Management District Rule 403 section (d)(5) to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site.</p>

Table ES.5. Mitigation Measures for the LPA (cotinued)

Environmental Criteria	
Construction Impacts	CON7 All haul trucks hauling soil, sand, and other loose materials shall maintain at least 6 inches of freeboard in accordance with California Vehicle Code Section 23114.
	CON8 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
	CON9 Traffic speeds on unpaved roads shall be limited to 15 mph.
	CON10 Operations on unpaved surfaces shall be suspended when winds exceed 25 mph.
	CON11 Heavy equipment operations shall be suspended during first and second stage smog alerts.
	CON12 On-site stockpiles of debris or rusty materials shall be covered at all times when not being used. On-site stockpiles of dirt shall be or watered at least two times per day or covered at all times when not being used.
	CON13 Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.
	CON14 Contractors shall utilize electricity from power poles rather than temporary diesel or gasoline generators, as feasible.
	CON15 Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.
	CON16 Construction parking shall be configured to minimize traffic interference.
	CON17 Construction activity that affects traffic flow on the arterial system shall be limited to off-peak hours, as feasible.
	CON18 Construction staging and vehicle parking, including workers' vehicles, shall be prohibited on streets adjacent to sensitive receptors such as schools, daycare centers, senior facilities, and hospitals.
	CON19 The construction process shall utilize an on-site rock crushing facility with water control to suppress dust, when feasible.
	CON20 Portable generators shall be low-emitting and use ultra low sulfur diesel (<15 parts per million) or gasoline.
	CON21 Construction equipment shall use a combination of low sulfur diesel (<15 parts per million) and exhaust emission controls.
	CON22 The construction process shall use equipment having the minimum practical engine size (i.e., lowest appropriate horsepower rating for the intended job).
	CON23 Contractors shall be prohibited from tampering with construction equipment to increase horsepower or defeat emission control devices.

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Construction Impacts	<p>CON24 Metro shall designate a person to ensure the implementation of air quality mitigation measures through direct inspections, records reviews, and complaint investigations.</p> <p>CON25 The construction contractor shall develop a Noise and Vibration Control Plan demonstrating how to achieve the more restrictive of the Metro Design Criteria noise limits and the noise limits of the city noise control ordinance. The Plan should also show how to achieve FTA vibration limits. The Plan shall include measurements of existing conditions, a list of the major pieces of construction equipment that will be used, and predictions of the noise and vibration levels at the closest noise-sensitive receptors (residences, hotels, schools, churches, temples, and similar facilities). The Noise and Vibration Control Plan will need to be approved by Metro prior to initiating construction. Where the construction cannot be performed in accordance with the requirements of Metro, the contractor shall investigate alternative construction measures that would result in lower noise and vibration levels. The contractor shall conduct monitoring to demonstrate compliance with contract noise limits. In addition, the contractor shall coordinate with the View Park Preparatory Accelerated and St. John the Evangelist School administrators to avoid disruptive activities during school hours.</p> <p>CON26 The construction contractor shall utilize a combination of the following options of best management practices for noise abatement to comply with the Metro Design Criteria:</p> <ul style="list-style-type: none"> • The contractor shall utilize specialty equipment equipped with enclosed engines and/or high-performance mufflers as commercially available. • The contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible. • The contractor shall limit unnecessary idling of equipment. • The contractor shall install temporary noise barriers as determined by the Noise Control Plan. • The contractor shall limit unnecessary idling of equipment. • The contractor shall install temporary noise barriers as determined by the Noise Control Plan. • The contractor shall reroute construction-related truck traffic away from residential streets to the extent permitted by the relevant municipality. • The contractor shall avoid impact pile driving near noise-sensitive receptors (residences, hotels, schools, churches, temples, and similar facilities) where possible. Where geological conditions permit their use, drilled piles or a vibratory pile driver is generally quieter. <p>CON27 Soil Mitigation Plan – A soil mitigation plan should be prepared after final construction plans are prepared showing the lateral and vertical extent of soil excavation during construction. The soil mitigation plan should establish soil reuse criteria, establish a sampling plan for stockpiled materials, describe the disposition of materials that do not satisfy the reuse criteria, and specify guidelines for imported materials. The soil mitigation plan should include a provision that during grading or excavation activities, soil should be screened for contamination by visual observations and field screening for volatile organic compounds with a PID. Soil samples that are suspected of contamination based on field observations and PID readings shall be analyzed for suspected chemicals by a California certified laboratory. If hazardous soil is found, it shall be removed, transported to an</p>

