2.0 ALTERNATIVES CONSIDERED

This chapter describes the alternatives that are evaluated in this Final EIS/EIR for the Los Angeles Mid-City/Exposition Corridor. Two basic alternatives are reviewed: 1) the No Build Alternative, and 2) the LRT Build Alternative selected as the Locally Preferred Alternative (LPA).

Following public review of the alternatives contained in the Mid-City/Westside Transit Corridor Draft EIS/EIR in June 2001, the Metro Board of Directors adopted a Locally Preferred Alternative (Draft EIS/EIR Alternative #3a) which included a Bus Rapid Transit (BRT) project on Wilshire Boulevard and a Light Rail Transit (LRT) project along the Exposition Right-of-Way from Downtown Los Angeles to Culver City. The Mid-City/Westside Study Area was separated into two separate corridors for the purposes of final environmental clearance; the Mid-City/Wilshire Corridor and the Mid-City/Exposition Corridor. The Mid-City/Wilshire Bus Rapid Transit Project Final EIR was certified by the Metro Board of Directors in August 2002. The Mid-City/Exposition Corridor LRT Build Alternative is the subject of this Final EIS/EIR.

Since the completion of the Draft EIS/EIR, Metro has decided to modify some portions of the Mid-City/Exposition LRT Build Alternative. Metro has added two Downtown Los Angeles alignment options (Flower Street and Hill Street Couplet) in response to comments from the City of Los Angeles regarding the proposed LRT Build Alternative traffic impacts along Washington Boulevard. Metro has removed the “Non-Revenue Connector” track and mid-day rail storage yard south of Downtown Los Angeles in response to community concerns that were revealed during circulation of the Draft EIS/EIR and replaced these facilities with expansion of the existing Metro Blue Line Yard in Carson. A grade-separation at La Brea Station and two alternatives for grade-separation of La Cienega and Jefferson Boulevards were added to the Project description in response to Metro’s Grade Crossing Policy and traffic and safety concerns expressed by the Cities of Los Angeles and Culver City. In addition, Metro introduced two alternate sites for the parking structure at the La Cienega station. Lastly, three design options for the Venice/Robertson station were also added to the Project description to address LADOT and Culver City concerns about the operation of the Washington/National Boulevards intersection with LRT.

This chapter provides a background of planning studies leading to the selection of the LRT Build Alternative and provides a detailed description of the No Build and LRT Build Alternatives that are evaluated in Chapters 3.0 Transportation Impacts and Mitigation and 4.0 Affected Environment and Environmental Consequences of this document.
2.1 BACKGROUND AND PLANNING CONTEXT

2.1.1 ORIGINAL METRO RED LINE STUDIES (1983-1988)

The Metro Red Line Mid-City/Westside Extension has been an integral element of local, regional and federal transportation planning since the early 1980s. Extending westward from the Los Angeles Central Business District (LACBD) to the Mid-City areas of the Fairfax District or Pico/San Vicente, the Mid-City/Westside Extension had been the subject of in-depth technical studies and extensive community involvement during this period. Ultimately, the line has been envisioned to extend to Century City, Westwood (UCLA) and West Los Angeles.

In 1983, the original Locally Preferred Alternative for the extension of the Metro Red Line (Figure 2.1-1) identified an alignment that followed Wilshire Boulevard to Fairfax Avenue and then north to Hollywood and the San Fernando Valley. In 1985, a naturally-occurring methane gas caused a fire at a Ross “Dress for Less” store, located along the selected LPA alignment, resulted in an investigation by a special City of Los Angeles Task Force. Conclusions from this investigation lead to a Congressional prohibition on federal funding for subway construction within the designated Methane Gas Risk Zone, as determined by the 1985 Task Force report on subsurface conditions in the region. As mandated by the Congressional prohibition, a Congressionally Ordered Re-Engineering (CORE) study was conducted. The intent of this study was to determine an appropriate alignment through which to link the Los Angeles Central Business District, the San Fernando Valley and the Westside. Over 40 candidate alignments were reviewed and six alignments where studied in detail in environmental reports.

In July 1988, a new LPA was chosen. This new LPA would travel from Downtown Los Angeles Union Station to Wilshire/Vermont and split into two separate lines, one traveling west to Wilshire/Western and the other proceeding north to Hollywood and North Hollywood. This alignment was subsequently approved for construction and completed as a series of projects. The subway was completed from Union Station to Westlake/MacArthur Park in 1993, to Wilshire/Western Station in 1996, to Hollywood/Vine in 1999 and to North Hollywood in 2000.

2.1.2 EARLY SYSTEMS PLANNING STUDIES (1989-1990)

In order to evaluate the feasibility of further rapid transit extensions to the Metro Red Line, two important studies were conducted to provide the systemwide framework for such expansion, the Metro Red Line Extension System Planning Study was prepared by the Southern California Association of Governments (SCAG) in 1989 (Figure 2.1-2). In addition, the Los Angeles Metro Orange Line Extension: Transitional Analysis was prepared by the Los Angeles County Transportation Commission (LACTC) in 1990. (The Los Angeles County Metropolitan Transit Authority (Metro) is the successor agency to both the LACTC and the Southern California Rapid Transit District (SCRTD).) These reports document the historical framework for the definition of the Mid-City/Westside Transit Corridor, as well as other corridors. They provide the background systems analysis that was used to justify the need for major capital expenditures in these corridors. The results of the two studies are summarized in the following sections.

The August 1989 Metro Red Line Extension System Planning Study was prepared by SCAG for the LACTC to evaluate future extensions of the original 18-mile Metro Red Line subway line between Union Station and North Hollywood. The Extension Study evaluated travel corridor characteristics, reviewed existing transit operations and analyzed the proposed corridor for consistency with the adopted regional plan. Based on the analysis, the study identified proposed corridor extensions, which met federal criteria for ridership, projected transit demand and which was consistent with the adopted regional plan.
FIGURE 2.1-1

METRO ORIGINAL LOCALLY PREFERRED ALTERNATIVE-1983

LEGEND:

- Existing Red Line
- Existing Blue Line
- Existing Green Line
- Metro Red Line 1983 LPA

SOURCE: Mid-City/Westside Transit Corridor Study, Re-Evaluation/Major Investment Study Report, 2000
Based on the 1989 System Planning Study, a Central East/West Corridor was identified as the highest priority for a Metro Red Line LPA heavy rail extension. The 1990 Transitional Analysis was undertaken to demonstrate that an extension to the east and west could meet federal cost-effectiveness thresholds and provide the basis for proceeding with an Alternatives Analysis/Draft Environmental Impact Statement (AA/Draft EIS). Based on conservative assumptions for the ridership projections, the total cost per new rider was determined to be under the federal threshold. This supported the decision to proceed with a full AA/Draft EIS for the east-west corridor extensions.

2.1.3 METRO RED LINE MID-CITY EXTENSION STUDIES (1990-1998)

In 1990, approval of Proposition C created a new local funding source for transit projects. In 1992 a further study of a Metro Red Line extension to the west was conducted. The 1992 Final Supplemental Environmental Impact Statement/Final Supplemental Environmental Impact Report (Final SEIS/SEIR) adopted an LPA for the Mid-City segment showing the construction of a Metro Red Line extension from Wilshire/Western Station to Pico/San Vicente Boulevards (Figure 2.1-3).

In 1993, geotechnical tests conducted to provide detailed information concerning the nature and extent of hydrogen sulfide gas along the Mid-City LPA alignment found concentrations much greater than preliminary tests had identified. This discovery prompted the 1994 Metro Red Line Segment 3/Mid-City Extension Reassessment Study which identified possible vertical alternative alignments for the LPA to mitigate impacts from the hydrogen sulfide gas. The conclusions of this study initiated a new SEIS/SEIR in 1996 to assess the environmental impacts of shallow cut-and-cover and aerial configurations along the original Crenshaw Boulevard alignment.

The environmental process determined that the impacts of this alignment were highly negative to the community. In an effort to mitigate these impacts, the March 1996 Mid-City Alternative Gas Exploration Study was conducted to investigate a deep-bore tunneling option along the Wilton Place/Arlington Avenue alignment, approximately one-quarter mile east of the adopted LPA. Results of the geotechnical tests done along this alignment produced significantly lower hydrogen sulfide levels. As a result, the Draft Supplemental EIS/Supplemental EIR underway for the Mid-City Segment added a Wilton/Arlington alignment.

In January 1998, Metro suspended work on extensions of the Metro Red Line heavy rail subway Project in the Mid-City and Eastside Corridors. The North Hollywood Extension of the Metro Red Line was allowed to continue into construction. Figure 2.1-3 illustrates the completed Metro Red Line Project with the suspended segments in the Mid-City and Eastside Corridors.
FIGURE 2.1-3

METRO RED LINE EXTENSION
SUSPENDED SEGMENTS (1998)

SOURCE: Los Angeles Metropolitan Transportation Authority

Three planning studies were conducted in the early 1990s following the purchase of the Southern Pacific Exposition railroad right-of-way. These studies envisioned a project that could be locally funded in addition to the Metro Red Line Mid-City/Westside Extension. These studies were suspended in 1994 due to lack of funding.

The *Exposition Right-of-Way Preliminary Planning Study* was completed in May 1992. This study evaluated alternatives for the 12-mile corridor of the former Southern Pacific Railroad right-of-way extending from just south of Downtown Los Angeles to 17th Street in Santa Monica. The study examined light rail transit, trolley bus, a transitway, and a bicycle path. The study recommended four routes and various types of modes for these routes for further study, and identified steps on which subsequent studies should focus on.

The *Exposition Right-of-Way Final Draft Phase I Summary Report* was completed in December 1994. This study continued the transportation planning process initiated in the May 1992 Preliminary Planning Study and examines transit improvements to address mobility needs and demands in the Exposition Right-of-Way Corridor. The study recommended to defer or retain alternatives developed in the course of the analysis and recommended design enhancements and light rail transit (LRT) enhancement options.

The *Exposition Park Branch Line Rail Transit Corridor Route EIR* was completed in April 1992. This environmental impact report examined light rail transit facilities which would operate as a branch of Metro Blue Line. The extensions would link and serve the employment, residential, educational, and cultural centers in Downtown Los Angeles to Exposition Park, USC Campus area and Vermont Avenue business area.

The proposed Exposition Park Branch Line is an LRT line, which would extend along Flower Street from the junction with the existing Blue Line at Washington Boulevard to the Exposition Boulevard right-of-way to a terminus at Vermont Avenue. This Project was environmentally cleared in 1992.

2.1.5 METRO RAPID AND OTHER BUS SERVICE IMPROVEMENT STUDIES (1998-2002)

A number of important bus transit studies were conducted during the time that fixed guideway studies were underway. These studies developed the Metro Rapid bus transit system that serves as an extension of the fixed guideway system. Metro Rapid bus is Metro’s identification or “branding” for Bus Rapid Transit (BRT), which contains several or all BRT attributes, from non-fixed guideway to fixed guideway Metro Rapid bus as listed in the following studies.

The *Westside Bus Improvement Study* was completed in March 1998 and examined bus improvements in the area bounded by Hoover/Hyperion, the Pacific Ocean/Malibu, Mulholland Drive, and 1-10 Freeway/Culver City southern boundary/Jefferson Boulevard. The study found that the current bus service resulted in: slow arterial bus operations, overcrowding on certain lines/times, bus bunching, and continuity and coordination problems. Recommendations included introducing new and faster “Metro Rapid” bus-service and high capacity buses; adjusting network and services for the Metro Red Line openings; improving network connections and service continuity; restructuring duplicated or poorly performing bus route segments; enhancing bus passenger facilities; and developing a “seamless” fare structure.

The *Mid-Cities Bus Transit Restructuring Study* was completed in March 1999 as a follow-up to the earlier 1993 Inner City Transit Needs Assessment Study, with the goals of improving ridership, operations, cost efficiency and cost effectiveness, and integration of the transit system. The Study Area
was bounded by the I-105 Freeway, the Pacific Ocean/La Cienega Boulevard, Slauson Avenue/Marina Freeway, and Alameda Street. Recommendations from the study included a three-tiered restructuring strategy that addressed the needs of the core service of basic routes, the community connectors which serve inter-community travel, and the local services, including shuttles, circulators, feeder services, and demand responsive services.

The *Los Angeles Metro Rapid Bus Demonstration Program* was initiated in March 1999 by Metro’s Board of Directors following an initial feasibility study. Staff was directed by the Board to conduct the feasibility study in response to a visit to Curitiba, Brazil by Metro and City of Los Angeles officials. The Curitiba urban design and public transportation model has been widely praised internationally for its success and has been a major force in the Federal Transit Administration creation of a national Bus Rapid Transit (BRT) initiative. The feasibility study recommended that Metro, in partnership with the City of Los Angeles, conduct a demonstration along two-to-three major arterials which have strong ridership and unique characteristics to provide broad actual experience regarding the feasibility of full-scale deployment of BRT within the Metro system. However, of the 13 key attributes associated with the successful Curitiba BRT, only seven were deemed feasible for implementation during the Phase I Demonstration Program. The remaining six attributes would be deployed in Phase II, system expansion, if the initial demonstration proved successful.

Phase I demonstration implementation planning was initiated in the summer of 1999 with a Spring 2000 goal for start-up of Metro Rapid Bus. Two lines were selected for the demonstration:

- Line 720 Wilshire/Whittier (very high passenger demand urban corridor connecting through the Los Angeles Central Business District (LACBD))
- Line 750 Ventura (high passenger demand suburban corridor serving the Metro Red Line)

The two Metro Rapid lines were implemented on June 24, 2000, coinciding with the opening of the extension of the Metro Red Line to the San Fernando Valley. All seven of the Phase I attributes were fully operational at start-up with the exception of the Metro Rapid Stations where temporary stops were utilized.

The *Metro Rapid Expansion Program Phase II* was adopted by Metro Board of Directors in February 2002. Based on the demonstrated success of Metro Rapid initial lines on Wilshire and Ventura Boulevards, expansion of the system was proposed to the Metro Board of Directors in February 2002. The expansion program identified 28 corridors which best met the Metro Rapid program goals and objectives, and recommended a phasing plan designed to construct a network of Metro Rapid service. This network was adopted as a part of the Metro Short Range Transportation Plan for full implementation by the year 2008 (*Figure 2.1-4*).
Legend

- Existing Metro Rapid Lines-June '04
- Metro Rapid Phase II B (Dec 04-Jun 05)
- Metro Rapid Phase II C (Dec 05-Jun 06)
- Metro Rapid Phase II D (Dec 06-Jun 07)
- Metro Rapid Phase II E (Dec 07-Jun 08)
- Metro Rail and Stations
- Metrolink and Stations

Metro Rapid Implementation Plan - July 2003

Metro

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

SOURCE: Metro Countywide Planning & Development, June 2004
FIGURE 2.1-4

METRO RAPID PROGRAM APPROVED SYSTEM MAP (2002)

In January 1998, Metro suspended work on extensions of the Metro Red Line heavy rail subway Project, which included the initial 2.3-mile segment of the Mid-City Locally Preferred Alternative (LPA) from Wilshire/Western to Pico/San Vicente. This action to suspend further Metro Red Line subway extensions created the need for reevaluation of overall system planning for the affected corridor so that alternative plans for transit service could be developed. As a result, several planning initiatives were undertaken between 1998 and 2000 to redirect the planning of transit projects. These studies and initiatives are described below.

2.2.1 Metro Restructuring Plan

The Metro Restructuring Plan titled: Analysis and Documentation of Metro’s Financial and Managerial Ability to Complete North Hollywood Rail Construction and Meet the Terms of the Bus Consent Decree, was adopted by the Metro Board of Directors on May 13, 1998 and was subsequently approved by the FTA on July 2, 1998. The Restructuring Plan documented that Metro did not have sufficient local matching funds to finance heavy rail subway projects in the Eastside Corridor as anticipated in the original Full Funding Grant Agreements for the Project. At the same time, the Restructuring Plan called for Metro to study “viable and effective options” for transit in all parts of Los Angeles County, with an emphasis on the corridors in which the rail lines had been suspended.

Within the Mid-City/Westside Corridor, this necessitated the examination of alternative fixed guideway options to heavy rail subway. It also committed Metro to a reevaluation of the financial capacities of the agency to undertake new start, fixed guideway projects. To that end, the Board authorized the Regional Transit Alternatives Analysis (RTAA) Study that commenced in July 1998 and was completed in November 1998.

2.2.2 SCAG West Los Angeles Transit Corridor Technical Report (August 1998)

Additional information on Corridor transit needs was developed in the West Los Angeles Transit Corridor Technical Report: 1998 RTP Transit Restructuring for Use in the MTA Re-Evaluation Study. This study considered alternatives to heavy rail subway extensions to the Westside and developed three conceptual alternatives for different types of transit service. The alternatives identified included:

- Transit Corridors Concept
- Intermodal Linkage Concept
- Centers Access Concept

Integral to the above concepts was the idea that no single corridor could adequately service a study as large as the Westside (Figure 2.2-1). Therefore, all of the concepts endeavored to provide a systems context for transit service centered on major corridors and major activity centers. The Transit Corridors Concept further proposed that the Wilshire Boulevard Transit Corridor be supplemented with a second corridor along Exposition and Martin Luther King Boulevards utilizing above-ground transit alternatives. Because of the high cost of subway construction, the alternatives sought to define lower-cost surface solutions that could be implemented incrementally over time in order to provide improved transit service to larger areas of the Westside more quickly than would be the case with more expensive subway extension solutions.
MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

FIGURE 2.2-1
SCAG WEST LOS ANGELES
RESTRICTURING ALTERNATIVES (1998)

SOURCE: Southern California Association of Governments (SCAG)
2.2.3 Regional Transit Alternatives Analysis (November 1998)

The Regional Transit Alternatives Analysis (RTAA) Study accomplished several important objectives for Metro. The study evaluated local funding shortfalls and identified the amount of funding available for new projects between FY1999 and FY2004. It suggested possible funding allocations, identified immediate bus transit improvements in Los Angeles County, and established a framework for further fixed guideway project development in the Eastside, Westside, and San Fernando Valley corridors.

The study included a preliminary evaluation of fixed guideway alternatives in the three corridors. The study did not make recommendations with regard to preferred fixed guideway transit modes or configurations, but recommended that a Major Investment Study (MIS) level of analysis be conducted to provide more information regarding these choices.

Results of the RTAA Study were presented to the Metro Board of Directors on November 9, 1998. At that meeting, the Board approved the concept of a recommended rapid bus system serving the Eastside, Westside and San Fernando Valley. The Board also reaffirmed its commitment to fund fixed guideway transit improvements beyond rapid bus in the suspended rail corridors. A priority funding commitment of $220 million through FY2004 was made to the Eastside and Mid-City areas from remaining uncommitted funds.

2.2.4 Proposition A Ballot Initiative (Subway Funding Prohibition)

A 1998 ballot initiative referred to as the Metropolitan Transportation Authority Reform and Accountability Act, was approved (and became effective) on November 3, 1998. The most significant provision of the new law stipulates that no local Proposition A or C sales tax monies shall be used to fund the planning, design, construction, or operation of any “new subway”. The term “new subway” is defined to mean any subway project (a rail line which is in a tunnel below grade) other than the Metro Red Line Segments 1, 2 or 3 (North Hollywood). As a result, the initiative prohibits the use of these sales tax revenues to build subway extensions in the Mid-City/Westside Corridor.