Table ES.5. Mitigation Measures for the LPA (continued)

Environmental Criteria	
Construction Impacts	<p>approved disposal location, and remediated or disposed according to state and federal laws. Other contaminated but nonhazardous soil may be reused on site applications such as bridge embankments or underneath paved areas provided the public is protected from coming into contact with the contaminated soils and the specific use is agreed to by the California Department of Toxic Substances Control (DTSC).</p> <p>CON28 Nearby business owners and commercial property owners shall be notified of the schedule for specific planned construction activities, changes in traffic flow, and required short-term modifications to property access.</p> <p>CON29 General notices shall be provided to local government, transit agencies, major institutions, and other organizations of the schedule for planned construction activities.</p> <p>CON30 Methods shall be developed by which business owners can convey their concerns about construction activities and the effectiveness of mitigation measures during the construction period so activities can be modified to reduce adverse effects.</p> <p>CON31 Advance notice shall be provided to affected property owners if utilities would be disrupted for short periods of time and scheduled major utility shut-offs during low-use periods of the day.</p> <p>CON32 Construction activities shall be planned to minimize effects on community gatherings, special celebrations, or other similar events.</p> <p>CON33 Public information campaigns shall be conducted to encourage patronage of corridor businesses during the construction period.</p> <p>CON34 Metro shall ensure that all businesses and service providers are provided with adequate access during construction. Where there is a significant LEP population, signage shall be provided in various languages (as appropriate).</p>
Growth-Inducing Impacts	No impact, no mitigation required.
Cumulative Impact	No impact, no mitigation required.
Environmental Justice	No impact, no mitigation required.

Table ES.6. Mitigation Measures for the Maintenance Facility

Environmental Criteria	
Traffic	None Required
Land Use and Development	None Required
Displacements and Relocation of Existing Uses	<p>S-DR1 Metro shall provide relocation assistance and compensation, per the Uniform Relocation Assistance and Real Property Acquisition Policies Act and the California Relocation Act, to those who are displaced or whose property is acquired as a result of a maintenance facility for the Crenshaw/LAX Light Transit Corridor Project.</p> <p>S-DR2 Metro shall set up a business relocation process to oversee the relocation needs of the businesses that would be displaced as a result of a maintenance facility for the Crenshaw/LAX Transit Corridor Project. In addition, Metro shall attempt to minimize disruption to overall production of businesses that are connected with airport activities by relocating in as close proximity to LAX as possible.</p> <p>S-DR3 Metro shall work with Los Angeles World Airports (LAWA) to ensure that potential displacement and relocation of rental car businesses are compatible with the long term implementation of the LAX Master Plan consolidated rental car center.</p>
Community and Neighborhood Impacts	None Required
Visual Quality	None Required
Air Quality	None Required
Noise and Vibration	None Required
Ecosystems/Biological Resources	None Required
Geotechnical/Subsurface/Seismic/Hazardous Materials	<p>S-GEO1 All hazardous materials, drums, trash, and debris shall be removed and disposed of in accordance with regulatory guidelines.</p> <p>S-GEO2 A health and safety plan shall be developed for persons with potential exposure to the constituents of concern, prior to construction of the Project..</p> <p>S-GEO3 Historical and present site usage along the many areas of the proposed alignment included businesses that stored hazardous materials and/or waste and used underground storage tanks, from at least the 1920s to the present. It is possible that areas with soil and/or groundwater impacts may be present that were not identified in this report, or were considered a low potential to adversely impact the subject property. In general, observations should be made during any future development activities for features of concern or areas of possible contamination such as, but not limited to, the presence of underground facilities, buried debris, waste drums, tanks, soil staining, or odorous soils. Phase II assessments shall be conducted for the properties within the selected alternative site and any contaminated sites shall be remediated to a level suitable for industrial development.</p>

Table ES.6. Mitigation Measures for the Maintenance Facility (continued)

Environmental Criteria	
	<p>S-GEO4 There is a potential for lead based paint and asbestos containing building materials to be present at the maintenance facility sites. An asbestos survey and lead based paint survey shall be conducted on all sites where on-site structures would be demolished or significantly renovated.</p> <p>S-GEO5 Best Management Practices (BMPs), required as part of the National Pollutant Discharge Elimination System (NPDES) permit program and application of the South Coast Air Quality Management District (SCAQMD) Rule 403, shall be implemented for any of the selected site alternatives to not only reduce potential soil erosion, but also to maintain soil stability and integrity during grading, excavation, below-grade construction, and the installation of foundations for aerial structures, and maintenance and operations facilities. BMPs would comply with applicable Uniform Building Codes and would include, but not be limited to, scheduling excavation and grading activities during dry weather, covering stockpiles of excavated soils with tarps or plastic sheeting, and debris traps on drains.</p>
Water Resources	<p>S-WQ1 During project construction and operation, remediation should be required at maintenance facilities and vehicle storage areas, where a potential exists for grease and oil contamination to flow into storm drains. Various types of ditch structures, including grease traps, sediment traps, detention basins, and/or temporary dikes, may be used to control possible pollutants. These facilities shall be constructed pursuant to guidance published in Section 402 of the Clean Water Act (CWA) and shall follow the most current guidance within the NPDES permit program for any of the site alternatives.</p> <p>S-WQ2 The flood capacity of existing drainage or water conveyance features within the project study corridor shall not be reduced in a way that causes ponding or flooding during storm events. A drainage control plan shall be developed during project design to ensure that drainage is properly conveyed from the study area and does not induce ponding on adjacent properties.</p> <p>S-WQ3 A dewatering permit shall be required if groundwater is encountered during construction. The proposed project is located in an urbanized area where potential groundwater contamination may exist. If contaminated groundwater is encountered during construction, the contractor shall stop work in the vicinity of the suspect find, cordon off the area, and contact the appropriate hazardous waste coordinator and maintenance hazardous spill coordinator at Metro and immediately notify the Certified Unified Program Agencies (City of Los Angeles Fire Department, County of Los Angeles Fire Department, and Los Angeles Regional Water Quality Control Board or RWQCB) responsible for hazardous materials or waste incidents. Coordination with the Los Angeles RWQCB shall be initiated immediately to develop an investigation plan and remediation plan for expedited protection of public health and environment. Contaminated groundwater is prohibited from being discharged to the storm drain system. The contractor shall properly treat or dispose of any hazardous or toxic materials, according to local, state, and federal regulations).</p> <p>S-WQ4 The study area currently drains indirectly to Ballona Creek and Dominguez Creek through the Municipal Separate Storm Sewer System (MS4). Treatment control BMPs shall be incorporated into the project design. The project shall consider placing the treatment BMPs in series or in a complimentary system to increase the control of pollutants to the maximum extent practicable. The systems shall be</p>

Table ES.6. Mitigation Measures for the Maintenance Facility (continued)