The initiative does not prohibit the use of sales tax revenues to design and construct light rail, at-grade rail, elevated rail systems, or busways in the Mid-City/Westside, or in other areas of Los Angeles County. Nor does this initiative prevent Metro from using state or federal revenues, or local revenues other than sales tax, to design and construct new subways in these areas.

2.2.5 Mid-City Westside Re-Evaluation/Major Investment Study (1999-2000)

In June 1999, Metro initiated a Re-Evaluation/Major Investment Study (MIS) for the Mid-City/Westside Study Area. Metro also authorized parallel Re-Evaluation/Major Investment Studies for the Eastside and San Fernando Valley corridors.

There were two major objectives for the Mid-City/Westside Re-Evaluation/Major Investment Study: 1) develop predominantly above-ground alternatives to the suspended Metro Red Line subway Project, and 2) identify the Study Area’s long-term transportation needs to be addressed in the Metro Long Range Transportation Plan. The MIS study provided the public and Metro Board of Directors the technical information needed in order to make an informed decision related to selecting an alternative or alternatives that satisfy the needs of the Mid-City/Westside Study Area. The selected alternatives would then be subjected to the next phase of the analysis, which was the preparation of the Draft Environmental Impact Statement/Environmental Impact Report (Draft EIS/EIR).
2.2.5.1 MIS Alternatives

The Re-Evaluation/Major Investment Study looked at six build alternatives, as well as a No Build and Transportation System Management (TSM) Alternative within a broadened study area from that evaluated in the original Metro Red Line Mid-City/Westside Extension studies. The expanded study area for the Mid-City/Westside Study Area considered alternatives for the entire Westside of Los Angeles as described in the RTAA and SCAG system studies described previously in this chapter.

The six build alternatives assessed in the Re-Evaluation/MIS (Figure 2.2-2) included:

1. Wilshire Bus Rapid Transit
2. Exposition Bus Rapid Transit
3. Exposition Light Rail Transit
4. Metro Red Line Extension via Pico/San Vicente
5. Metro Red Line Extension via Wilshire Boulevard
6. Wilshire Aerial Rail Extension

The reader is referred to the Mid-City/Westside Transit Corridor Study, Re-Evaluation/MIS Report (February 24, 2000), incorporated herein by this reference, for additional information about the alternatives studied and the potential environmental impacts.

2.2.5.2 Metro Board Action on MIS Study (February-March 2000)

In February and March 2000, following their review of the findings of the MIS, the MTA Board provided specific direction on alternatives to be carried forward into the next phase of analysis. The primary focus of the Board was to evaluate an exclusive lane for Bus Rapid Transit along Wilshire Boulevard from Western and Wilshire to downtown Santa Monica (MIS Alternative #1). Additionally, the Board considered Bus Rapid Transit and Light Rail Transit in the Metro Exposition Right-of-Way corridor (Alternatives #2 and #3).

While allowing further consideration of Exposition BRT and LRT, the Metro Board was explicit in their direction that the Exposition route be considered as a supporting corridor only, such that Exposition would not supplant Wilshire Boulevard as the primary Westside transit route. Thus, the Exposition BRT and LRT alternatives to be considered in the Draft EIS/EIR document would need to be considered in combination with the Wilshire BRT alternative. The Metro Board further directed that the Exposition route not use the former railroad right-of-way in the Cheviot Hills/Rancho Park area between Venice Boulevard and Sepulveda Boulevard, rather use these streets for the BRT and LRT options.

In keeping with the prior study by SCAG, it was acknowledged that at-grade operations of bus rapid transit or light rail transit could be constructed along two routes at lower cost than a single, heavy rail Metro Red Line extension in subway or aerial configuration. Therefore, the Board directed that heavy rail subway and aerial rail alternatives (#4, #5 and #6) be deleted from further consideration due to high costs, legislative and geotechnical obstacles to subway construction, and perceived visual and property impacts of aerial guideway construction.
2.2.6 Adoption of the Mid-City/Westside Transit Corridors into Regional Plans

The identification of above-ground transit alternatives to the previously approved heavy rail subway extensions in the Mid-City/Westside Re-Evaluation MIS study provided the background analysis so that regional plans could be updated. The following regional plans were updated in 2001 and 2004 to reflect the new alternatives in the Mid-City/Westside Study Area.

2.2.6.1 Regional Transportation Plan (2004)

In 2001, the Southern California Association of Governments (SCAG) updated the Regional Transportation Plan (RTP) for the six-county Southern California region and incorporated the Los Angeles Mid-City/Wilshire and Mid-City/Exposition Transit Corridors as baseline projects in the plan. In this plan, the Mid-City/Wilshire and Mid-City/Exposition Corridors are identified for completion all the way to Santa Monica by the year 2025. The RTP was updated again in April 2004 and maintained the Mid-City/Wilshire and Mid-City/Exposition Corridors as baseline projects in the plan.

2.2.6.2 Metro Long Range Transportation Plan (2001)

Metro has prepared a comprehensive long-range planning document to guide the development of the countywide transportation system. Metro’s 2001 Long Range Transportation Plan for Los Angeles County was approved in April 2001 and provides a blueprint for growth to the year 2025. The Mid-City/Wilshire and Mid-City/Exposition Transit Corridors, including a future phase from Culver City to Santa Monica, are identified in the plan. An updated Metro Long Range Plan (LRP) is currently being prepared for the forecast year 2030, which will reflect the transit planning currently underway.
Following the completion of the Re-Evaluation/MIS report, the Metro Board of Directors authorized the preparation of the Mid-City/Westside Transit Corridor Draft EIS/EIR. A public scoping period was held in May-June 2000 and all of the alternatives carried forward from the MIS report were evaluated in this environmental study. The Draft EIS/EIR was circulated for public comment between April and June 2001. As described in Chapter 6.0 Community Participation of this document, three public hearings were held during that time and the Metro Board of Directors considered the public testimony and environmental report at their June 2001 meeting.

The reader is referred to the *Mid-City/Westside Transit Corridor Draft EIS/EIR, (April 2001)*, incorporated herein by this reference, for additional information about the alternatives studied and the potential environmental impacts.

### 2.3.1 DRAFT EIS/EIR ALTERNATIVES

Alternatives evaluated in the Draft EIS/EIR included a No Action and Transportation Systems Management (TSM) Alternative. The No Action Alternative provided some significant improvements over existing bus service by reflecting committed Metro programs to be implemented by the year 2020, and has been updated to reflect the Metro Rapid Bus Implementation Plan previously described in Section 2.1.5 and illustrated in Figure 2.1-4. Additional service enhancement was also provided as a reflection of court mandated consent decree service. The No Action Alternative is more fully described in Section 3.1 Transit of this document.

The Transportation Systems Management (TSM) Alternative builds upon Metro Rapid and Consent Decree service to provide increased headways along parallel bus lines to the Exposition Transit Corridor. The purpose of this parallel service is to emulate the service provided by the Wilshire and Exposition lines without the cost of the fixed guideway investments. Some additional bus service improvements and modifications were made to the background bus network, as appropriate, to support the proposed improvements in east-west bus lines.

The Draft EIS/EIR included a total of seven Build Alternatives for evaluation. The alternatives considered in the Draft EIS/EIR are illustrated in Figure 2.3-1 and included the following.

- 1A Wilshire BRT (Median Running Bus Lanes)
- 1B Wilshire BRT (Median Adjacent Bus Lanes)
- 1C Wilshire BRT (Curb Adjacent Bus Lanes)
- 2 Wilshire BRT + Expo BRT (to Santa Monica)
- 2A Wilshire BRT + Expo BRT (to Culver City)
- 3 Wilshire BRT + Expo LRT (to Santa Monica)
- 3A Wilshire BRT + Expo LRT (to Culver City)

**Wilshire BRT Alternatives** - For Alternatives 1A, 1B and 1C, the operating plan provided that Metro Rapid Bus service would continue to be provided over the 26-mile length of the present service from Whittier to downtown Santa Monica. In the 13.2-mile segment between Wilshire/Western and downtown Santa Monica, a dedicated bus lane would be provided in each direction along Wilshire Boulevard.
**ALTERNATIVE 1: WILSHIRE BRT**

Route is representative of all three design options for Alternatives 1, 1A, & 1B

**ALTERNATIVES 2 & 3: EXPOSITION BRT/LRT**

* Alternatives 2, 2A, 3, 3A, also include the Wilshire BRT route

**TERMINI OF ALTERNATIVES 2 & 3***

**TERMINI OF ALTERNATIVES 2A & 3A***

**LEGEND:**

- A Santa Monica
- B West Los Angeles
- C Beverly Hills
- D Culver City
- E Los Angeles
- F South Los Angeles/Downtown

**SOURCE:** Terry A. Hayes Associates LLC

**FIGURE 2.3-1**

**MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR**

**LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY**
This alternative included three design options; 1A) the center lane concept; 1B) the median adjacent lane concept; and 1C) the curb lane concept.

**Exposition BRT Alternatives** - For Alternatives 2 and 2A, the above alternatives for Wilshire Boulevard transit improvements would be supplemented by the construction of an exclusive busway using the Exposition right-of-way owned by Metro. The bus service would originate in Downtown Los Angeles and would operate in mixed flow along Figueroa Street and Exposition Boulevard until reaching the Exposition right-of-way east of Vermont. From that point, the busway would be located within the former railroad right-of-way until reaching Venice Boulevard. At that point, bus lanes would be constructed in the center of Venice and Sepulveda Boulevards until rejoining the railroad right-of-way at Sepulveda and Exposition Boulevards. West of Sepulveda Boulevard, a busway would again be provided in the railroad right-of-way, until intersecting with Olympic Boulevard in Santa Monica. From that point the bus service would operate in mixed flow along Olympic Boulevard, 17th Street, and Colorado Boulevard until reaching its terminus at the Santa Monica Transit Mall west of Lincoln Boulevard. Alternative 2 reflects the full Exposition BRT to Santa Monica while Alternative 2A reflects a busway that extends from Downtown Los Angeles to Venice/Robertson (Culver City) only.

**Exposition LRT Alternatives** - For Alternatives 3 and 3A, the above alternatives for Wilshire Boulevard transit improvements would be supplemented by the construction of an exclusive light rail guideway using the Exposition right-of-way owned by Metro. The LRT service would originate in Downtown Los Angeles and the LRT vehicles would operate along Hill Street until reaching the Exposition right-of-way. The LRT guideway tracks would be located within the railroad right-of-way until reaching Venice Boulevard. At that point, a guideway would be constructed in the center of Venice and Sepulveda Boulevards until the railroad right-of-way rejoins the former railroad right-of-way at Sepulveda and Exposition Boulevards. West of Sepulveda Boulevard, the LRT line would again use the railroad right-of-way, until reaching the intersection with Olympic Boulevard in Santa Monica. From that point the LRT service would operate on Olympic Boulevard. The guideway would cross over Lincoln Boulevard and the Santa Monica Freeway and terminate near the Santa Monica Civic Center. Alternative 3 reflects the full Exposition LRT to Santa Monica while Alternative 3A reflects a light rail line that extends from Downtown Los Angeles to Venice/Robertson Boulevards (Culver City) only.

**2.3.2 SELECTION OF THE LOCALLY PREFERRED ALTERNATIVE (LPA)**

The public review of the Draft EIS/EIR extended from April 13, 2001 through June 15, 2001. A Notice of Availability was published in the Federal Register, and a Notice of Completion was filed with the California State Clearinghouse (SCH#2000051058). Public notices also appeared in local newspapers and through an extensive mailing to provide the public advance notice of the three community public hearings held on May 7, May 9 and May 15, 2001. The public hearings and other community meetings were held to discuss the contents and comparisons presented in the Draft EIS/EIR. Considerable public input has been sought through additional community meetings, station area meetings, corridor working groups, stakeholder meetings, etc., during development of the Final EIS/EIR regarding the modified options.

At the Board meeting of June 28, 2001 the Metro Board of Directors considered the Project’s public comments received including letters and public hearing testimony. Following consideration of all comments, the Metro Board formally adopted Alternative 3A (Wilshire BRT + Expo LRT to Culver City) as the Locally Preferred Alternative for the Mid-City/Westside Transit Corridor. The Board further directed that the Wilshire and Exposition branches of the Mid-City/Westside Transit Corridor be split into separate transit corridors for purposes of final environmental clearance.

As a result of the direction to separate the Wilshire and Exposition Transit Corridors, the Mid-City/Wilshire Transit Corridor has been further evaluated in the Wilshire Bus Rapid Transit Project Final
EIR. That document was certified by the Metro Board of Directors in August 2002. The Mid-City/Exposition Transit Corridor is being evaluated separately as a part of this Final EIS/EIR.

With regard to the Mid-City/Exposition Transit Corridor, the adoption of Alternative 3A, approved for final environmental clearance, a light rail transit project from Downtown Los Angeles to Culver City. The action deleted further consideration of Alternative 2 Bus Rapid Transit (Downtown Los Angeles to Santa Monica), 2A Bus Rapid Transit Alternative (Downtown Los Angeles to Culver City) and Alternative 3 Light Rail Transit (Downtown Los Angeles to Santa Monica). The deletion of Alternatives 2 and 2A from further consideration was based on the selection of light rail transit instead of bus rapid transit as the preferred transit mode for the Mid-City/Exposition Transit Corridor. The deletion of Alternative 3 from further consideration was based on the decision to limit the total length of the Project to extend from Downtown Los Angeles to Culver City (approximately 9 to 10 miles) instead of Downtown Los Angeles to Santa Monica (approximately 16 to 17 miles).

The following are some of the reasons that were cited in the selection of light rail transit (Alternative 3A) over bus rapid transit (Alternative 2 and 2A) in the Mid-City/Exposition Transit Corridor:

- **Intensity of Transit Use-** The Mid-City/Exposition Transit Corridor is expected to carry a higher number of transit riders than most other corridors, however, the right of way passes adjacent to many schools, parks, residential neighborhoods and other sensitive land uses. Light rail vehicles can carry up to 600 persons on a typical three-car train, whereas the largest BRT vehicles can carry approximately 90 passengers per vehicle. Therefore, the LRT vehicles can reduce the impacts on the adjacent land uses by carrying the high number of transit riders in approximately 1/6 the number of vehicles. This significantly reduces the impacts to adjacent communities.

- **Traffic Impacts-** Light Rail Vehicles will be able to operate with maximum frequencies of once every five minutes in the peak periods. Similar service levels with BRT vehicles would require that buses operate every 45 to 60 seconds in order to carry a similar number of passengers. This creates a greater number of traffic impacts at street crossings and reduces the amount of signal priority that can be provided to the transit vehicles. As a result, BRT provides slower travel times than LRT in this corridor because of the high traffic volumes on cross streets and the reduced levels of traffic signal priority that can be provided for the BRT service levels required.

- **Noise Impacts-** Noise from BRT vehicles is generated from the engine exhaust vents which are 10 to 12 feet above grade. Noise from LRT vehicles is generated from the wheels which are one to three feet above grade. As a result, soundwalls must be 10 to 12 feet tall in many areas to mitigate the sound from BRT vehicles. LRT soundwall heights can range from three to four feet if located immediately adjacent to the tracks to six to eight feet if located at the right of way line. Furthermore, LRT vehicles would pass less frequently than BRT vehicles and generate fewer numbers of intrusions to communities as a result.

- **Narrowness of Right of Way-** Because the Exposition Right-of-Way is quite narrow in many areas, the BRT Alternative would require the removal of most trees and plant materials from the right of way in order to provide the paved asphalt running surface. When combined with the existing traffic lanes, this would have the effect of creating a very wide roadway that would have the appearance of a six to ten lane arterial roadway. The LRT guideway does not require a paved surface and is generally narrower than the BRT guideway. This allows for separation between the automobile roadway and the trackway surface and the opportunity to provide landscaping in these areas that would not be possible in most segments of the BRT guideway. This landscaped buffer was an important consideration to several communities along the corridor as it allows for a “transit parkway” concept that was able to be developed as a part of the LRT Project.
• System Connectivity in Downtown Los Angeles - The LRT Alternative would operate as a branch of the Metro Blue Line and share stations and a subway tunnel in Downtown Los Angeles. This provides faster operating times in the Downtown area and allows for easier transfers with the Metro Blue Line and Metro Red Line than would be possible with an above-ground bus system in the Downtown area.

The most significant reason for the selection of the length of the LRT Project from Downtown Los Angeles to Culver City (Alternative 3A) instead of Downtown Los Angeles to Santa Monica (Alternative 3) was a lack of funding. The costs to construct a light rail transit project from Downtown Los Angeles to Santa Monica were estimated at more than $1.0 billion in future (year of expenditure) dollars. Because of limited funding availability at both the state and federal levels, a project of this size did not seem feasible in 2001. The Board instead adopted a motion expressing “an intent to complete the project to Santa Monica in the future.”
2.4 DESCRIPTION OF LRT BUILD ALTERNATIVE CONSIDERED IN THIS FINAL EIS/EIR

This section presents the Locally Preferred Alternative (LPA) for the Mid-City/Exposition LRT Corridor. The LPA was adopted after thorough review and analysis of the Mid-City/Westside Transit Corridor Draft Environmental Impact Statement (EIS)/Environmental Impact Report (EIR) by the Los Angeles County Metropolitan Transportation Authority (Metro) in June 2001. This review included consideration of comments received from affected local jurisdictions, organizations, and individuals.

The LPA, in large part, uses the existing Exposition Right of Way (ROW) owned by Metro, which extends from south of Downtown Los Angeles to Santa Monica for approximately 16 miles. This corridor is currently an abandoned railroad ROW that runs parallel to I-10 (Santa Monica Freeway), one of the most heavily used and congested freeways in the nation. Historically, the Exposition Corridor had both freight and inter-urban passenger rail service during the 20th Century. Southern Pacific Railroad formerly owned the ROW until purchased by Metro in 1990. Since that time, the corridor has been recognized in local and regional planning documents as a possible transit corridor. The corridor has consistently been an element of Metro’s Long Range Transportation Plan.

In 2000, Metro considered the Exposition Corridor as part of the Mid-City/Westside Transit Corridor Draft EIS/EIR. In this assessment, two parallel transit corridors were evaluated to extend transit service to West Los Angeles. One was to run along Wilshire Boulevard extending from the Wilshire/Western Metro Red Line Station to Santa Monica, and the other along the Exposition ROW extending from the Metro Blue Line Station at 7th Street/Metro Center to Santa Monica. The Draft EIS/EIR evaluated No Action, TSM and two build alternatives along Exposition Corridor, i.e., a bus rapid transit option (BRT) and a light rail transit option (LRT). Along the Exposition route, a Minimum Operable Segment (MOS) was identified in the Draft EIS/EIR as Alternative 3A. This would extend either BRT or LRT service from Downtown Los Angeles to Culver City.

Based on the findings of the Draft EIS/EIR, in June 2001 Metro separated the two corridors into individual projects. Metro adopted an LPA for BRT service along Wilshire Boulevard and adopted LRT extending from Downtown Los Angeles to Culver City as the LPA along the Exposition Corridor. Metro determined that each project would be environmentally cleared separately. This FEIS/EIR deals solely within the Mid-City/Exposition Corridor and is not part of an area-wide transit study. The LPA of the Exposition Corridor is also known as the Mid-City/Exposition LRT Project. For the purposes of this document, the LPA will be identified as part of the Mid-City/Exposition LRT Project, or the proposed Project.