Environmental Criteria	
	<p>designed to efficiently and effectively handle and treat dry and wet weather flows to the maximum extent practicable. A Standard Urban Stormwater Mitigation Plan (SUSMP) and appropriate drainage control plan shall be implemented to select and place appropriate permanent treatment BMPs.</p> <p>S-WQ5 During construction of the project, on-site integrated management strategies that employ green infrastructure strategies to capture runoff and remove pollutants shall be used. Green infrastructure strategies combine a variety of physical, chemical, and biological processes that focus on conveying runoff to bioretention areas, swales, or vegetated open spaces.</p>
Energy	None Required
Historic, Archaeological, and Paleontological Resources	None Required
Parklands and Community Facilities	None Required
Economic and Fiscal Impacts	<p>S-DR1 Metro shall provide relocation assistance and compensation, per the Uniform Relocation Assistance and Real Property Acquisition Policies Act and the California Relocation Act, to those who are displaced or whose property is acquired as a result of a maintenance facility for the Crenshaw/LAX Transit Corridor Project.</p> <p>S-DR2 Metro shall set up a business relocation process to oversee the relocation needs of the businesses that would be displaced as a result of a maintenance facility for the Crenshaw/LAX Transit Corridor Project, or the D22N Expansion site. In addition, Metro shall attempt to minimize disruption to overall production of businesses that are connected with airport activities by relocating in as close proximity to LAX as possible.</p> <p>S-DR3 Metro shall work with LAWA to ensure that potential displacement and relocation of rental car businesses are compatible with the long term implementation of the LAX Master Plan consolidated rental car center.</p>
Safety and Security	<p>S-SS1 All stations shall be lit to a standard of no less than two footcandles to minimize shadows and ensure that all pedestrian pathways leading to/from sidewalks and parking facilities shall be well illuminated.</p> <p>S-SS2 Metro shall coordinate and consult with the LAPD, the Hawthorne Police Department, the Inglewood Police Department, or the Redondo Beach Police Department to develop safety and security plans for the alignment, parking facilities, and station areas, where such facilities fall within the specific jurisdiction.</p>
Construction Impacts	<p>S-CON1 Visually obtrusive erosion control devices, such as silt fences, plastic ground cover, and straw bales shall be removed as soon as the area is stabilized.</p> <p>S-CON2 Stockpile areas shall be located in less visibly sensitive areas and, whenever possible, not be visible from the road or to residents and businesses.</p> <p>S-CON3 For security lighting during construction, lighting shall be aimed at the downward and away from residential and other sensitive uses adjacent the maintenance site alternatives, to the extent feasible.</p>

Table ES.6. Mitigation Measures for the Maintenance Facility (continued)

Environmental Criteria	
	S-CON4 Contractor shall maintain a clean and neat work environment at all times.
	S-CON5 Water or a stabilizing agent shall be applied to exposed surfaces in sufficient quantity to prevent generation of dust plumes.
	S-CON6 Track-out shall not extend 25 feet or more from an active operation and track-out shall be removed at the conclusion of each workday.
	S-CON7 Contractors shall be required to utilize at least one of the measures set forth in SCAQMD Rule 403 Section (d)(5) to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site.
	S-CON8 All haul trucks hauling soil, sand, and other loose materials shall maintain at least 6 inches of freeboard in accordance with California Vehicle Code Section 23114.
	S-CON9 All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).
	S-CON10 Traffic speeds on unpaved roads shall be limited to 15 mph.
	S-CON11 Operations on unpaved surfaces shall be suspended when winds exceed 25 mph.
	S-CON12 Heavy equipment operations shall be suspended during first and second stage smog alerts.
	S-CON13 On-site stockpiles of debris, dirt, or rusty materials shall be covered or watered at least two times per day.
	S-CON14 Contractors shall maintain equipment and vehicle engines in good condition and in proper tune per manufacturers' specifications.
	S-CON15 Contractors shall utilize electricity from power poles rather than temporary diesel or gasoline generators, as feasible.
	S-CON16 Heavy-duty trucks shall be prohibited from idling in excess of five minutes, both on- and off-site.
	S-CON17 Construction parking shall be configured to minimize traffic interference.
	S-CON18 Construction activity that affects traffic flow on the arterial system shall be limited to off-peak hours, as feasible.
	S-CON19 During project construction, remediation shall be required at maintenance facilities and vehicle storage areas, where a potential exists for grease and oil contamination to flow into storm drains. Various types of ditch structures, including grease traps, sediment traps, detention basins, and/or temporary dikes shall be used to control possible pollutants. These facilities shall be constructed pursuant to guidance published in Section 402 of the Clean Water Act (CWA) and shall follow the most current guidance within the NPDES program.

Table ES.6. Mitigation Measures for the Maintenance Facility (continued)