2.4.1 INITIAL SCREENING

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the environmental impacts of a proposed Project. In addition to mandating consideration of the No Action Alternative, both NEPA Regulations (40 CFR 1502.14) and CEQA Guidelines (Section 15126(d)) emphasize the selection of a reasonable range of technically feasible alternatives and the preparation of a comparative analysis of these alternatives to allow for adequate consideration by decision-makers. NEPA Regulations (Section 1502.14) provide for the inclusion of reasonable alternatives, including those that may not be within the jurisdiction of the lead agency.

CEQA Guidelines state that the discussion of alternatives shall focus on alternatives capable of eliminating or reducing significant adverse environmental effects of the proposed Project, even if these alternatives would impede to some degree the attainment of the Project objectives or would be more
costly. Finally, CEQA Guidelines declare that an EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote or speculative.

To better understand how and why alternatives were selected for, or eliminated from, further consideration, the process used to develop the alternatives is presented below. The development of the alternatives involved a lengthy, multi-step process, and included

- An alternatives-identification and screening process conducted during the MIS phase of study
- Actions taken by the Metro Board based on findings from the MIS (as described below in Summary of Screening Results below)
- Design modifications based on input provided by the public during the Draft EIS/EIR scoping period

### 2.4.1.1 Screening Methodology

As mentioned above, the development of the alternatives involved an extensive screening process. The screening process served two overall purposes:

- To eliminate alternatives that do not conform to NEPA/CEQA requirements; and
- To distinguish alternatives to the Project from other EIS/EIR elements (such as suggested mitigation measures).

Alternatives to the proposed Project were initially selected for this study based on the planning efforts that had occurred prior to this study, as well as input from the public during the EIR scoping hearings, agency suggestions, and public comments on the draft MIS. The alternatives screening process consisted of the following steps:

- Develop Project objectives
- Determine impacts to be avoided or minimized
- Develop broad list of alternatives
- Develop screening criteria for feasibility
- Screen alternatives for feasibility
- If alternative is determined to be infeasible, eliminate from further consideration and provide explanation for its elimination
- If alternative is determined to be feasible, carry alternative forward into the next, more-detailed evaluation in the Draft EIS/EIR

Infeasible alternatives and alternatives that clearly offered no potential for environmental advantages were removed from further consideration and analysis. In the final phase of the screening analysis, the advantages and disadvantages of the remaining alternatives were carefully weighed with respect to the potential for overall environmental advantage, technical feasibility, and consistency with Project and public objectives. These criteria are discussed in the following subsections.

**Potential to Eliminate Significant Environmental Effects.** If an alternative clearly does not provide any environmental advantages as compared to the proposed Project, it is eliminated from further consideration. At the screening stage, it is not possible to evaluate potential impacts of the alternative or the proposed Project with absolute certainty. However, it is possible to identify elements of an alternative that are likely to be the source of impacts and to relate them, to the extent possible, to general conditions of the Study Area or to other concepts that encompass the bounds of the issue which the alternative is intended to address.
Feasibility. For the screening analysis, the technical and regulatory feasibilities of various potential alternatives were assessed at a general level. Specific feasibility analyses are not needed for this purpose. Infeasibility was defined more by kind than by degree. The assessment was directed toward reverse reason (i.e., was anything about the alternative infeasible on technical or regulatory grounds?).

Consistency with Project Objectives. For screening purposes, the following general Project objectives were established:

- Provide safe, high-capacity transit service to the Westside
- Develop safe, high-capacity transit system at a relatively low cost

The screening analysis does not focus on relative economic factors of the alternatives, since CEQA Guidelines require consideration of alternatives capable of eliminating or reducing significant environmental effects even though they may “impede to some degree the attainment of Project objectives or would be more costly.” NEPA (40 CFR Part 1502.23) requires that the merits and drawbacks of the various alternatives need not include a monetary cost-benefit analysis, and states that economic concerns should not overshadow qualitative considerations. Likewise, the question of market demand is not considered.

2.4.1.2 Screening Studies

Proposed alternatives identified by Metro (Lead Agency), other affected public agencies, and the members of the general public are listed below. It should again be noted that only those alternatives pertaining directly to the Mid-City/Exposition LRT Project are noted below. Alternatives considered for the Wilshire Corridor were analyzed in a separate Final EIR that was released in August 2002.

Alternatives Evaluated in the Mid-City/Westside Transit Corridor Study Re-Evaluation/Major Investment Study

As discussed above, the alternatives evaluated in the Mid-City/Westside MIS evolved over a 17-year time span and reflected a certain evolutionary process influenced by expanded knowledge of the existing geotechnical conditions, and greater community awareness and understanding of general transit needs. This process was derived from previous studies of the selected LPA associated with the Exposition Right-of-Way (ROW), currently owned by Metro, as a viable future transit improvement opportunity.

Based on previous study efforts conducted for the Study Area, a set of alternatives was selected for screening in the MIS phase prior to the preparation of the Draft EIR. The alternatives evaluated in the MIS pertaining to the Exposition Corridor only, and the recommendation to either study an alternative or eliminate it from further consideration are described below.

- **Exposition Bus Rapid Transit (BRT)**. This alternative offers significant long-term transportation benefits and provides connection to Downtown Los Angeles, USC, Exposition Park and Harbor Freeway Transitway from key centers in Santa Monica, West Los Angeles, and Culver City.

- **Mid-City/Exposition Light Rail Transit (LRT)**. This alternative offers significant long-term transportation benefits and provides connection to Downtown Los Angeles, USC, Exposition Park, and Harbor Freeway Transitway from key centers in Santa Monica, West Los Angeles, and Culver City. This alternative has less frequent disruption of intersections and adjacent properties when compared with the BRT and has the capacity to serve post-2020 demand.

The MIS conclusions and recommendations listed above were forwarded to Metro for their consideration.
2.4.1.3 Metro Board Actions (February 2000, June 2001)

At Metro’s regular February 2000 Board meeting, the Wilshire BRT and Exposition Bus Rapid Transit and Light Rail Transit alternatives were selected for environmental review and further analysis. Following preparation of the Draft EIS/EIR in June 2001, the Metro Board adopted a Locally Preferred Alternative (LPA) consisting of Bus Rapid Transit (BRT) for the Wilshire Boulevard route and Light Rail Transit (LRT) for the Exposition route. At that time, the Metro Board separated the Wilshire BRT and Mid-City/Exposition LRT in separate environmental documents.

This LPA is identical to the Mid-City/Exposition LRT analyzed as Alternative 3A in the Draft EIS/EIR, following action by Metro to separate the Mid-City/Exposition LRT and the Wilshire BRT into separate projects. The Mid-City/Exposition Corridor LRT Locally Preferred Alternative (LPA) reflects the MOS identified in the Draft EIS/EIR. The adoption of the LPA has resulted in the Mid-City/Exposition LRT MOS as adopted as the proposed Project for the Mid-City/Exposition LRT Final EIS/EIR and that there is no project extending beyond the two terminal points of the LPA.

2.4.2 LOCALLY PREFERRED ALTERNATIVE

The route of the LPA runs from a joint terminal facility with the Metro Blue line at the 7th Street/Metro Center in Downtown Los Angeles to a terminal station at Venice Boulevard near Washington and Robertson Boulevards in Culver City, a distance of approximately ten miles. The dual track alignment will have up to eleven stations. Three stations will be shared with the Metro Blue Line and eight new stations will be constructed exclusively for Mid-City/Exposition LRT trains. Two of the new stations will be constructed as part of an elevated bridge structure spanning a major thoroughfare. The length of the LPA route not shared with the Metro Blue Line is 7.7 miles. In the new construction segment, the LRT will operate either in the center or curb lane of selected streets (as described below) or within the Metro-owned Exposition ROW. Specifically, the LPA would use the existing Metro Blue Line track facilities extending from the 7th Street/Metro Center along the at-grade portions of Flower Street and along the at-grade portion of Washington Boulevard until the intersection of Washington Boulevard and Hill Street. At Hill Street, the line would turn southward in the middle of Hill Street until it reaches the Exposition ROW. The line would then proceed westward using this ROW until the terminal station at Venice and Washington Boulevards. Figure 2.4-1 illustrates this route. Figure 2.4-2 depicts the division of the route into three geographic subareas for purposes of providing more detailed descriptions and environmental impact assessment. Figures 2.4-3 through 2.4-14 (shown at the end of this Section) show typical cross sections in the Downtown Los Angeles Connection, Mid-Corridor, and West End geographic subareas.

Alignment Options are also included for consideration in the Project. These alignment options are known as Design Options to the LPA. These design options are located within the Downtown Los Angeles Connection segment and the West End segment. Within the Downtown Los Angeles Connection segment, three design options are described below:
FIGURE 2.1

GENERALIZED MID-CITY/EXPOSITION LRT ROUTE
FIGURE 2.4-2

GEOGRAPHIC SUBAREAS

SOURCE: Terry A. Hayes Associates LLC, 2004
Downtown Los Angeles Design Options

- Hill Street Couplet Design Option
- Flower Street Design Option
  - USC/Exposition Undercrossing
  - USC/Exposition Modified Undercrossing
  - USC/Exposition Extended Undercrossing

Within the West End segment, two design options are described below:

La Cienega Parking Options

- Southwest Corner Option
- No Parking Option

Jefferson Boulevard Design Options

- Medium Bridge Design Options
  - with North Widening
  - with South Widening

Venice/Robertson Design Options

- ROW Design Option
- North of ROW Design Option
- Aerial Station Design Option

The Design Options to the LPA are further described on pages 2.4-20 through 2.4-24, including alignment and station modifications.

The Mid-City/Exposition LRT Project system would use light rail vehicles with standard dimensions measuring 90 feet long, 8.6 feet wide, and 15 feet in height. The system would use a catenary (overhead wires) as a source of power. The LRT maximum speed would be 55 miles per hour, with an average speed of 24 mph including stops and delay in street-running sections. It would take just under 31 minutes to run the length of the line. All LRT Stations would be designed to accommodate three-car trains. Selected bus routes would be modified to connect or truncate at LRT stations as shown in Figure 2.4-15.

It is envisioned that on opening day there would be an initial LRT fleet of approximately 16 vehicles. The fleet would be expanded over time to approximately 31 vehicles as demand increases. Initially, the fleet could operate as one or two-car trains depending on the time of day and expand to three-car trains as warranted by demand. Trains are expected to run every five minutes during peak hour and every ten minutes during off-peak hour. During peak periods, to further reduce travel times, Metro may also introduce express service where there would not be a stop at every station. Ridership forecasts estimate there would be approximately 43,600 daily riders in the Year 2020.
The Mid-City/Exposition LRT Project is designed to operate as a fully integrated transportation system. Transit centers at designated stations would be created to feed into comprehensive bus networks. In total, 11 stations and one optional station would be located at appropriate intervals along the 9.5-mile Mid-City/Exposition LRT route. Station locations are shown in Figure 2.4-1 above and include the following:

- 7th Street/Metro Center (existing)
- Pico (existing)
- Grand (existing)
- Hill/21st Street
- USC/Exposition Park
- Vermont
- Western
- Crenshaw (Parking Facilities)
- La Brea
- La Cienega (Parking Facilities with Transit Center)
- Venice/Robertson (Parking Facilities with Transit Center)

At the Crenshaw, La Cienega and Venice/Robertson Stations Parking Facilities would be created. The Venice/Robertson Station may also feature a Clean Mobility Center (CMC) that seeks to promote public transportation and alternative fuel vehicles by providing a centralized bicycle parking and bicycle-sharing facility, along with a car-sharing facility. The CMC will have direct access to all transit facilities at the station. Both La Cienega and Venice/Robertson Stations will also feature transit centers.

The light rail Project would also incorporate a bikeway which will parallel the length of the LRT alignment from Vermont Station to Venice/Robertson Station. These bike facilities would provide connections to the existing Ballona Creek Bike Path, as well as to the future Exposition West Bike Path that will be on the Exposition ROW northwest of Venice Boulevard to Sepulveda Boulevard. The Class I bike path will run from Wesley Street to the Ballona Creek for approximately 0.6 miles, at which point it will feed into the Class II bike lane running for almost five miles to Vermont Avenue. In total, the bicycle facility included in the Project would be just over five and one half miles.

During the Draft EIS/EIR circulation period, comments were received from the City of Los Angeles Department of Transportation (LADOT) regarding the Flower to Hill Streets portion of the LPA. These comments concluded that adding another LRT line operations to this segment would significantly adversely affect north-south cross street traffic along Washington Boulevard, between Flower Street and Long Beach Avenue, by disrupting the traffic signal timing progressions. As a response to the comment, this document includes two route alignment design options that could alleviate these traffic/rail operational conflicts on Washington Boulevard.

One option would carry the LRT east-west from Flower Street in a corridor between 17th and 18th Streets and provide a connection to Hill Street north of Washington Boulevard, thus eliminating additional LRT operations on Washington Boulevard. Another option entails the LRT alignment running along the east side of Flower Street from Washington Boulevard to Exposition Boulevard and entering an undercrossing passing under Figueroa Street. There are three undercrossing design options. One would extend 2,290 feet in a primarily open undercrossing with a covered segment of about 600 feet and bridge crossings at Pardee Way and Figueroa Street. It would come to grade east of Trousdale Parkway. The second would be the same length, but would be covered for its fully depressed length of approximately 1,250 feet. The third undercrossing option would have a covered length of about 2,200 feet and would run a total of 3,350 feet, coming to grade at Watt Way. The options are depicted in Figure 2.4-18 shown later in this Section. The environmental effects of these three design options are evaluated in this report.
2.4.2.1 Components of the Locally Preferred Alternative

This Project description groups all of the LPA elements of the Project into the following components for continued elaboration in this Section and this document. The LPA’s Project elements are defined in the following components:

- Exposition Transit Parkway
- Operations and Maintenance Facility

All Project description options previously described above and mentioned hereafter is further elaborated in one or more of the LPA components listed below.

2.4.2.1.1 EXPOSITION TRANSIT PARKWAY

Exposition Transit Parkway Description. The Exposition Transit Parkway includes the LRT Project, bikeway facilities, pedestrian linkages, landscape design, public art, and related system facilities of the alignment as a seamless, integrated component of the Mid-City/Exposition LRT Project.

The Exposition Transit Parkway includes the following elements:

2.4.2.1.1a Route Alignment and Guideway

- LPA Segments
  - Downtown Los Angeles Connection
  - Mid-Corridor
  - West End
- At Grade Crossings
- Pedestrian Crossings and Linkages
- Design Options to the LPA
  - Downtown Los Angeles Connection
  - La Cienega Station Parking Options
  - Jefferson Boulevard Design Options
  - Venice/Robertson Design Options

2.4.2.1.1b Stations

- Standardized Station Design
- Station Types
- Station Locations
- Station Program
- Station Description
- Station Options
2.4.2.1.1c Parking Facilities
- Downtown Los Angeles Connection
- Mid-Corridor
- West End

2.4.2.1.1d Bikeway and Bikeway Facilities
- Bikeway Description
  - Downtown Los Angeles Connection
  - Mid-Corridor
  - West End
- Bicycle Facilities at Stations
- Bikeway Features

2.4.2.1.1e Landscaping, Public Art and Other Transit Parkway Improvements
- Landscaping Plan
  - Planting Guidelines
  - Landscape Planting at Corridors
  - Landscape Planting at Stations
  - Parking Facilities
  - Elevated Stations, Embankments and Walls
- Integrated Corridor Features
  - Public Art and System Elements
  - Pedestrian Safety Features
  - Signage and Graphics
- Systems Facilities
  - TPSS Facilities
  - Communication and Signal Building (at Stations)

2.4.2.1.1f Planning Principles
The Exposition Transit Parkway follows these planning principles:
- To establish a multi-modal transit corridor combining a light rail transit alignment, a bikeway, streets and pedestrian linkages in a safe, balanced and cohesive parkway setting:
- To develop a transit parkway that encourages links, buffers, borders, paths and edges from the parkway into diverse communities along the alignment:
- To weave the transit parkway into the existing urban fabric of the city by combining public art, architecture and landscape design with public transportation that integrates neighborhoods and is legible across the entire alignment:
- Provide design continuity across the alignment through art and landscaping while allowing for variation to distinguish individual neighborhoods:
- Provide architectural and landscape designs to express movement and place along the alignment:
- Develop designs that promote sustainability of natural resources; and
- Integrate regional planning goals of the Project with local communities along the alignment.
The concept for the Exposition Transit Parkway has historical roots in Olmsted and Bartholemew’s plan for “Parks Playgrounds and Beaches of Los Angeles.” This comprehensive master plan, published in 1930, describes existing and proposed recreational open spaces and the parkways that were meant to link them. Translating this planning ideal for an urban transit parkway into the 21st century suggests a new set of guiding principles.

The following is a detailed description of all elements of the Exposition Transit Parkway described above. The route alignment is described and illustrated with the following paragraphs. Refer to the Plan and Profile drawings contained in Appendix A for further information.

2.4.2.1a Route Alignment and Guideway

LPA Segments

**Downtown Los Angeles Connection.** The Downtown Los Angeles Connection is the segment of the LPA beginning at 7th Street/Metro Center in Downtown Los Angeles to Vermont Station. From 7th Street/Metro Station, the Project would share the existing station platform, tunnel and tracks used by the Metro Blue Line. These existing dual tracks would emerge at ground level on the eastside of Flower Street between 11th and 12th Streets. The east side of Flower Street, from the existing LRT portal to approximately 23rd Street will be improved with the implementation of the Project. Such improvements would include and not be limited to street restoration, including sidewalk and open space enhancements, with Landscaping, Public Art and other Transit Parkway Improvements in this segment of the alignment. The Project will include a stop at the existing Pico Station.

The LPA would continue to share an existing dual-track alignment with Metro Blue Line along the eastside of Flower Street and turn eastward at Washington Boulevard, where the existing Metro Blue Line tracks are located in a semi-exclusive median. The LRT will stop at the existing Grand Station. At Hill Street, the LPA would turn south of the median on Washington Boulevard and would continue in a semi-exclusive median along Hill Street. The entire LRT alignment on Hill Street will operate under street running operations using an embedded trackway. To accommodate LRT street running operations in a semi-exclusive median, all curb parking on both sides of Hill Street would be eliminated from Washington Boulevard to the Exposition ROW. There will be a new station at 21st/Hill Street. The LRT alignment will then turn westbound at Hill Street and the Exposition ROW. The alignment will cross at-grade and beneath the existing I-110 (Harbor Freeway) viaduct and will also cross intersections adjacent to freeway on and off-ramps. The LRT will run in-between freeway columns next to the ROW, while crossing under the I-110 (Harbor Freeway) viaduct. The LRT will then be side running next to an existing building before the LRT crosses Figueroa Street. Track segments between intersections from Hill Street to Flower Street will be ballasted trackway. All crossings at intersections within this segment will be on concrete grade-crossing panels. Embedded track will also be used from Flower Street to Vermont Avenue.

The LRT will run at-grade from Flower Street to Vermont Avenue. The design concept of the Exposition Transit Parkway would maintain a visual continuity of Exposition Boulevard as an extension of Exposition Park. The LRT will be operating at street running speeds so that the LRT is running similar to a streetcar or tram within a wide landscaped median. The Exposition ROW is located in the median. Approximately 16 feet on either side of the ROW would be widened to accommodate dual track LRT operations and a wide landscaped median for the Exposition Transit Parkway. Exposition Boulevard would have two vehicular travel lanes in the east and west directions. On-street curb parking will be eliminated on the north side of Exposition Boulevard.

Crossing gates and barriers will not be needed in this segment because the LRT will be operating at the same speeds as automobile traffic. Extensive landscaping running on the north and south sides of the
trackway would provide a green link between Exposition Boulevard and Exposition Park. Vehicular left turns at Pardee Way and full pedestrian access from USC to Exposition Park at Trousdale Parkway, Watt Way and Menlo Avenue will be maintained. Specially designed landscape, public art and other transit parkway improvement elements will assist pedestrians crossing safely at-grade in coordination with LRT operations during normal use. During special event days where Exposition Boulevard is closed or has limited vehicular access, a plan is provided to interrupt LRT service or to create limited special events train service with slower moving trains between Vermont Station and Figueroa Street, much like streetcar service in other cities.

An option to construct a new USC/Exposition Park station will be located in the vicinity of Kinsey Drive. The California Science Center and School at Exposition Park, the African American Museum and Pardee Way at USC will be conveniently accessible from this station. The Los Angeles Coliseum will also be accessible from this station.

An important pedestrian connection at Trousdale Parkway and Exposition Boulevard would be maintained with the implementation of the Exposition Transit Parkway. Included, as part of this pedestrian connection is Trousdale Parkway, which connects the LRT alignment in the east-west direction, Trousdale Parkway to the north and the Rose Garden of Exposition Park to the south. Trousdale Parkway and the trackway, landscaping, public art and other elements of the Exposition Transit Parkway are designed as an integrated concept to maintain visual continuity between USC and Exposition Park.

The USC/Exposition Park Station and LRT alignment will be designed to be unobtrusive and would serve to link Exposition Boulevard to Exposition Park. The Exposition Transit Parkway and Trousdale Parkway near this station would be in full view of the Rose Garden at Exposition Park.

A new station will be located along the alignment west of Trousdale Parkway, towards Vermont Avenue. This station will be located on both sides of Vermont Avenue. The eastern portion of Vermont Station will feature a visual connection and access to the new addition of the Museum of Natural History. The western portion of Vermont Station will have access and a visual connection to the Hasjid Omar Ibn Al-Khadtadar Mosque. The bikeway alignment of the Project begins at this point west of Vermont Avenue near the western platform of Vermont Station.

**Mid-Corridor.** The Mid-Corridor is the segment of the LPA running from Vermont Station to La Cienega Station. From the Vermont Station traveling west, the LRT would run in a ballasted trackway within a landscaped median to Gramercy Place. The LRT would also operate from Vermont Station to Gramercy Place without the use of crossing gates. From Gramercy Place to La Cienega Station, either gated operations or transit signal priority operations would be utilized. Pedestrian safety features and linkages from stations and crossings to neighborhood destinations are featured in this segment.

From Vermont Station to Gramercy Place, a dual trackway will continue by widening the existing ROW by approximately 12 to 16 feet. This will require the removal of one lane of traffic in each direction on Exposition Boulevard. On-street bike lanes will also be implemented. Landscaping on both north and south sides of the ROW median would be implemented, so that a strong vertical corridor of trees and a continuity of the green link are maintained from the Exposition Transit Parkway at USC and Exposition Park. The landscaping would also be designed to maintain pedestrian, train and vehicular safety. There will be a new station located on both sides of Western Avenue. There is a transition at Gramercy Place, where the lanes of Exposition Boulevard north and south combine into one boulevard. Exposition Boulevard south will transition into both Rodeo Road and Exposition Boulevard west of Gramercy Place. The LRT alignment crosses through this transition at-grade using city traffic signal controls. There will be a transition for bike lanes to continue on Exposition Boulevard, west of Gramercy Place.

The LRT alignment west of Gramercy Place will be located in a side running configuration of the ROW. At this point, the ROW is located south of Exposition Boulevard. This side running LRT alignment
would continue to the Crenshaw Station. The green link of the Exposition Transit Parkway will continue along portions of the ROW, where available area exists for landscaping. The trackway in this part of the alignment is ballasted with concrete grade-crossing panels at crossings. Crossing gates are located at Arlington Avenue and at all other crossings to Crenshaw Boulevard.

Immediately east of Crenshaw Boulevard, the alignment transitions from a side running configuration back to a median running configuration, where the ROW is still south of Exposition Boulevard, but north of another street called Exposition Place. Bike lanes will continue in both east and west directions on Exposition Boulevard. There will be a new station on both sides of Crenshaw Boulevard. The LRT will be crossing Crenshaw Boulevard using traffic signals with transit priority.

Immediately west of Crenshaw Boulevard, the alignment continues in a median running configuration within the ROW to Farmdale Avenue. ROW crossings at this part of the alignment will have crossing gates. The green link of the Exposition Transit Parkway will continue on the sides of the ballasted trackway in the ROW median. Landscaping in the form of berms and terraced planting and street trees will act as a buffer between the LRT alignment and residential areas. The bikeway will continue on Exposition Boulevard in both east and west directions to both La Brea Avenue and Harcourt Avenue. The surface of the grade crossing will be concrete panels.

From Farmdale Avenue to Rimpau Boulevard, the LRT alignment will again be in a side running configuration. Near Rimpau Boulevard, the LRT alignment would transition to an elevated bridge structure over La Brea Avenue. An existing northern driveway providing access to the Rancho La Cienega Sports Center would be relocated to maintain access to the Center from Exposition Boulevard. The on-street bike lanes on Exposition Boulevard would transition to Jefferson Boulevard at Harcourt Avenue. Bike lanes will also connect to the entry plaza of La Brea Station.

The elevated structure over La Brea Avenue would be approximately 1,870 feet in length, with directly fixated and/or ballasted dual trackway. A new aerial station will be located on the elevated structure over La Brea Avenue. The eastern end of the elevated structure will have landscaping designed so that the ROW landscaping visually merges with the sides of the elevated structure. The western portion of the elevated structure and aerial station would be designed so that tall landscaping is planted in front of multifamily and single-family residential areas. An opaque wall would be constructed north of the landscaping to provide further screening facing residential areas. The elevated structure would span westerly over La Brea Avenue and would reach ground level at Alsace Avenue. Landscaping would be used on a portion of the elevated structure facing Jefferson Boulevard. The LRT alignment would then remain at-grade in a side running configuration south of Jefferson Boulevard in a ballasted trackbed. Several private driveways and crossings with grade-crossing panels and crossing gates would be constructed across the LRT trackway to maintain access for existing businesses. Bike lanes will run parallel to the LRT alignment on Jefferson Boulevard from Harcourt Avenue to La Cienega Boulevard, and then onto Ballona Creek.

Near Clyde Avenue, the LRT alignment would rise in an elevated structure to cross La Cienega Boulevard. A directly fixated and/or ballasted dual trackway would be accommodated in the elevated structure. The elevated structure would span over La Cienega and would feature an aerial station spanning over La Cienega Boulevard. The elevated structure will use a combination of columns and landscaped Mechanically Stabilized Earth walls immediately adjacent to Jefferson Boulevard.

**West End.** The West End is the segment of the LPA running from La Cienega Station to Venice/Robertson Station. The LRT alignment would use a bridge structure to cross over La Cienega Boulevard, along with an aerial station. A new elevated structure containing the LRT guideway would cross over Ballona Creek. National Boulevard would be realigned and relocated so that both directions of travel are located south of the LRT ROW west of Ballona Creek. The LRT alignment would cross the Jefferson Boulevard/National Boulevard intersection at-grade. For further discussion on this grade separation design, see Design Options to the LPA in this chapter.
A portion of the existing National Boulevard from Ballona Creek to Hayden Avenue would be vacated as part of the Project. An existing crossing at Hayden Avenue, National Boulevard and the ROW would be eliminated. A portion of National Boulevard south of the ROW would be widened into the existing Metro ROW to accommodate National Boulevard running in both directions. A segment of existing National Boulevard north of the ROW from Ballona Creek to Washington Boulevard would be converted into an off-street bike path. This segment includes an existing vehicular bridge crossing Ballona Creek, which would also be converted to a bicycle bridge. The LRT alignment would also cross Ballona Creek on a new bridge. An existing historic Pacific Electric Railway bridge located over Ballona Creek would be maintained. The Exposition Transit Parkway calls for the LRT alignment from Ballona Creek or Fay Avenue to National Boulevard to be located at-grade in a wide landscaped ROW with a trackway shielded by landscaped berms and terracing along residential areas past Syd Kronenthal Park. The trackway will also be located in a graded parkway between Ballona Creek or Fay Avenue to Wesley Street. The bike path would be located within a row of trees and landscaping to provide a buffer between the LRT alignment and residential areas (Figure 2.4-16). The landscaped berms would face the ballasted LRT trackway so that these berms act as screening of the trackway from residential areas as well as acting as a sound buffer against LRT noise. These landscaped berms undulate visually in a park-like setting so that there would not be a visual impact of a continuous wall dividing communities north and south of the LRT ROW in Culver City. The LRT would run in a combination of gated and transit signal priority operations in Culver City.

The LRT alignment would cross Washington Boulevard at-grade on concrete crossing panels and continue to the new interim western terminal at Venice/Robertson Station. The off-street bike path would transition at National and Washington Boulevard, and continue as a bikeway promenade through the Venice/Robertson Station area and terminate north of Venice Boulevard at the Exposition ROW with connections to the Venice Bike Lane and future planned bike paths on the ROW north of Venice Boulevard.

Within the West End Segment, Metro owns an easement located in the Hayden Track, located south of the Exposition ROW near Hayden Avenue in Culver City. This easement has been included as part of the Exposition ROW ownership title purchased by the Agency in 1990. Parts of the easement run in a “spur” within Hayden Track. This spur begins west of Hayden Avenue, moving south to cross Hayden Avenue, then traveling east to terminate at Eastham Street. In coordination with the implementation of the Mid-City/Exposition LRT Project, Metro would maintain and plan the parcels within the Hayden Tract Spur for local transportation uses in the future.
Segment of National Boulevard to be vacated for bike path
MTA Right-of-Way to remain for LRT and landscaping
Segment of National Boulevard to be vacated for LRT
Segment of MTA Right-of-way for widening of National Boulevard to two-way operations.
Existing National Boulevard Right-of-Way
Elimination of Hayden crossing
At-Grade Crossings

The LPA alignment will cross existing streets with a majority of the crossings remaining at-grade. Street crossings are listed below:

<table>
<thead>
<tr>
<th>TABLE 2.4-1: LOCALLY PREFERRED ALTERNATIVE LRT GRADE CROSSINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cross Street</strong></td>
</tr>
<tr>
<td><strong>DOWNTOWN LOS ANGELES CONNECTION</strong></td>
</tr>
<tr>
<td>7th St./Metro Center (below grade)</td>
</tr>
<tr>
<td>Existing below grade segment between 7th St./Metro Center and 12th St.</td>
</tr>
<tr>
<td>Existing Crossings between 12th Street and Washington Blvd. with Metro Blue Line</td>
</tr>
<tr>
<td>Washington Blvd.</td>
</tr>
<tr>
<td>Grand Station</td>
</tr>
<tr>
<td>Existing Crossing at Olive Street with Metro Blue Line</td>
</tr>
<tr>
<td>Hill St.</td>
</tr>
<tr>
<td>21st/Hill St. Station</td>
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<tr>
<td>W. 22nd</td>
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<tr>
<td>W. 23rd</td>
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<tr>
<td>W. 24th</td>
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<td>W. 25th</td>
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<td>W. Adams</td>
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<td>W. 27th</td>
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<td>W. 28th</td>
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<td>W. 29th</td>
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<tr>
<td>W. 30th</td>
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<tr>
<td>W. 31st</td>
</tr>
<tr>
<td>W. 32nd</td>
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<tr>
<td>Jefferson Blvd.</td>
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<tr>
<td>Exposition ROW</td>
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<tr>
<td>S. Grand Ave</td>
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<tr>
<td>Hope St.</td>
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<tr>
<td>110 Freeway</td>
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<tr>
<td>Flower St.</td>
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<tr>
<td>Figueroa St.</td>
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<tr>
<td>Pardee Way</td>
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<tr>
<td>Trousdale Crossing (proposed Trousdale Parkway)</td>
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<tr>
<td>Menlo Ave.</td>
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<tr>
<td>Vermont Station</td>
</tr>
<tr>
<td><strong>MID-CORRIDOR</strong></td>
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<tr>
<td>Wisconsin St.</td>
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<tr>
<td>S. Catalina St.</td>
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<tr>
<td>Budlong Ave.</td>
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<tr>
<td>Raymond Ave./a/</td>
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<tr>
<td>Normandie Ave.</td>
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<tr>
<td>Halldale Ave.</td>
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<tr>
<td>Denker Ave.</td>
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<tr>
<td>La Salle Ave. (north of ROW)</td>
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<tr>
<td>Harvard Blvd. (north of ROW)</td>
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<tr>
<td>Hobart Blvd.</td>
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<tr>
<td>Western Station</td>
</tr>
<tr>
<td>Gramercy Pl. (south of ROW)</td>
</tr>
<tr>
<td>Arlington Ave.</td>
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<tr>
<td>2nd Ave.</td>
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<tr>
<td>3rd Ave.</td>
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<tr>
<td>7th Ave.</td>
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<tr>
<td>10th Ave.</td>
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<tr>
<td>11th Ave.</td>
</tr>
<tr>
<td>Crenshaw Station</td>
</tr>
</tbody>
</table>
TABLE 2.4-1: LOCALLY PREFERRED ALTERNATIVE LRT GRADE CROSSINGS

<table>
<thead>
<tr>
<th>Cross Street</th>
<th>Route Street</th>
<th>Crossing Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buckingham Rd.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Farmland Ave.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Aerial segment between Rimpau Blvd. and Alsace Ave., including La Brea Station</td>
<td>Exposition ROW</td>
<td>N/A</td>
</tr>
<tr>
<td>2 Private Crossings between Dunsmuir Ave. and Hauser Blvd.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Carmona Ave.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Aerial segment between Clyde Ave. and La Cienega Blvd.</td>
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<td></td>
</tr>
</tbody>
</table>

**WEST END**

<table>
<thead>
<tr>
<th>Cross Street</th>
<th>Route Street</th>
<th>Crossing Closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerial segment between La Cienega Blvd. to Jefferson Blvd., including La Cienega Station</td>
<td>Exposition ROW</td>
<td>N/A</td>
</tr>
<tr>
<td>Jefferson Blvd.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Wesley St./a/</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>National Blvd.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Washington Blvd.</td>
<td>Exposition ROW</td>
<td></td>
</tr>
<tr>
<td>Venice/Robertson Station</td>
<td>Exposition ROW</td>
<td></td>
</tr>
</tbody>
</table>

/a/ Pedestrian crossing only

Note: Route Street listed above are for Semi-Exclusive LRT alignment.

N/A: Not Applicable due to grade separation or crossing removal. Crossings not listed but occur along the table’s Route Street are former crossings that have been grade separated or removed.

RIRO: Right-in-right out condition for the cross street due to street closure.

**SOURCE:** Metro

At-grade and grade separated crossings have been determined using the adopted Metro Grade Crossing Policy for LRT. This policy provides a uniform approach to analyze crossings for feasibility of LRT operations at-grade. See separate discussion of the Grade Crossing Policy and the evaluation of the proposed Project using this Policy in Section 3.2 Traffic. The City of Los Angeles, Culver City, Caltrans and the California Public Utilities Commission (CPUC) made input regarding crossing evaluation using this Policy. For the LPA, Agency Board actions have been made based on recommendations from the evaluation of the proposed Project using the Grade Crossing Policy that the alignment segment at La Brea Avenue would be grade separated. The La Cienega segment of the alignment is shown grade separated in the Draft EIS/EIR and is also part of all Jefferson Boulevard Design Options described under “Design Options to the LPA” in this Chapter. Design options for other grade separations are also described in the same section. For a more detailed discussion of crossings and analysis, see Section 3.2 Traffic and Appendix E.

Ultimately, crossings, which have been listed at-grade or grade separated are governed by the design requirements of the California Public Utilities Commission (CPUC) during Final Design. Prior to this design phase, a comprehensive Hazard Analysis would be conducted with field diagnostic reviews with affected parties that will define the crossing design during the Final Design phase of the proposed Project.

**Pedestrian Crossings and Linkages**

Due to the nature of light rail transit in urban environments, pedestrian crossings are an integral part of the planning and design of an LRT system. High volumes of pedestrian traffic travel to and from LRT stations. In addition, the LRT system itself is integrated with urban intersections. The LPA alignment traverses various areas with high levels of pedestrian traffic. **Figure 2.4-17** presents the numerous pedestrian generators along the corridor. Some of the more notable pedestrian activity centers include schools, parks, places of worship and other neighborhood links.
1. Downtown Culver City
2. Hayden Tract
3. Syd Kronenthal Park & Echo Horizon School
4. Rancho Cienega Park
5. Dorsey High School
6. God in Christ Church
7. Foshay Learning Center
8. Masjid Umar Mosque
9. USC Eastside
10. Museums at Exposition Park
   a) California Science Center
   b) African-American Museum
   c) Natural History Museum
   d) Aero-space Museum
11. Exposition Park
12. Coliseum/Sports Arena
13. Orthopaedic Hospital
14. Trade Tech College
15. Staples Center
16. 7th Street Marketplace
17. USC Southside
18. USC Village Center
19. Fast Food Restaurants (Fat Burger, La Taquiza, Yoshinoya Beef Bowl, King Khan Mongolian BBQ, Tapioca Express, Red Dragon, Mikoshi, Jack in the Box, Carl's Jr, Denny's, Chano's Drive Inn, El Pollo Loco, Nin O One Club, etc)
20. Open Space at Rodeo Road & Cimarron Street
21. Baldwin Hills Recreation Center
22. Jesse Brewer Park
23. 38th and Normandie Park
24. Westside Park
25. Mount Saint Mary's College
26. Saint Vincent's School
27. John Adams Middle School
28. Central Middle School
29. USC Performing Arts Magnet School
30. Science Center School
31. Weemes Elementary School
32. Al-Madinah School
33. Hamilton High School
34. Turning Point School
35. Higuera Neighborhood
36. California Hospital Medical Center

LEGEND:
- Low (<500 trips generated daily)
- Medium (<1,000 trips generated daily)
- High (>1,000 trips generated daily)


FIGURE 2.4-17
GENERALIZED PEDESTRIAN ACTIVITY
In order to accommodate pedestrian traffic, pedestrian crossings must be planned and designed to balance the needs of pedestrian mobility and pedestrian safety. This includes providing an adequate amount of designated pedestrian crossings that are equipped with pedestrian safety treatments. The design of the Mid-City/Exposition LRT Project has taken into account the need to accommodate for pedestrian traffic and includes safety treatments specific to the needs of pedestrian traffic.

The ability for pedestrians to cross the trackway safely is dependent on several factors including:

- Pedestrian awareness of the crossing;
- Pedestrian path across the trackway;
- Pedestrian awareness of approaching LRT vehicle, and ability to see the vehicle; and
- Pedestrian understanding of the potential hazards at grade crossings.

Each of these factors has been accounted for along the LPA alignment and pedestrian safety treatments have been included in the design of the Project to accommodate pedestrian traffic. Specifics on the types of pedestrian treatments are defined in the Integrated Corridor Features section of this Project description and discussed further in Section 4.12 Safety and Security.

**Design Options to the LPA**

Design options to the current LPA are also being considered. These options are located in the following segments of the alignment:

**Downtown Los Angeles Connection.** A Hill Street Couplet Design Option and a Flower Street Design Option present alternative locations for the Downtown Los Angeles Connection of the alignment (Figure 2.4-18).