Environmental Criteria	
	<p>S-CON20 The maintenance site alternatives currently drain indirectly to Ballona Creek and Dominguez Channel through the MS4. Treatment control BMPs shall be incorporated into the project design. The project shall consider placing the treatment BMPs in series or in a complimentary system to increase the control of pollutants to the maximum extent practicable. The systems shall be designed to efficiently and effectively handle and treat dry and wet weather flows to the maximum extent practicable. A SUSMP and appropriate drainage control plan shall be implemented to select and place appropriate permanent treatment BMPs.</p> <p>S-CON21 Nearby business owners and commercial property owners shall be notified of the schedule for specific planned construction activities, changes in traffic flow, and required short-term modifications to property access.</p> <p>S-CON22 Architectural coatings shall be purchased from a compliant architectural coating manufacturer as identified by the SCAQMD.</p> <p>S-CON23 Contractors shall comply with SCAQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). The requirements for demolition activities include asbestos surveying, notification, Asbestos-containing materials (ACM) removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfilling requirements for asbestos-containing waste materials.</p> <p>S-CON24 Noise barriers (e.g., sound attenuation blankets or solid walls) shall be placed such that the line-of-sight is blocked between sensitive receptors (e.g., residential and institutional land uses) and the project site, as feasible.</p> <p>S-CON25 During the early stages of construction plan development, natural and artificial barriers, such as ground elevation changes and existing buildings, shall be considered for use as shielding against construction noise.</p> <p>S-CON26 The contractor shall comply with Standard Specification 1565, FTA noise criteria and all local sound control and noise level rules, regulations, and ordinances that apply to any work performed pursuant to the contract. Each internal combustion engine used for any purpose on the job or related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated without a muffler.</p> <p>S-CON27 Grading and construction contractors shall use quieter equipment as opposed to noisier equipment (such as rubber-tired equipment rather than metal-tracked equipment) as much as possible.</p> <p>S-CON28 The contractor shall submit a noise plan for construction activity. The plan shall be prepared by a qualified acoustical engineer and should be approved by the resident engineer before construction is initiated. The noise control plan shall include an inventory of the equipment, the estimated noise level at 50 feet for each major piece of equipment, calculations of the noise levels at impacted sensitive receptors, and noise reduction measures for sensitive receptor locations where the predicted noise levels exceed the ambient noise level by 5 dBA.</p>
Growth-Inducing Impacts	None Required

ES.11 Response to Comments

Metro held a series of four public hearings in September/October of 2009 to provide the public with an opportunity to comment on the DEIS/DEIR which was circulated to the public for a 45-day period beginning on September 11, 2009. Approximately 1,500 CDs containing the DEIS/DEIR were mailed to stakeholders and 177 CDs containing the DEIS/DEIR were mailed to public agencies, elected officials, and community groups. Hardcopies of the DEIS/DEIR was also made available at libraries within and adjacent to the corridor. The four public hearings were located in four different areas of the alignment to provide all residents and businesses an opportunity to attend.

There were 1,234 comments received from 533 commenters during the circulation period for the DEIS/DEIR. Comments were received from federal, state, and local agencies, elected officials, community organizations, transit advocates, and from members of the general public. Additional comments were received and recorded after the circulation period closed. Comments were received via fax, mail, e-mail, phone, and at each scoping meeting. Comments were recorded in a database with the source, date, method of receipt, and issue area identified.

The majority of public comments received as a result of the community outreach program expressed support for the LRT Alternative. A significant number of comments requested a below-grade

alignment along Crenshaw Boulevard between the Exposition Line and the Harbor Subdivision, especially the segment of the alignment between 48th Street and 59th Street. These comments sited traffic related impacts and pedestrian safety concerns, as well as street reconfiguration and landscaping. Public input regarding this specific segment of Crenshaw Boulevard prompted a study of a below-grade alignment through Park Mesa Heights between 48th and 60th Streets. Based on the findings of this study, it was determined that the environmental effects of an at-grade alignment through this segment were not significant enough to justify the additional expense involved with constructing and operating a below-grade alignment.

There were 198 written comments from 42 commenters and oral comments made by 53 speakers received during the circulation period for the SDEIS/RDEIR. Comments were received via mail, e-mail, phone, and the public hearings from federal, state, and local agencies, elected officials, community organizations, transit advocates, and from members of the general public. They were recorded in a database with the source, date, method of receipt, and issue area identified. One hundred ninety-seven of the total 198 comments received on the SDEIS/RDEIR were related to the Maintenance Facilities, primarily related to noise, economics, displacement, construction, traffic and air quality. Primarily these comments were related to Site #17 - Marine/Redondo Beach and Division 22

Northern Expansion Alternatives. One comment was received related to parklands and historic and cultural resources concerning Edward Vincent J. Park.

THIS PAGE INTENTIONALLY BLANK