**Hill Street Couplet Design Option** - This option would have the LRT alignment branch off of the existing Metro Blue Line alignment on Flower Street in a couplet arrangement using 17th and 18th Streets next to the I-10 (Santa Monica Freeway) to join Hill Street. The couplet arrangement would have LRT trains bound for 7th Street/Metro Center to branch off of Hill Street at 17th Street north of the I-10 (Santa Monica Freeway). This single-track branch would join with the existing Flower Street Metro Blue Line alignment north of the I-10 (Santa Monica Freeway) on-ramp. LRT trains outbound from 7th Street/Metro Center would branch off of the Flower Street Metro Blue Line alignment at 18th Street south of the I-10 (Santa Monica Freeway). This single-track branch would cross in front of the I-10 (Santa Monica Freeway) Grand Avenue off-ramp to join with Hill Street. The LRT alignment would proceed southbound on Hill Street. Crossing gates would be installed at the I-10 (Santa Monica Freeway) off-ramp and at Grand Avenue to control traffic and to allow access off the freeway. Additional crossing gates would be installed at the intersections of 17th Street and Hill Street, 18th Street at Hill Street, 17th Street at Olive Street, 18th at Olive Street, 17th Street and Grand Avenue and 18th Street and Grand Avenue.

**Flower Street Design Option** - This option would have an LRT alignment beginning at 7th Street/Metro Center, sharing the existing dual trackway with Metro Blue Line to Washington Boulevard. The Project’s alignment would then continue south past Washington Boulevard on the eastside of Flower Street, to a point south of Jefferson Boulevard. An existing Flower Street bridge would be retrofitted to accommodate the LRT alignment, where the bridge crosses over the I-110 (Harbor Freeway). Landscaping, public art and other transit parkway improvements would complement the LRT alignment in an effort to mitigate and improve the east side of Flower Street. New stations would be located at 23rd Street/Flower Street and at Jefferson Boulevard/Flower Street. The alignment would then enter a portal to an undercrossing to avoid conflicts with the I-110 (Harbor Freeway) off-ramps, traffic operations conflicts at Exposition Boulevard and Figueroa Street, and traffic conflicts.
from future parcel development along Flower Street south of Jefferson Boulevard. Three sub-options for the undercrossing starting at Figueroa Street and Exposition Boulevard are included in the Flower Street Design Option:

- **USC/Exposition Park Undercrossing** - The LRT trackway would enter a portal to transition to below-grade just south of Jefferson Boulevard. This undercrossing option would run for approximately 2,290 feet in length and would be fully depressed for approximately 1,250 feet. The LRT trackway will emerge to grade just west of Pardee Way before Trousdale Parkway. This option does not preclude an optional USC/Exposition Park Station that would be located west of Kinsey Drive just east of Trousdale Parkway. The Amgen Center for Science Learning is located on top of a large berm along the south side of Exposition Boulevard, across from the portal. There are no direct pedestrian access points to the Center across from the portal. At-grade pedestrian and vehicular access is maintained for left turns from eastbound Exposition Boulevard to Pardee Way going north into the USC Campus. Full pedestrian access is maintained at Trousdale Parkway and the Rose Garden facing Exposition Boulevard.

  This option would be covered for 600 feet of its total length. The remainder of the trackway would run in the median of Exposition Boulevard in an open undercrossing approximately 22 feet below grade. Bridge crossings would be provided at Pardee Way, Figueroa Street, and Flower Street. A vertical safety wall and screen that is approximately five feet in height would be constructed on either side of the open undercrossing to prevent pedestrians and vehicles from accessing the trackway and to screen the depressed guideway from view. The design of the safety wall and screen would be consistent with the aesthetic of the Exposition Transit Parkway. Landscaping would be planted, where feasible, in the median adjacent to the safety wall. The safety wall and screen would be erected from Flower Street to east of Pardee Way. The safety wall would begin again at the LRT portal west of Pardee Way, just west of Kinsey Drive, extending a length of approximately 500 feet. If the optional USC/Exposition Park Station is constructed, the height of the safety wall adjacent to the station platforms would be three feet, as the station platforms will be at sidewalk level in the Exposition Boulevard median.

- **USC/Exposition Park Modified Undercrossing** - This design option would follow the same alignment as the USC/Exposition Park Undercrossing described above. The entire fully-depressed section of the undercrossing however, will be covered. Outside of the LRT portal, the trackway would be open to allow the LRT alignment to come back to grade. Safety walls and screens would line the LRT portal west of Pardee Way to a point immediately west of Kinsey Drive. The length of the safety wall would be approximately 500 feet in length. Under this option, the USC/Exposition Park station would not be constructed. From the Jefferson station, the next station west would be the Vermont Station.

- **USC/Exposition Park Extended Undercrossing** - This design option would also follow the same alignment as the two previous options. However, the undercrossing would be extended an additional 1,070 feet to the west as compared to the shorter undercrossings in the above options. The undercrossing would also be covered except for the transitions to grade at each end. The LRT portal would be located west of the proposed Trousdale Parkway, within the Exposition Boulevard median. Safety walls and screens would line the LRT portal to grade alignment at Watt Way. The safety wall would be approximately five feet and would span approximately 500 feet from LRT portal west of Trousdale Parkway to Watt Way. At-grade pedestrian and vehicular access would be maintained at Watt Way. Under this option, the USC/Exposition Park station would not be constructed. From the Jefferson station, the next station west would be the Vermont Station.
**Length of Trackwork by Design Option** - The design option selected would affect the total length of the Mid-City/Exposition LRT alignment. The length of trackwork would be as follows:

- **LPA** - New Track: 7.9 miles, Blue Line (existing) track: 1.6 miles;
- **Hill Street Couplet Design Option** - New Track: 8.4 miles, Blue Line (existing) track: 1.1 miles;
- **Flower Street Design Option** - New Track: 7.6 miles, Blue Line (existing) track: 1.3 miles.

**West End**. The following design options to the LPA are considered:

**La Cienega Station Parking Options** - There are two options for parking at the La Cienega Station. Under the LPA, a parking facility and transit center would be constructed on the southeast corner of La Cienega and Jefferson Boulevards. This is the site of a City of Los Angeles East Central Interceptor Sewer site. Two other options exist to accommodate parking at La Cienega Station:

- **Southwest Corner Option** - The Southwest Corner option would construct a 530-space parking facility with transit center. The parking facility would provide a parking structure to meet expected initial and year 2020 parking demand at the La Cienega station. The transit center will include both off-street and on-street transit centers as part of this design option. Figure 2.4-19.

- **No Parking Option** - The No Parking option would shift the La Cienega Station parking demand to other station locations where parking may be provided. For example, the demand could be shifted to the Venice/Robertson Station, La Brea Station or Crenshaw station. At Crenshaw station, a new parking structure could be provided within the station vicinity, to meet this demand.

**Jefferson Boulevard Design Options** - Figure 2.4-20 illustrates three options for the LRT alignment to cross Ballona Creek. All options involve a grade separation and an aerial station at La Cienega Boulevard, which was considered in the Draft EIS/EIR. Option A was considered in the Draft EIS/EIR and is no longer considered in this document due to potentially severe visual impacts. Option B and the Medium Bridge Design Options would realign National Boulevard with Jefferson Boulevard, so that the existing Hayden Avenue crossing is removed in Culver City. These bridge options would also propose to convert the existing National Boulevard Bridge north of the ROW over Ballona Creek into a bicycle only bridge. Both bridge options would allow a left turn from northbound Jefferson Boulevard to westbound National Boulevard.

Option B is considered part of the Locally Preferred Alternative, as it would provide an alignment with fewer impacts in Culver City. Concerns, however, regarding at-grade LRT operations at Jefferson Boulevard east of Ballona Creek together with traffic and bikeway conflicts at the same crossing have resulted in the consideration of another Jefferson Boulevard Design Option, Option C Medium Bridge. The Medium Bridge Design Option calls for a longer bridge structure than the LPA bridge, which will span over Jefferson/National Boulevards, La Cienega Boulevard and Ballona Creek. This would result in a structure approximately 2,970 feet long. On the east side of La Cienega Boulevard, the structure would return to grade near Clyde Street; on the west side of La Cienega Boulevard, the structure would come to grade west of Ballona Creek and east of Fay Avenue. An existing historic Pacific Electric Railway bridge located over Ballona Creek would be maintained. See Section 4.13 Historic, Archaeological for further description.
Option A - Long Bridge
Initial Concept in Draft EIS/EIR. Eliminated from further consideration in the Final EIS/EIR.

Option B - Preliminary Engineering Short Bridge
Locally Preferred Alternative

Medium Bridge Design Option

Vertical elevations not to scale

SOURCE: Terry A. Hayes Associates LLC, 2005
Mitigation of traffic impacts related to the relocation of Metro Bus Division 6 would require the widening of Jefferson Boulevard to provide an adequate number of traffic lanes. Two options for widening Jefferson Boulevard exist, to the north or south of its current position. The widening options for Medium Bridge are summarized as follows:

- **North Widening** - This option would acquire a parcel of land at the northwest corner of Jefferson and La Cienega Boulevards in order to accommodate additional turning and through lanes on Jefferson Boulevard. Jefferson Boulevard would be expanded to the north of its existing position, and the existing businesses on this parcel would be displaced. Except where the guideway would run directly over the street, the structure would be supported by a structurally-engineered fill wall.

- **South Widening** - This option would use Metro-owned ROW land to widen Jefferson Boulevard to the south of its current position. No businesses would be displaced by the south widening option. The guideway structure would be shifted to the south side of the Metro-owned ROW. The bridge portion of the structure would be extended an additional 300 feet to the west. An eastbound right-turn lane on Jefferson Boulevard would be constructed under the bridge.

**Venice/Robertson Station Design Options** - The City of Culver City has expressed concern that the addition of at-grade LRT operations at Washington and National Boulevards would significantly hamper traffic operations at the intersection of these streets. In addition, mitigating the traffic impacts of the LPA at this intersection would result in a significant additional cost to construct the Project beyond identified funding. To address these issues, five design options for the terminus station at Venice and Robertson Boulevards are considered in this Final EIS/EIR. Four of the proposed options feature at-grade stations that would occur on the east side of the Washington and National Boulevard intersection. The fifth option would grade separate the LRT trackway from the Washington National Boulevard intersection and construct an aerial station at the same site considered for the LPA Venice/Robertson station. The Venice/Robertson Design Options consist of the following:

- **ROW Design Option** - This option would situate the Venice/Robertson Station in the Metro-owned ROW where Wesley Street dead ends at the ROW and National Boulevard. It would be an at-grade, center platform station. A crosswalk at the east end of the station would provide pedestrian access from south of National Boulevard to the station. Pedestrian access to the east side of the station would also continue to Wesley Street. A Class I bikeway would run along the north side of the station and give way to a Class III bikeway on Wesley Street.

- **North of ROW Design Option A** - Under this option, the Venice/Robertson station would be located north of the ROW directly on the northeast corner of the Washington and National Boulevard intersection. This design option proposes an at-grade, center platform station. Implementation of this design option would displace a roofing company located on the proposed site. Crosswalks at the west end of the station would provide pedestrian access between the station, Washington Boulevard and National Boulevard. A crosswalk would also be located south of the station to provide access from south of National Boulevard to the station along Wesley Street. A Class I bikeway would border the north side of the station and terminate at Washington Boulevard.

- **North of ROW Design Option B** - Under this option, the Venice/Robertson Station would be located north of the ROW on the parcels occupied by a sound recording studio and auto-body shop on Wesley Street. This design option proposes an at-grade station. A crosswalk at the east end of the station would provide pedestrian access from south of National Boulevard to the station. Pedestrian access to the station would be provided from Wesley Street. A Class I bikeway would run along the north side of the track and give way to a Class III bikeway on Wesley Street.
• North of ROW Design Option C - Under this option, the Venice/Robertson Station would be located north of the ROW on the parcels occupied by an auto-body shop and two vacant lots on the east side of Wesley Street. This design option proposes an at-grade station. A crosswalk at the east end of the station would provide pedestrian access from south of National Boulevard to the station. Pedestrian access to the station would also be provided from Wesley Street. A Class I bikeway would run along the north side of the track and connect to a Class III bikeway on Wesley Street.

• Aerial Station Design Option - This option proposes an aerial, center-platform station. The station would be located at the same site as the LPA Venice/Robertson station. The LRT trackway would begin to grade separate east of the Washington and National Boulevard intersection between Caroline Avenue and Helms Avenue. The trackway would achieve its full height of approximately 20 feet at Wesley Street. As the aerial station would elevate the LRT trackway east of the Washington and National Boulevard intersection, operational conflicts at this intersection would be avoided. Figure 2.4-21 displays a profile of the aerial station and grade separation.

2.4.2.1.1b Stations

Standardized Station Design

Stations for up to three-car train capacity (300-foot platforms) will be provided along the LRT route. The Project’s LRT system will be designed to allow for one-, two-, or three-car trains in accordance with the variations in demand over time. Initial year service is expected to be provided by a light rail vehicle fleet of up to two-car trains. Stations will feature contemporary designs and the layout and materials used will be designed to be consistent with the overall Exposition Transit Parkway theme. A typical station is shown on Figure 2.4-22.

Design Goals and Objectives

Station design goals and objectives include:

• An architecture based on a singular design language to provide continuity to the overall alignment while allowing for variation at each station;
• Developing a kit-of-parts for the station architecture that can be combined in different ways to address a variety of needs along the station platform (full rain protection or shade, partial shade and openness);
• Applying the kit-of-parts to create a variety that can be used at both Neighborhood and Gateway stations;
• Developing an architecture expressive of movement and place;
• Integrating sustainability into the design of the station architecture; and
• Providing architectural continuity while allowing for the unique character of neighborhoods along the Exposition Transit Parkway to be expressed.

The stations represent special places along the alignment and signal a point of entry into the light rail system. The approach to station design emerges from the larger concept for the Exposition Transit Parkway.
VENICE/ROBERTSON AERIAL STATION DESIGN OPTION AND GRADE SEPARATION

FIGURE 2.4-21

SOURCE: Terry A. Hayes Associates LLC, 2005
The typical LRT station on the Exposition corridor would be a 300-foot long center platform (pictured above) or a side platform (pictured below). Amenities include a canopy, lighting, paving, maps and schedules, kiosks, variable message signs, landscaping, and public art.
Station Types

The Exposition Transit Parkway’s standardized station design types include the following: 1.) At-grade center platform station, 2.) At-grade side platform station, 3.) Aerial center platform station. See Appendix H and Figure 2.4-22 for further descriptions of station types and variants of station types. See Table 2.4-2 for Station locations.

Station Locations

The following table illustrates the locations of all stations along the alignment of the LPA.

<table>
<thead>
<tr>
<th>Station Name</th>
<th>Station Program</th>
<th>Station Type</th>
<th>Station Area Features</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOWNTOWN LOS ANGELES CONNECTION</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7th St./Metro Center</td>
<td>Existing Los Angeles Station</td>
<td>Eastern terminal, side platform, underground</td>
<td>Minor station upgrades</td>
</tr>
<tr>
<td>Pico Station</td>
<td>Existing Los Angeles Station</td>
<td>At-grade center platform</td>
<td>Minor station upgrades</td>
</tr>
<tr>
<td>Washington Blvd/Grand Ave. Station</td>
<td>Existing Los Angeles Station</td>
<td>At-grade center platform</td>
<td>Minor station upgrades</td>
</tr>
<tr>
<td>21st St./Hill St. Station</td>
<td>Neighborhood Station</td>
<td>At-grade split and side platform</td>
<td>New Station</td>
</tr>
<tr>
<td>USC/Exposition Park /a/</td>
<td>Gateway Station</td>
<td>At-grade center platform</td>
<td>New Station</td>
</tr>
<tr>
<td>Vermont Station</td>
<td>Neighborhood Station</td>
<td>At-grade split and side platform</td>
<td>New Station</td>
</tr>
<tr>
<td><strong>MID-CORRIDOR</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Western Station</td>
<td>Neighborhood Station</td>
<td>At-grade split and side platform</td>
<td>New Station</td>
</tr>
<tr>
<td>Crenshaw Station</td>
<td>Gateway Station</td>
<td>At-grade split and side platform</td>
<td>New Station, Parking Facilities</td>
</tr>
<tr>
<td>La Brea Station</td>
<td>Neighborhood Station</td>
<td>Aerial station side platform</td>
<td>New Station</td>
</tr>
<tr>
<td><strong>WEST END</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>La Cienega Station</td>
<td>Gateway Station</td>
<td>Aerial station, center platform</td>
<td>New Station, Parking Facilities, Transit Center</td>
</tr>
<tr>
<td>Venice/Robertson Station</td>
<td>Gateway Station</td>
<td>Interim western terminal, at-grade center platform</td>
<td>New Station, Parking Facilities, Transit Center, CMC</td>
</tr>
</tbody>
</table>

/a/ Optional Station under the Flower Street Design Option.

SOURCE: Los Angeles County Metropolitan Transportation Authority

Station Program

The following program requirements apply to all station types previously listed. Further development of the Station Program would be done prior to Final Design:

- Platform-minimum of 270-foot long; platform width will be 12 feet for side platform, 16 feet for center platform, and 26 feet for center platform aerial station
- Ticketing area – entry zone for ticket vending, information display cases and telephone
- Entry Installation – Lead Artist-directed station installation
- Canopy – overhead protection meeting design criteria requirements; a photovoltaic system maybe included as part of the canopy; see modular canopy design below
- Signage & graphics – station identification, regulatory/security signage, wayfinding graphics, variable message signs (VMS) at stations
- Bicycle facilities – bicycle racks and lockers (except at 7th St./Metro Center), and where appropriate a clean mobility center
- Station amenities – provide seating at waiting area, railings where required and trash receptacles
2.4 Description of LRT Build Alternative Considered

- Security – closed circuit television cameras at station, passenger assistance telephone, public address system
- Landscaping – robust drought tolerant planting
- Lighting – illuminated entrance, platform and other major public areas
- Pedestrian Linkages – see Gateway and Neighborhood Station program, Pedestrian Linkages and station area definitions
- Transit Centers – On Street and/or Off Street Transit Centers maybe included; see Transit Center program
- System Facilities – Communication and Signal Building

Interim Terminal Station requirements

The Venice/Robertson Station also includes a Control Office Building, which meets the design criteria requirements of an Interim Terminal Station

Aerial Center Platform Station Vertical Circulation requirements

Vertical circulation elements such as stairs and elevators are required for Aerial Center Platform stations. This station program would not preclude escalators as part of this station type, to be consistent with Agency design criteria. See Preliminary Engineering Design for further description.

Modular Canopy Design

A modular canopy design concept is featured as part of the proposed Project. The concept involves a systematic, uniform canopy design concept, featuring a menu of at least four canopy concepts. See Appendix H for further description. One or more of these canopy concepts would be developed during Final Design. Special canopy designs maybe developed as part of an air rights joint use development in a Gateway Station.

Clean Mobility Center

A Clean Mobility Center (CMC) is a flexible and integrated multi-modal facility containing a bicycle sharing and bicycle parking facilities and a car sharing facility. For this Project, a CMC can be provided as part of a Gateway Station program. A CMC assigned to a Gateway Station program would include all bicycle facilities assigned to the station as part of the CMC. Refer to Appendix H for program requirements.

Transit Centers

Transit Centers are bus transit facilities located at LRT stations. Transit Center facilities allow for the transfer of passengers from bus transit to another mode, facilitating circulation flow for bus vehicles and organize passenger movements in a comfortable, convenient manner. For the proposed Project, Transit Centers can be located at Neighborhood Stations or Gateway Stations. There are two types of Transit Centers defined for the proposed Project: an On-Street Transit Center and an Off-Street Transit Center. Gateway Stations would feature both On-Street and Off-Street Transit Centers as part of the Gateway Station program. See Appendix H for On-Street and Off-Street Transit Centers program requirements. See Tables 2.4-2 and 2.4-4 below for Transit Center locations and features at LRT stations.
<table>
<thead>
<tr>
<th>Transit Center Location at Mid-City/Exposition LRT Station</th>
<th>Station Element</th>
<th>Transit Center Type</th>
<th>Transit Center Location</th>
<th>Transit Center Element</th>
</tr>
</thead>
</table>
| La Cienega Station                                        | Gateway Station | On- and Off-Street| **On La Cienega Blvd., within the Station Site area:**  
North of Jefferson Blvd., nearside, alighting for southbound buses, curb space for five stops  
South of Jefferson Blvd., Far side dedicated for Metro Rapid southbound  
East Curb  
South of Jefferson Blvd., nearside boarding and alighting with curb space for four stops and a dedicated curb space for a northbound Metro Rapid stop  
Division 6 at Jefferson Blvd., Bus layover at West Los Angeles Transportation Center  
Ground floor of Parking Facility to be used as Off-street Transit Center | Provide at least one bus stop northbound and southbound to allow for articulated bus operations  
Layover and operator’s restroom will occur nearby West Los Angeles Transportation Center  
Provide service identity, service maps, timetables, lighting, seating, phones and real-time service information  
Provide customer protection (canopy waiting areas)  
Provide recommended Pedestrian Safety Features at this Station  
Provide shade trees at bus stops |
| Venice/Robertson Station                                  | Gateway Station | Off-street         | **Next to LRT platform, north side, within the Station Site area:**  
Seven bus bays “sawtooth” type with assigned layover, boarding, alighting and dedicated Metro Rapid bays for 40-foot standard size buses | Provide customer protection (canopy waiting areas)  
Provide service identity, service maps, timetables, Share Neighborhood area maps/information in Station Site area, lighting, seating, phones and communication system (VMS or Next Bus or similar)  
Provide closed-circuit television cameras and Passenger Assistance Telephones  
Provide features from Landscape, Public Art, and Other Transit Parkway Improvements |
|                                                          |                 | On-street          | **Within the Station Vicinity area:**  
Venice Blvd.  
North side and south side, stops located either nearside or far side of Robertson Blvd., or include both  
Washington Blvd.  
North side and south side, stops located either nearside or far side LRT trackway or include both | Provide service identity, service maps, timetables, lighting, seating and phones  
Provide customer protection (canopy waiting areas)  
Provide recommended Pedestrian Safety Features at this Station  
Provide shade trees at bus stops |

**SOURCE:** Metro, 2004
Pedestrian Linkages

Pedestrian Linkages integrate the landscaping, public art and other transit parkway improvements together with station program guidelines to develop linkages from the station to the surrounding area within two station area zones: the station site area and station vicinity. Pedestrian linkages may include streetscape improvements such as trees, lighting, signage and benches in station site areas across from the station platforms. Pedestrian linkage designs would be developed prior to the construction phase of the Project. See Station Area Definitions and Station Program Guidelines for Gateway and Neighborhood stations below and in Appendix H for further description.

Station Area Definitions

These station area definitions are used to define pedestrian linkages, ROW landscaping near stations, public art and other transit parkway improvements, station entrance features and station program guidelines. The following zones are included:

- Station Site: zone extending approximately 200 to 300 feet from the center of the platform of the station.
- Station Vicinity: zone extending approximately 300 to 600 feet beyond the Station Site.
- Station Influence: zone extending approximately 1/4 mile from the center of the station site area.

See Appendix H for further description.

Station Program Guidelines

Two concepts are used to express station program guidelines for the proposed Project. These concepts are Gateway Stations and Neighborhood Stations.

Gateway Stations. Gateway Stations are stations located near major destinations along the alignment. These stations anticipate high boardings and may include extensive pedestrian linkages within the station vicinity to major destinations nearby. Gateway Stations would be visible to and from a major destination. These stations may present opportunities for air rights development over the station.

Neighborhood Stations. Neighborhood Stations are smaller scaled stations located in smaller neighborhoods along the alignment. Typically, air rights development over Neighborhood Stations and Guideway is generally not anticipated. This will preserve existing views and open space around the station. Pedestrian linkages would typically include enhancements to a station site area.

Existing Downtown Los Angeles Station. These existing LRT stations are located in Downtown Los Angeles. These stations may include improvements to the stations themselves and/or station site areas.

See Appendix H for further descriptions of Gateway and Neighborhood Stations. These station program guidelines will be further developed for each station before Final Design.

Station Location Description

Downtown Los Angeles Connection. Six stations are located in this segment of the Project; 7th Street/Metro Center, Pico, Grand, Hill Street/21st Street, USC/Exposition Park, and Vermont. 7th Street/Metro Center and Grand Stations are existing stations.

- The Hill/21st Street station would be a side/split platform Neighborhood Station as shown in Figure 2.4-23. This location provides access to the Los Angeles Trade Technical College new campus entrance two blocks west on Grand Avenue at 21st Street.
Note: Exact station platform locations to be determined in Final Design.
The USC/Exposition Park Station will be an optional Gateway Station with a side/opposing platform scheme. The station would serve the university, as well as the adjacent complex of museums in Exposition Park. The station design, in terms of platform length, pedestrian access and queuing areas, can accommodate events where pedestrian peaks can be anticipated. This station is located near Kinsey Drive and east of Trousdale Parkway (Figure 2.4-24).

The Vermont Station will be a Neighborhood Station with a side/split platform scheme. The eastbound direction of travel will be served by a platform located east of Vermont Avenue. The eastern entrance to this platform will have a visual connection to the new addition to the Natural History Museum of Exposition Park at Menlo Avenue. This station entrance will have a visual connection and direct access with the Hasjid Omar Ibn Al-Khatdab Mosque located north of the station platform (Figure 2.4-25). Metro Rapid, DASH and other local bus lines would serve this station from Vermont Avenue.

**Mid-Corridor.** Three stations are located within this segment. These include Western, Crenshaw, and La Brea.

- The Western Station will be similar to Vermont Station (Figure 2.4-26). As a Neighborhood Station, the Western Station is an at-grade, side/split-platform station in a residential setting. This station will serve the Los Angeles Unified School District Foshay Learning Center (a middle school), 38th and Normandie Park in addition to the surrounding Mid-City community.

- The Crenshaw Station will be a side/split platform Gateway Station. Approximately 868 parking spaces will be provided adjacent to the station. The Crenshaw Station will be designed to accommodate interface with Metro Rapid bus service. As a Gateway Station, the Crenshaw Station is sited in a manner that would permit the possible future connections to busway or light rail improvements north-south along Crenshaw Boulevard. The station will serve West Angeles Church and Cathedral, the Al-Madinah School, L.A. County Probation Office and surrounding Crenshaw, Baldwin Hills, and Jefferson Park communities (Figure 2.24-27). Metro Rapid, DASH and other local bus lines would serve this station.

- The La Brea Station will be a Neighborhood Aerial Station on a bridge. As a result of traffic impacts analyzed in accordance with the Metro Board adopted Grade Crossing Policy for LRT, the La Brea Station will be a grade-separated aerial station with a center platform, so that the station footprint integrates well within the existing neighborhood. Stairs and elevators and station entrance will be located east and west of La Brea Avenue. The station will serve Dorsey High School, Rancho La Cienega Park and Westside Park, in addition to the Village Green and Baldwin Hills communities. The bridge design and station design will reflect the concepts of the Exposition Transit Parkway. This aerial station would have views looking north or south from the station to Baldwin Hills or Hollywood Hills. The bridge and station design would be designed so that new landscaping are included on south side of the ROW. An opaque wall and sound barrier would be built behind the landscaping to provide additional screening to single-family residential areas south of the ROW (Figure 2.4-28). Low sound barriers would also be provided on the bridge at La Brea station as noise mitigation from train operations. Metro Rapid and other local bus lines would serve this station from La Brea Avenue.

**West End.** Two stations are located in the West End segment, La Cienega Station and the Venice/Robertson Station. Both stations will be center platform stations.
FIGURE 2.4-24
USC/EXPOSITION PARK STATION AREA

Note: Exact station platform locations to be determined in Final Design.
Note: Exact station platform locations to be determined in Final Design.
Note: Exact station platform locations to be determined in Final Design.
Note: Exact station platform locations to be determined in Final Design.
The La Cienega Station will be a Gateway Station located on a bridge structure that would bridge La Cienega Boulevard. Two station entrances with stairs and elevators will be located on both the east and west sides of the La Cienega Station. Approximately 530 parking spaces would be provided in a parking structure located in the southeast quadrant of La Cienega Boulevard and Jefferson Boulevard, along with a surface parking lot on the Metro ROW east of La Cienega Boulevard. This station will serve the Hayden Tract, Syd Kronenthal Park and Baldwin Hills community (Figure 2.4-29). Metro Rapid, express and local bus lines would serve this station from an On-street and Off-Street Transit Center located at or near the station's Parking Facility.

The Venice/Robertson Station will be the interim terminal station for the proposed Project. This Gateway Station will be located at ground level and will have a center platform located on the south side of Venice Boulevard. It will incorporate a Clean Mobility Center (CMC). Approximately 845 parking spaces will be provided at the station in three surface parking lots within the Exposition ROW. The parking area in the ROW north of Venice Boulevard will be designed to accommodate a parking structure should it be warranted in the future, and it will also accommodate the West Los Angeles Bike Path within the Metro-owned ROW (Figure 2.4-30). Metro Rapid and local buses would serve this station in an On-Street and Off-Street Transit Center.

Downtown Los Angeles Connection Station Options

The LPA and Design Options within the Downtown Los Angeles Connection will have the following stations:

<table>
<thead>
<tr>
<th>TABLE 2.4-4: DOWNTOWN LOS ANGELES CONNECTION DESIGN OPTIONS – STATION LOCATIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locally Preferred Alternative</td>
</tr>
<tr>
<td>Uses existing Pico Station</td>
</tr>
<tr>
<td>Uses existing Grand Station</td>
</tr>
<tr>
<td>New Hill Street and 21st Street Station center platform</td>
</tr>
<tr>
<td>Designed not to preclude a future station at Hill Street and Jefferson Boulevard</td>
</tr>
<tr>
<td>USC/Exposition Park Station at Kinsey Drive</td>
</tr>
</tbody>
</table>

Note: For station plans see Appendix H, bound separately.

SOURCE: Los Angeles Metropolitan Transit Authority, 2004
FIGURE 2.4-29
LA CIENEGA STATION AREA

STATION AREA PLAN
LA CIENEGA station

SOURCE: Zimmer Gunsul Frasca Partnership

Station Vicinity
Surrounding Context
Station Location

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
VENICE/ROBERTSON STATION AREA

Station Vicinity
Surrounding Context

M Metro

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

VENICE/ROBERTSON STATION AREA

FIGURE 2.4-30
Parking facilities is defined as car parking facilities assigned to the Project. These facilities are provided and assigned to Mid-City/Exposition LRT stations based on ridership forecast and demand. The role and purpose of this element is to provide park and ride facilities and other types of car parking and car transfer facilities to allow for transfer of passengers from an automobile mode to transit or non-motorized mode provided by the Project. Parking numbers described below are for the year 2020 demand. Fewer parking spaces may be provided on opening day. Replacement parking for the Project is not part of this element of the Exposition Transit Parkway, and is discussed separately in Section 3.2 Parking. Parking facilities for the Project will be assigned to the following segments of the Route Alignment:

**Downtown Los Angeles Connection.** No parking facilities will be provided within this segment of the Project.

**Mid-Corridor.** Parking for 868 vehicles will be provided at Crenshaw Station in existing lots northeast of Crenshaw and Exposition Boulevards, north of Crenshaw Station and within the Station Vicinity area, adjacent to commercial uses. This could occur, for example, by sharing existing parking spaces with the West Los Angeles Cathedral or others. A “Kiss-and-Ride” drop off and waiting area will be located south of the station on Exposition Place, east of Crenshaw Boulevard. A "Kiss-and-Ride" drop off and waiting area will be provided immediately south of the La Brea station platform on Exposition Boulevard south. Access to the drop off area will be off of La Brea Avenue and a reconfigured access road across the ROW from Exposition Boulevard north.

**West End.** Both stations in the West End would have Parking Facilities.

- **La Cienega Station** - Approximately 530 parking spaces will be provided in a multi-level parking structure and a surface lot in the ROW. The multi-level parking structure will be located on the southeast corner of La Cienega and Jefferson Boulevards within the Station Site of La Cienega Station. Street level retail amenities will be part of the parking structure. An On-Street Transit Center will be provided in front of the parking structure on La Cienega Boulevard, facing the street level retail amenities. An On-Street Transit Center will also be provided on the ground level of the parking structure. The parking structure will provide driveway access from La Cienega and Jefferson Boulevards. Driveway access and circulation of transit buses will be provided as part of the ground floor level of the parking structure. A drop-off and waiting area will be provided on the north side of the parking structure on the ROW, south of Jefferson Boulevard.

The proposed La Cienega station would be situated on a major, regional north-south corridor serving transit users from both the South Bay and Hollywood. A large parking facility is proposed to serve the needs of park-and-ride transit users coming from these surrounding areas. The City of Los Angeles currently owns the site for the proposed La Cienega parking facility. The City has used this site as part of the East Central Interceptor Sewer (ECIS) improvement project. The City has a continuing need for a portion of the site as an air treatment facility for sewer odors. Through the City’s real property disposition process, Metro is seeking to acquire the other portion of the site not needed for air treatment equipment. In response, the City of Los Angeles City Council adopted a resolution in November 2004 requiring Council review before disposition of the property. The City has taken this action to ensure that alternate uses for the site other than transit and parking are considered. Due to the potential for the City to reserve this site for other uses, options to the La Cienega parking facility were generated. One option would relocate the parking facility to the opposite side of La Cienega Boulevard, on the southwest corner of La Cienega and Jefferson Boulevards. This option would require the acquisition of private property. The second option would redirect parking demand to other parking facilities along the alignment.
2.4 Description of LRT Build Alternative Considered

• **Venice/Robertson Station** - Approximately 845 parking spaces will be provided in surface lots within the Metro ROW, within the Station Area, within the Station Vicinity, within and outside the Station Influence Area. Three categories of parking facilities will be provided in three zones of the station:
  
  • **Drop Off/Waiting** - Also known as “Kiss-and-Ride” facility located north of the LRT platform on Exposition Boulevard, within the Station Site area.
  
  • **Midday Parking** - Provided in surface parking lots with 68 spaces provided south of the station platform within the Station Site and partially in the Station Vicinity area. Forty-two (42) spaces are provided southeast of the station platform in the ROW within the Station Vicinity and partially in the Station Influence area.
  
  • **Commuter Parking** - 735 spaces in a surface parking lot west of Venice Boulevard in the Exposition ROW.

2.4.2.1.1.d Bikeway and Bikeway Facilities

Bikeway Description

The Project includes a proposed bikeway facility, running parallel to the route alignment of the LRT, from Vermont Station to Venice/Robertson station. The proposed bikeway would have direct connections to the Ballona Creek Bikeway west of La Cienega Boulevard, the Venice Boulevard bike lanes at Venice/Robertson Station and would provide a connection to the western extension of the Exposition West Bike Path located on the Exposition ROW, west of Venice Boulevard. On the eastern end of the bikeway, direct connections can be made from the bikeway at Vermont Station to Exposition Park.

The following describes bikeway definitions to be used throughout the discussion of this element of the Project and throughout the document:

• **Bike Route** - Class III bikeways (bike routes) are established by placing Bike Route signs along roadways and used to connect discontinuous segments of bikeways for continuity to the bikeway system.

• **Bike Lanes** - Class II bikeways (bikes lanes) are striped lanes reserved for bicycles within the paved areas of roadways.

• **Bike Path** - Class I bikeways (bike paths) are facilities with exclusive Right of Way, with cross flows by motorists minimized.

• **On-street bikeway** - An on-street bikeway is comparable to a Class II bike lane. Signage adjacent to the street indicates where the bikeway is located, and the on-street bikeways are separated from the flow of traffic by striping.

• **Off-street bikeway** - An off-street bikeway is comparable to a Class I bikeway or bike path.

The discussion that follows details the characteristics of the bikeway’s route alignment (Figure 2.4-31):

• **Mid-Corridor**. The Project’s bikeway alignment begins west of Vermont Avenue across the LRT platform of the Vermont Station. Eastbound and westbound Class II bike lanes on-street (five feet in width) would be located on north and south sides of Exposition Boulevard between Vermont and La Brea Avenues.
Source: Terry A. Hayes Associates LLC, 2004
a transition so that cyclists will stop at Gramercy Place and walk their bikes over to the eastbound bike lane where Rodeo Road transitions to Exposition Boulevard south (Figure 2.4-32).

At Harcourt Avenue, cyclists would have a choice of transitioning to Jefferson Boulevard and riding on the street or use crosswalks along with pedestrians (Figure 2.4-33). At Jefferson Boulevard, bike lanes would be constructed on the north and south sides of Jefferson Boulevard to La Cienega Boulevard. Bike lanes would also continue on Exposition Boulevard beyond Harcourt Avenue to connect with the entry plaza at La Brea Station.

- **West End.** On-street bike lanes would be provided on the north and south sides of Jefferson Boulevard and west of La Cienega Boulevard. At a point just west of La Cienega Boulevard, an entrance to an off-street bikeway would be created. The westbound bike lane would transition into this entrance. Eastbound bicyclists – using the off street bikeway– would be required to dismount and cross Jefferson Boulevard at the Jefferson/National traffic signal. The off-street bikeway would use the existing National Boulevard bridge over Ballona Creek (the bridge would be vacated for automobile use by the Project) (Figure 2.4-34). The bikeway would provide a future connection to the ramp to the existing Ballona Creek Bike Path near this location.

The off-street bikeway would continue to Wesley Street where bicyclists would be directed through signage and pavement markings to either use crosswalks to enter the Venice/Robertson Station area or to proceed along National Boulevard to either intersect the bike lanes on Venice Boulevard or to connect to the future Exposition West Bike Path which would use the Metro-owned ROW west of Venice Boulevard (Figure 2.4-35). A dedicated and separate bike path (12 feet wide) would be created along the south edge of the proposed Venice/Robertson Station parking facility which would also be located in the ROW.

Outside of the proposed bikeway alignment, connections can be made to other bikeways at the following segments:

- **Downtown Los Angeles Connection.** The Project’s bikeway would connect to a Class 3 Bike Route extends past USC and Exposition Park along Exposition Boulevard from Vermont Avenue to Figueroa Street. A Class 3 Bike Route extends from Exposition Boulevard at Figueroa Street to Olympic Boulevard towards Downtown Los Angeles.

- **West End.** The proposed bikeway would have direct connections to the Class 1 Ballona Creek Bikeway meeting the Class 1 bike path of the Project’s bikeway at Ballona Creek, near Syd Kronenthal Park. The Project’s bikeway would also connect to the Venice Boulevard Bike Lanes north of the Project’s western terminus and would provide a connection to the future Exposition West Bike Path located on the Exposition ROW west of Venice Boulevard.
EB or WB Cyclists have a choice to cross or turn at the signalized intersections at the pedestrian cross walks, or ride on the street as a vehicle.
EB or WB Cyclists have a choice to cross or turn at the signalized intersections at the pedestrian cross walks, or ride on the street as a vehicle.
Access Point to Ballona Creek Bikeway

Existing National Blvd Bridge Converted to “Bikes Only”

Off-Street 12’ Bikeway

LRT guideway

Widened & Realigned National Blvd

EB or WB Cyclists have a choice to cross or turn at the signalized intersections at the pedestrian cross walks, or ride on the street as a vehicle.

Source: DMJM Harris

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

FIGURE 2.4-34
JEFFERSON BOULEVARD AT NATIONAL BOULEVARD
BIKE LANE/BIKE PATH TRANSITION
FIGURE 2.4-35
WASHINGTON BOULEVARD AT NATIONAL BOULEVARD BIKE PATH TRANSITION

From Venice Boulevard Bike Lanes or Exposition West Bike Path

To Venice Boulevard Bike Lanes or Exposition West Bike Path

End of Class I 12' wide Bike Path

Venice/Robertson Station

Crossing Gates

Crossing Gates

SOURCE: DMJM Harris
Bicycle Facilities at Stations

Bicycle parking will be provided at every station along the alignment with the exception of stations lacking adequate space, such as, at 7th Street/Metro Station. Racks and lockers will meet Metro bikeway planning group specifications. A minimum of ten inverted U racks (five in close proximity to each platform) will be provided within access to each station entrance, where space allows. Four secure bike lockers will be provided at each station without a parking facility except for stations without adequate space. Eight secure bicycle parking spaces (lockers or a locked enclosure) will be provided with room for expansion as demand increases, at each station with a parking facility. The bicycle parking will be located within close proximity to handicapped car parking. Bicycle parking should be no further from the station entrance than the closest car parking. If shared parking lots are utilized, bicycle parking agreements need to be made between Metro and the property owner to provide space for secure bicycle parking to be managed by Metro.

Table 2.4-5 provides a summary of the Mid-City/Exposition LRT Project bicycle facilities.

<table>
<thead>
<tr>
<th>TABLE 2.4-5: BICYCLE FACILITIES SUMMARY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Name</td>
</tr>
<tr>
<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>DOWNTOWN LOS ANGELES CONNECTION</strong></td>
</tr>
<tr>
<td>7th St./Metro Center</td>
</tr>
<tr>
<td>Pico Station</td>
</tr>
<tr>
<td>Washington Blvd/Grand Ave Station</td>
</tr>
<tr>
<td>21st St./Hill St.</td>
</tr>
<tr>
<td>USC/Exposition Park</td>
</tr>
<tr>
<td>Vermont Station</td>
</tr>
<tr>
<td><strong>MID-CORRIDOR</strong></td>
</tr>
<tr>
<td>Western Station</td>
</tr>
<tr>
<td>Crenshaw Station</td>
</tr>
<tr>
<td>La Brea Station</td>
</tr>
<tr>
<td><strong>WEST END</strong></td>
</tr>
<tr>
<td>La Cienega Station</td>
</tr>
<tr>
<td>Venice/Robertson Station</td>
</tr>
<tr>
<td><strong>STATION OPTIONS</strong></td>
</tr>
<tr>
<td>23rd St./Flower St.</td>
</tr>
<tr>
<td>Jefferson/Flower St.</td>
</tr>
<tr>
<td>17th St. and 18th St.</td>
</tr>
<tr>
<td>Jefferson/Hill St.</td>
</tr>
</tbody>
</table>

/a/ Exact rack and locker quantities to be determined in Final Design.

Bikeway Features

Bike lanes are designed for bicyclists to share the roadway with, and use the same intersections signalization and cross walks as motorists and pedestrians. At certain intersections, bicycle specific signal phasing may be introduced where conditions warrant. Additional design features include roadway surface improvements and wayfinding signage and graphics. In addition to the striped bike lanes, design, and signage, striping standard will follow the Caltrans Highway Design Manual Chapter 1000 or the State-adopted MUTCD.

In Culver City, directional patterns designed by the Project’s lead artist will be applied to the surface of the Class 1 (off-street dedicated ROW) bike path. The patterns will be configured to create a ‘warning code’ that instruct bike riders to slow down for street crossing intersections and transitions onto the Class 2 (on-street) bike-lanes at Jefferson and National Boulevards. The patterns are envisioned as a woven motif that would be applied using traffic paint or thermal plastic film which are inexpensive, easy to maintain, have a reflective quality for night riding, and do not create trip hazards. Use of earthen berms and landscape planting may also be used to enhance delineation of the Class 1 bike path and designate it as a strand of the Exposition Transit Parkway. The bikeway would also include consistent uniform way-finding signage, graphics and bikeway maps.

2.4.1.1e Landscaping, Public Art and Other Transit Parkway Improvements

Landscaping Plan

The Exposition Transit Parkway focuses on improved landscape design throughout the corridor. The goal of this landscaping plan is to implement the Exposition Transit Parkway using landscape concepts, which would:

- Create a distinct and positive image to the neighborhoods along the alignment.
- Provide a sustainable alignment;
- Be reasonable to maintain; and
- Be economical to build;

The landscape installations for the Exposition Transit Parkway are designed to enhance and invite customers onto the system. Improvements may include extensive plantings, earthen berms, enhanced fencing, landscape-veiled structural walls, sound walls and fencing, and other features. These installations will mitigate the visual impacts of the alignment. Wherever possible, all of the landscape elements will be designed with input from the Lead Artist so that landscape and structure appear thematically woven together. Woven decorative patterns conceptualized by the Lead Artist may also be incorporated into the design of structural walls, sound walls and fencing. While also creating a sculptural interest, the elements may also help deter graffiti.

Stations and bridges will be landscaped efficiently wherever possible, including in restricted, elevated spaces such as hills and walls. This will further reduce visual impact and will reinforce the image of a cohesive green corridor. The color, texture and massing of trees and plantings will create visual interest to passengers and will screen undesirable views from residential areas. The trees, shrubs and ground covers suggested in the landscaping plan have been recommended for their longevity, low maintenance requirements and drought tolerance.

Local needs of residential and other property owners will be taken into consideration in providing adequate screening and buffering adjacent to the Project. Where feasible, planting and woven patterns conceptualized by the Lead Artist may cover large unadorned walls, and would be used to screen light rail equipment such as valves, transformers, electrical substations and other mechanical devices that may visually impact residents. These measures will further help deter graffiti, especially in difficult to supervise areas. Walkways and linkages from adjacent neighborhoods will be enhanced to reinforce
neighborhood places and signal the act of arrival at stations. Levels of landscaping provided by the Project would be consistent with the landscape levels provided for Metro Orange Line and Metro Gold line (Pasadena).

Landscaping improvements include:

- Removal of existing soils, rough and fine grading;
- Soil amendments;
- Soil top dressing and mulching;
- Automatic irrigation system;
- Surveying, evaluation, removal or relocation of existing trees;
- Planting of new trees, shrubs, espaliers, vines and vines; and
- Coordination and planting on walls, fencing, arbors and other landscape structural features.

**Planting Guidelines.** The planting areas within the transit parkway are located outside of the train dynamic envelope on the north and south sides and within the Metro ROW. Available planting areas vary due to the track alignment within the Metro ROW, and varying width of the ROW.

The following principles are used as a general guideline to the planting palette/design:

- Use water conserving plant materials, employ water conserving irrigation techniques, screen undesirable views, frame desirable views, assist in buffering noise at appropriate locations, provide longevity, use hardy materials.

- A single tree species and a single shrub species is recommended to continue the entire length of the alignment, with the exception of those areas where space is otherwise restricted.

The landscape concept developed as part of the environmental process suggests that the remaining plant materials consists of palette groupings, having an individual color assigned to them, which the plant characteristics have (i.e., flower color, leaf color, etc.) These individual pallettes are designated to mini-segments, within the Mid-Corridor segment, that are massed by color theme and transition from one color theme to another along the route, the landscape theme recommends.

- Serpentine (weaving) masses of shrubs and ground cover with layers of texture and height provided between stations in direct contrast to the lines created by single tree and hedge species described above;
- Accent trees at street intersections, in variation of appropriate colors;
- Vines/Espaliers on the fences and walls along the route at strategic locations;
- The landscape transitions from the above design concept to the station areas by introducing another layer;
- Columnar trees placed in a rhythmic pattern;
- Blocks of colored ground plane plant materials used in the same rhythm as the columnar trees mentioned above; and
- Each station provided with its own identity by following the prescribed color theme, and at the same time, maintain a definite cohesion throughout the alignment.

**Landscape Planting at Corridors.** Space for planting along the linear corridors of the Exposition Transit Parkway is variable and frequently narrow as it traverses the more urbanized and traveled neighborhoods. In these narrow areas, four- to five-foot wide planters along fences lines and adjacent to the roadways will be planted with low masses of hedge and accent plantings. Trees other than palms will need periodic pruning so that there is no growth into the train dynamic envelope. Rather than individual branch shaping and thinning, trees adjacent to the tracks may be massed sheared periodically to create a “green wall” outside the adjacent fence line.
Vines shall be planted no more than 12 feet on center on walls and fences. Vines on fences should be trimmed and maintained to encourage dense growth while not allowing undesired growth into the rail Right of Way.

A tree spacing of 35 feet on center is suggested within the Right of Way. Tree and tree wells shall conform to local jurisdictional standards. All permits and approvals shall be obtained for tree planting outside of Metro Right of Way.

Trees shall be kept at least five feet from roadway pavement, where feasible. Trees within five feet of pavement shall have root barriers.

The width between the roadway and the clear rail envelope varies. Tree selection and placement should take into consideration overhanging branches into private property or into the public roadway. The Exposition Transit Parkway design concept is to create a park like edge along the rail line and to buffer the view, noise and motion of the trains as much as possible from adjacent properties.

Effort should be made to place plantings in strategic places that screen negative views, reduce glare, impede graffiti on walls and deter foot traffic into or near dangerous rail and utility services.

The landscape should allow for a path for Metro security and maintenance personnel. Openings in the fences or walls should not be blocked by landscape plantings.

In many places where space or maintenance is limited, it is encouraged that ground areas be covered with natural coarse shredded bark mulch or ornamental river cobblestone. Mulch should be resistant to wind and fire hazards while river cobble should be anchored to a concrete grout bed (without joints) so as to discourage removal.

**Landscape Planting at Stations.** At stations and at major intersections, there is a desire to create visual impact and diversity by specifying particular flowering tree specimens of unusual or dramatic form and texture. For more interest and diversity in midst of the structured unity of fences, walls and station structures, it is recommended that specific stations be assigned color themes for the flowering plant materials. The following guidelines should also be considered:

- Yellows, oranges, violet, reds and other colors should be used in monochromatic masses at specific stations.
- Consider columnar trees planted in linear rows, where feasible, along the station platform to identify the station and the route of the Project.
- Where feasible, isolated or strategic planters near major entrance to stations should contain unusual and striking specimen trees or plantings that give unique character to the particular stations. Planters should be low maintenance and drought tolerant.

**Parking Facilities.** In provided parking facilities adjacent to the stations, streets and the ROW, trees are to be planted within surface parking lots following local ordinances. If feasible, a 24-inch box tree should be provided as a standard tree type to be planted in surface parking lots. Views of parked vehicles adjacent to roadways and driveways shall be screened by no taller than 36-inch planting screens or hedges. Where possible, all surface parking lots included within the Metro ROW would have permeable surfaces.

**Integrated Corridor Features**
Public art, safety devices and Metro signage are visual elements that would be associated with the Exposition Transit Parkway. Public Art conceptualized by the Lead Artist will further the visual motif of weaving and will be carried through all new stations. Safety devices seek to ensure the safety of pedestrians and motorists while public signage and graphics would keep transit users as informed as possible of transit options and pertinent schedules.

Public Art and System Elements.

Due to the unique nature of art and the significance of operational impacts, and in order to ensure curatorial appropriateness, the public art program must be implemented and managed by an expert in both the public art field and public transportation (see Section 4.4 Visual Quality of this document).

In support of the EIR effort, Metro has commissioned a Lead Artist to work with the Project’s Design Team to develop relevant, integrated public art opportunities with a cohesive aesthetic. With the Lead Artist’s input, the concept of weaving the structural and landscaped elements of the Parkway has been developed during PE and will require further refinement during Design/Build.

System Wide Elements to be designed with Lead Artist input include:

- **Canopies:** The concept of weaving has a strong sculptural presence in all aspects of the canopy structure and will create interesting shadow patterns on bare concrete expanses.
- **Entry installations:** Vertical woven forms strategically positioned at station entrances will serve as landmarks for commuters and will help define gateway and neighborhood stations.
- **Bridges, Sound Walls, Structural Walls and Fences:** Will be some of the most imposing aspects of the parkway and their impact may be softened and made more appealing with input from the Lead Artist. The integration of woven forms in these surfaces will also serve as graffiti deterrent as highly textured and patterned surfaces are difficult to tag. The inclusion of art also helps to deter vandalism as it provides the impression of a more controlled and meaningful environment. Construction methods available to integrate woven patterns include sandblasting, form work and patterned brick or block.
- **Bollets:** Small sculptural forms that help define the alignment in dense urban areas where there is little room for tree planting. These may help serve as a warning code in pedestrian areas.
- **Bikeway:** Note that all bikeway embellishment will need to undergo appropriate safety review (see Bikeway Features).

In addition to the Lead Artist who will work on the systemwide elements, individual Station Artists will be contracted at a later date to design, fabricate and install feature artworks for each individual station. Station Artist projects will address the environmental and cultural contexts of their appointed station.

Station Artist Opportunities will include:

- **Paving:** Platform areas dedicated to embellishment in prominent locations. Only materials with proven durability in highly trafficked public places will be considered, such as: colored, textured or stamped concrete. Lithocrete (glass, shell or ceramic embedded concrete), terrazzo and traffic paint and thermal film.
- **Seating:** Design or selection of a system-wide bench whose form or surface may be embellished or adapted by Station Artists (e.g. a concrete bench with decorative sandblasted surface motif).

Free standing sculpture: may help define the character of each individual station while serving as arrival markers for customers. Suitable materials include concrete, GFRC, granite, stainless steel and ceramic tile.

A budget will be established for the Project’s public art program, and shall be appropriate to the overall costs of the Project and adequate to have an impact.
The art budget shall cover the following:

- Lead Artist’s design and construction oversight fees
- Station Artists’ design and construction oversight fees
- Station Artists’ fabrication and installation of artworks

The art budget shall not include:

- Design, fabrication and installation of functional artworks (e.g. benches, paving, etc.) that may be embellished by Station Artists
- Implementation of the Lead Artist’s integrated design concepts

These costs are part of the baseline budget and should not come out of the art budget.

**Pedestrian and Motorist Safety Features.** A variety of techniques are available for enhancing pedestrian safety at light rail grade crossings. Warning signals range in height, placement, style to best capture the pedestrian’s attention. The Mid-City/Exposition LRT Project incorporates, where appropriate, passive signing, pavement marking, and barrier channelization which includes active warning devices, swing gates, and pedestrian gates into its pedestrian safety approach. Each technique is further described below.

- **Passive Signing and Pavement Marking**

  This type of pedestrian treatment includes signs, stop bars, tactile warning strips and striped channelization. As described in TCRP Report 69, pedestrian-only signs (signs intended for viewing only by pedestrians traveling along the desired path) should be installed below about 6.5 feet. These signs should also be installed so that pedestrians walking on the intended path will not strike them. Often, pedestrian signs are mounted overhead. Although these signs are visible while pedestrians approach from a distance, they cannot see it when they need it most, right as they are about to cross the tracks.

  The Mid-City/Exposition LRT Project will include passive signing located where it is most effective for pedestrian warning (see examples in Figure 2.4-36). Tactile warning strips, such as truncated domes, are applied to the sidewalk and are beneficial to warn visually impaired pedestrians of an upcoming hazard. The tactile treatment will also provide a warning to all pedestrians of the safe area to stand when a train is approaching. The use of tactile warning strips will not be limited to station platforms, but will be used at all pedestrian at-grade crossings of the tracks where sidewalks exist and pedestrian activity is present or anticipated. A change in texture or color of the trackway can also be incorporated to delineate the safe zone for the pedestrian. In either case, the tactile warning strip or striping will be located completely outside of the dynamic envelope of the light rail vehicle. Signage and striping will be compatible with the Americans with Disabilities Act.
Active warning devices will be provided for pedestrians along the Project. Active warning devices are devices that are activated by an approaching train and warn pedestrians of the approaching train. They include such devices as railroad flashing lights, “light rail vehicle icon” warning signs, pedestrian signals and audible warning devices. This figure provides examples of various passive and active warning devices used on LRT systems already in use on the MTA Pasadena Gold Line.
As part of passive control treatments, a pedestrian refuge area is important at locations where pedestrians must cross multiple modes of traffic. For example along median running alignments and side running alignments, pedestrians are required to cross both motorist traffic and LRT tracks. At these locations, pedestrian refuge areas will be made available. As such, each crossing is separated into a distinct movement, and pedestrians are not left standing on the tracks, or in the roadway, when a train approaches. The pedestrian refuge area will be clearly defined with contrasting materials. Pedestrian signalization will also be provided.

**Barrier Channelization**

Barrier channelization may be provided at pedestrian crossings to direct pedestrians to the designated pedestrian crossing. Barrier channelization physically separates the pedestrian path from the LRT trackway, leading the pedestrian to a designated pedestrian crossing. One of the most common types of barrier channelization are pedestrian gates. Swing gates are commonly used pedestrian gates in many LRT systems.

Similar to the motorist gate, the pedestrian automatic gate lowers in front of the path of a pedestrian, physically blocking them from entering the crossing area. See typical pedestrian automatic gate examples in Figure 2.4-37.

- **Enhanced Crosswalks**

Enhanced pedestrian crosswalks should be used within station areas and selected parts of the alignment. Enhanced crosswalk locations are summarized in Table 2.4-6. The goals of the enhanced crosswalks are the following:

- To provide a visual means of direction and guidance for pedestrians walking from a destination to the station area and station entrance;
- To visually reduce the scale and distance a pedestrian encounters when crossing a large roadway such as a major arterial, thus humanizing the walk experience in a station area;
- To delineate crossing paths so that the pedestrian circulation around a station area within a given neighborhood is organized in a well understood hierarchy of pedestrian features;
- Gives emphasis to where a station is located across from adjacent streets;
- To assist pedestrians to cross at-grade LRT crossings safely;
- To assist in directing pedestrians to cross safely across streets; and
- To assist pedestrian crossings where there is a transportation mode change on street.
Swing gates require pedestrians to pull a gate to enter the crossing and to push a gate to exit the protected track area; therefore, a pedestrian cannot physically cross the tracks without pulling open the gate. The gates are designed to return to the closed position after the pedestrian has passed.

Source: Korve Engineering

FIGURE 2.4-37
<table>
<thead>
<tr>
<th>Station or Crossing Location</th>
<th>Station Area Definition or LRT Crossing Location</th>
<th>Enhanced Crosswalk Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>21st St./Hill St. Station</td>
<td>Station Site</td>
<td>Intersection at 21st St. and Hill St. connecting station entrances</td>
</tr>
<tr>
<td>USC/Exposition Park Station</td>
<td>Station Site</td>
<td>Crossing near Pardee Way connecting east station entrance; Crossing at Kinsey Drive, near west station entrance</td>
</tr>
<tr>
<td>Trousdale Way</td>
<td>Crossing at street running LRT alignment</td>
<td>Crossing connecting Trousdale Parkway to Exposition Blvd. north, median, Exposition Blvd. south and Rose Garden of Exposition Park</td>
</tr>
<tr>
<td>Vermont Station</td>
<td>Station Site</td>
<td>Intersection at Vermont Ave. and Exposition Blvd. connecting station entrances facing Vermont Ave.; Crossing at Menlo Ave., connecting to east platform and station entrance from Menlo Ave.</td>
</tr>
<tr>
<td>Western Station</td>
<td>Station Site</td>
<td>Intersection at Western Ave. and Exposition Blvd. Connecting station entrances</td>
</tr>
<tr>
<td>Normandie Avenue</td>
<td>Crossing at street running LRT alignment</td>
<td>Intersection at Normandie Ave. and Exposition Blvd., including median</td>
</tr>
<tr>
<td>Gramercy Place</td>
<td>Crossing at gated LRT and bikeway alignment</td>
<td>Crossing from Exposition Blvd. north to Exposition Blvd. south, east of LRT crossing and transition including median and bikeway; crossing from Exposition Blvd. To Rodeo Rd. west of LRT crossing and transition including median and bikeway</td>
</tr>
<tr>
<td>Arlington Avenue</td>
<td>Crossing at gated LRT and bikeway alignment</td>
<td>Intersection at Arlington Ave. and Exposition Blvd.</td>
</tr>
<tr>
<td>Crenshaw Station</td>
<td>Station Site</td>
<td>Intersection at Crenshaw Blvd. and Exposition Blvd. connecting station entrances facing Crenshaw Blvd.; block crossing to east platform station entrance</td>
</tr>
<tr>
<td>Denker Avenue</td>
<td>Crossing at street running alignment</td>
<td></td>
</tr>
<tr>
<td>Raymond Avenue</td>
<td>Crossing at street running alignment</td>
<td></td>
</tr>
<tr>
<td>Buckingham Road</td>
<td>Crossing at gated LRT and bikeway alignment</td>
<td></td>
</tr>
<tr>
<td>Farmdale Avenue</td>
<td>Crossing at gated LRT and bikeway alignment</td>
<td></td>
</tr>
<tr>
<td>La Brea Station</td>
<td>Station Site, Station Vicinity near bus transfer zones close to Jefferson Blvd. and La Brea Avenue</td>
<td>Crossing at Exposition Blvd. and La Brea Ave. for north-south access of station area under bridge structure; intersection of Jefferson Blvd. And La Brea Avenue</td>
</tr>
<tr>
<td>La Cienega Station</td>
<td>Station Site</td>
<td>Intersection at Jefferson Blvd. and La Cienega Blvd. Connecting station entrances, including access from on-street transit center to LRT station entrance across La Cienega Blvd. or Jefferson Blvd.</td>
</tr>
<tr>
<td>Venice/Robertson Station</td>
<td>Station Site and Station Vicinity</td>
<td>Intersection at Venice Blvd. and Robertson Blvd. connecting station area to Exposition ROW and Exposition West Bike Path northwest of Venice Blvd.; intersection of Washington Blvd., National Blvd., and ROW. to connect to station area</td>
</tr>
</tbody>
</table>

**SOURCE:** Metro, 2004
Enhanced crosswalks can be designed with pavers, paint striping (e.g. zebra stripe) or other slip resistant surfaces to highlight a pedestrian crossing at selected intersections close to a station entrance or across a LRT crossing where concrete crossing panels occur. These crosswalks are highlighted or delineated differently from other conventional crosswalks such as ladder type or two paint stripes bordering a crosswalk zone.

The following are guidelines for enhanced crosswalks:

- Necessary within a station site area, at arterial intersections close to a station entrance where LRT operations are street running;
- Necessary within a station site area or station vicinity area, where high levels of pedestrians from bus, auto or bicycle transfers to LRT station entrances occur;
- Enhanced crosswalks should be used on all four sides of an intersection close to a station entrance where LRT are street running;
- Enhanced crosswalks should be used at pedestrian crossings where LRT gated crossings occur;
- Encourage enhanced crosswalks with direct access to a mid-block station entrance. Note that for mid-block crossings in certain jurisdictions, a traffic signal may be required;
- Encourage enhanced crosswalks in selected segments of an LRT alignment where high pedestrian volumes occur during special events or time of day in conjunction with LRT running operations;
- Enhanced crosswalk designs around a station site area should be consistently designed;
- A lower level crosswalk design (e.g. ladder type or two stripe bordering a crosswalk zone) maybe provided within a station vicinity area but not at an LRT crossing, so that a higher emphasis is given to crosswalks closest to the station entrance within the station site area;
- A lower level crosswalk design is never used for at-grade LRT crossings, regardless of the station area location;
- Local jurisdiction standards for enhanced crosswalks apply to all crosswalk designs in city streets and rights of way;
- Enhanced crosswalks meet PUC permitting requirements for hearing and sight impaired transit users.

A menu of enhanced crosswalk designs will be developed as part of the Integrated Corridor Features of the Exposition Transit Parkway.

- **Curb Extensions**

Curb extensions are corner extensions of a sidewalk on a street right of way. Curb extensions assist a pedestrian crossing a street by reducing the width of the roadway a pedestrian has to cross. Curb extensions are also seen as a means of calming down traffic by slowing motorists close to an intersection where the curb extension necks down or pinches the roadway at the intersection. Motorists will also have a tendency to slow down when a pedestrian waiting on a curb extension is in full view of the on-coming motorist.

Curb extensions used for this Project are planned to facilitate walk access to a Station Site area and station entrance from a Station Vicinity area. This is seen diagrammatically as pedestrians converging or distributing out from the target station platform to the neighborhood or final destinations.
For this Project, curb extensions are used under the following guidelines:

- Extensions are located on side streets and not on major arterial streets;
- Extensions are designed so that the extension side is facing an opposing extension across the street and do not extend into bike lanes and fire hydrant access; and
- Extensions are planned to facilitate direct pedestrian path of travel to and from the station entrance, station site area and surrounding neighborhood or destination.

Subject to local jurisdictional approval, curb extensions are located at the following side streets in this Project and at the following Station locations:

Mid-Corridor

- **Western Station.** North-south side streets located north and south of Exposition Boulevard both east and west of Western Avenue. These streets would be within the 600-foot radius Station Vicinity zone.
- **Crenshaw Station.** North-south side streets located north and south of Exposition Boulevard, west of Crenshaw Boulevard. These streets would be within the 600-foot Station Vicinity zone.

**Countdown Pedestrian Crossing Traffic Signals.** Countdown pedestrian crossing traffic signals are signal devices that display an allowed time for a pedestrian signal phase for pedestrian crossings. The signal operates by displaying a walk signal and icon with a digital display of pedestrian crossing time counting down to zero at the end of the walk cycle.

The implementation of these signals is subject to local jurisdictional approval. The following guidelines maybe used if countdown pedestrian crossing traffic signals are used in this Project:

- Install signals at pedestrian crossings with direct access to a Clean Mobility Center
- Install signals only where a high volume of pedestrian crossings occur, either to or from a station site area or across an at-grade LRT alignment

Installation of countdown pedestrian signals is encouraged for crosswalks having direct access to the Clean Mobility Center at Venice/Robertson Station. These signals could be installed at Venice and Robertson Boulevards to allow organized pedestrian movements from the Exposition ROW Parking Facility and Exposition West Bike Path to the Venice/Robertson Station Clean Mobility Center.

- **Motorist Safety Features.** The following safety features will be incorporated into the Mid-City/Exposition LRT Project to provide an increased level of motorist safety. One of the leading causes of train versus motor vehicle collisions at grade crossings controlled by gate arms is the motor vehicle driving around lowered gate arms. The classic, “drive-around” gate violation is an “S” turn maneuver made along the cross street, as can be seen in Figure 2.4-38. In addition, inattentive drivers may make left turns from unsignalized frontage roads, or driveways, around the tips of lowered gate arms. Various measures can be taken to deter or prevent motorists from intentionally driving around the lowered automatic gates arms. Those treatments include installing a raised median, installing large pavement buttons or flexible bollards, and installing four-quadrant gates. The following treatments are available for LRT grade crossings and will utilized along the Mid-City/Exposition LRT corridor:
  
  - **Install Raised Median.** Where the roadway geometry permits, a raised median may be installed with non-mountable (barrier) curbs to deter motor vehicles from driving around the lowered gate arms as seen in Figure 3-39. When installing medians, the
Double Yellow Striping - Vehicle Drives Around Gate

S-TURN VIOLATION

MOTORIST DRIVING AROUND GATE FROM FRONTAGE ROAD

SOURCE: Korve Engineering

FIGURE 2.4-38

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR
LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

MOTORIST VIOLATIONS AT LRT CROSSING
Raised median may physically prevent motorists from driving around the lowered crossing gates.

Intended motorist path blocked by raised median.

RAISED MEDIAN

FOUR QUADRANT GATE SYSTEM

SOURCE: Korve Engineering

FIGURE 2.4-39

MOTORIST VIOLATION DETERRENTS AT LRT CROSSING

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY
grade crossing geometry must be evaluated to provide adequate mobility to adjacent driveways and streets parallel to the trackway. The median should typically extend 100 feet from the grade crossing, but this may not be possible due to the grade crossing geometry.

- **Install Large Pavement Buttons or Flexible Bollards** - Where raised medians are difficult to install due to roadway geometry, large six inch diameter pavement buttons four inches high or flexible bollards or delineators should be installed in the median to deter motor vehicles driving around the lowered gate arms. These devices will discourage motorists from driving around lowered automatic gate arms. These devices are not a complete substitute for raised medians or four quadrant gates. The installation of these devices is subject to local jurisdiction approval.

- **Install Four Quadrant Gates** - Another possible solution to deterring motorists from driving around the tip of lowered gate arms is installing automatic gates in all four quadrants of the crossing, blocking both the entrance (near side) and exit (far side) to the crossing on each roadway approach, as illustrated in Figure 2.4-39 above. Because a gate also blocks the exit from the crossing, motor vehicles are essentially unable to drive around the tip of the standard automatic gate arm. Four quadrant automatic gates are most applicable at crossings where the approach roadway is not wide enough to accommodate raised medians or where there is an immediately adjacent, parallel roadway or driveway allowing motorists to circumvent the crossing warning devices. They may also be appropriate at problem locations with poor sight distance and where, despite median treatments, motorists continue to violate the automatic gates.

- **Install Pre-Signals** - Pre-signals will be installed at all crossings where the clear storage area for motor vehicles between the trackway and the downstream stop line is less than the length of the design vehicle for the roadway. In addition pre-signals will be installed at crossings where queuing from a downstream intersection extends beyond the trackway.

As defined by the *Implementation Report of the USDOT Grade Crossing Safety Task Force*, pre-signals are, “supplemental highway traffic signal faces operated as part of the highway intersection traffic signals, located in a position that controls traffic approaching the railroad crossing and intersection.” During the traffic signal preemption sequence, motorists may focus on the downstream traffic signal indications rather than the flashing light signals located at the highway rail grade crossing (immediately upstream from the intersection). This type of motorist behavior is especially undesirable during the beginning of the preemption sequence when the downstream traffic signals are typically green, clearing queued vehicles off the tracks, and the flashing light signals are activated (before the automatic gates start to descend or are fully lowered). Motorists are either confused by the conflicting message from the two traffic control devices – green traffic signal indications in conjunction with red flashing light signals – or simply ignore the flashing light signals altogether. In fact, some motorists are so intent on the green downstream traffic signals, that they will drive through a completely lowered automatic gate arm, breaking it off the mechanism.

- **Install Active “No Right Turn” (NRT) or “No Left Turn” (NLT) Signs** - Where motorists may inadvertently drive around or into a lowered gate arm from an adjacent parallel street or driveway, active “No Left Turn” signs or red arrows for protected left turn approaches should be installed. Where queuing from right turn vehicles may obstruct the intersection for both motorists and pedestrians, or where sight distance limitations obstruct the flashing light signals or automatic gates, active “No Right Turn” signs should be installed.
**Signage & Graphics.** Signage & Graphics are information and wayfinding indicators, which inform and direct customers onto the system. Signage & Graphics prepare a customer in advance for a travel experience on the Metro Rail system. At the same time, proper Signage & Graphics constantly informs customers where they are in the system, the line they are traveling in, the destinations they are traveling through, the possible transportation connections to be made and the convenience of destination amenities nearby the system. Signage & Graphics for this Project will be developed from the Metro Signage & Graphics Standards. Design elements and criteria from these Standards will be customized for this Project. Elements covering this item will include and not be limited to:

- Station Identification and Directional Signage
- Variable Message Signs (on board vehicle and at stations)
- Graphics for ticket vending machines and miscellaneous electronic passenger Information devices
- Off-site Directional Signage and Markers
- Road access and Parking Signage

**System Facilities**

**Traction Power Substations Facilities.** Traction Power Substations (TPSS) electrical substations are needed to redistribute the electrical current needed to run the LRT. Typical traction power substations are enclosed buildings located adjacent to the LRT ROW. Eight locations are proposed along the route. Figure 2.4-40 illustrates the general location of each TPSS station. Specific locations are shown in the Plan and Profile drawings in Appendix A.

**Communication and Signal Building (at Stations).** These buildings, known as 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, as well as maintaining sight lines for LRT operations.

**2.4.3 OPERATIONS AND MAINTENANCE FACILITY**

**2.4.3.1 The Existing Division 11 Operations and Maintenance Facility**

Currently, the Metro Blue Line’s maintenance and storage facility is located adjacent to the Blue Line main line in the City of Carson. This location is bounded by the Union Pacific Railroad Right of Way on the north, the SR-710 (Long Beach Freeway) on the west, and Southern California Edison’s Transmission Line Right of Way and the Los Angeles River on the east. There are no residential or commercial structures anywhere within sight of the yard. The only existing neighbors are some animal stables and a public storage facility to the south.

This site is to be expanded, as part of another project, to accommodate the additional rolling stock necessary for the growing Blue Line service. The proposed expansion is insufficient to meet the light maintenance and storage needs of the proposed Mid-City/Exposition LRT vehicles. The heavy maintenance needs associated with the Mid-City/Exposition LRT can be met with the Division 11 facility, provided that another facility exists for light maintenance and storage.
2.4.3.2 Selected Site for Mid-City/Exposition LRT Layover and Maintenance

The proposed Mid-City/Exposition LRT layover and maintenance facility is planned for a site just south of and adjacent to the Division 11 facility (Figure 2.4-41). This site is located between the Los Angeles River and the SR-710 (Long Beach Freeway) on land currently owned by Southern California Edison (SCE) for their power transmission lines. These lines run along the eastern and western edge of the property. Metro plans to lease a portion of this property for the Mid-City/Exposition LRT Layover and Maintenance Facilities. SCE has indicated a willingness to lease this property to the Metro pending completion of environmental clearance.

The proposed Mid-City/Exposition LRT Layover and Maintenance storage and utility tracks are planned to be located under SCE’s transmission lines. Initial site assessment indicates that the buildings required to house the light maintenance and layover buildings could be designed and located outside the drip lines of the transmission lines, although the proximity of these lines could limit the size of the facilities without relocating several transmission line supporting structures. SCE clearance requirements will be evaluated before Final Design to confirm suitability of this proposed site and determine final configuration of tracks and buildings.

Note that the extent of track and facilities shown in Figure 2.4-41 indicates the ultimate build-out of the facilities for the full projected fleet of 31 vehicles. Only a portion of these facilities will be required for the initial fleet of 16 vehicles.

These light maintenance facilities will be operated in conjunction with the existing Division 11 facilities to provide the planned maintenance and layover needs for the Mid-City/Exposition LRT vehicles. This adjacency to the existing Division 11 facilities will provide easy access to all of the facility types that Metro utilizes, including a paint shop, vehicle hoist, specialty shops, and other heavy maintenance needs.

2.4.3.3 Mid-Day Layover Site

For the temporary storage of LRT vehicles, a mid-day layover site would be established in an industrial area south of Downtown Los Angeles. A short section of abandoned rail ROW from Union Pacific Railroad would be provided for midday storage. The proposed track purchase is approximately 10 miles closer to the Mid-City/Exposition LRT alignment than Division 11 in Carson, which is currently provided as an overnight storage and maintenance yard (Figure 2.4-42).

The proposed ROW purchase is in the same median as the existing Metro Blue Line between the intersections of Long Beach Boulevard and Washington Boulevard to the north, Long Beach Boulevard and approximately 24th Street to the South, with a total area of approximately 60,000 square feet. Usable track still exists across the intervening intersections. Track will need to be reinstalled between the intersections, on the existing ballast. This track was occasionally used for empty freight car storage prior to the removal of the track within the last five years.
FIGURE 2.4-41
MTA DIVISION 11
MAINTENANCE FACILITY -
EXISTING AND PROPOSED SITES

SOURCE: DMJM Harris, Los Angeles County Assessor’s Office, & Terry A. Hayes Associates LLC
FIGURE 2.4-42

MID-DAY STORAGE AREA

SOURCE: Terry A. Hayes Associates LLC

MID-CITY/EXPOSITION LRT PROJECT FINAL EIS/EIR

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

PROPOSED MID-DAY STORAGE SITE

WASHINGTON BLVD
LONG BEACH BLVD
22ND ST
23RD ST
The description of the Mid-City/Exposition LRT Alternative described in the Draft EIS/EIR included a maintenance yard to be located within the Metro ROW near the intersection of Hooper Street and Central Avenue in South Los Angeles. Access to this maintenance area would be along the Metro ROW via a non-revenue connector. Public comments received on the Draft EIS/EIR indicated that there were community safety and proximity impact concerns because the non-revenue connector would pass through a densely populated low income minority neighborhood. As a result of these concerns, the Metro Board, when authorizing the Preliminary Engineering phase of the work, explicitly indicated that the Hooper and Central maintenance location not be considered further. After the evaluation of several alternate locations, the Preliminary Engineering team in consultation with Metro staff determined that an expansion of the Division 11 O&M facility in Carson was the most practicable option.

2.4.4 CONSTRUCTION SCENARIO

2.4.4.1 No Operation Construction Option

The No Operation Construction Option would not begin LRT operations until construction of the LPA is complete. Construction of the proposed Project would be divided into a number of linear segments to allow additional flexibility and simultaneous construction phasing. The objective of the phased, sequenced construction schedule is to provide the shortest practical construction duration, both overall and as experienced by individual neighborhoods and stakeholders along the proposed LRT alignment. By taking advantage of simultaneous scheduling and construction of the Project’s major structures and segments, it is anticipated that the total duration of construction can be accomplished in approximately 36 months. The anticipated year of completion is 2012.

Construction would occur simultaneously at several locations along the proposed alignment to accommodate areas requiring lengthy construction times. The objective of this approach is to bring the various segments to completion at approximately the same time.

Many contractors specializing in various methods of construction would be working on the Project selected for the overall length of the construction period. The physical construction would involve the method that is most suitable for each segment of the Project.

Construction of the Project would follow all applicable local, state, and federal laws for building and safety. Working hours would vary to meet special circumstances. Standard construction methods would be used for traffic control and noise, vibration, and dust control, consistent with all applicable laws.

2.4.4.2 Partial Operation Construction Option

The Partial Operation Construction Option would phase-in LRT operations in three segments as construction milestones are met. LRT operations from 7th Street/Metro Center to the Vermont Station would begin upon completion of this portion of the Project’s route in approximately 2008; while LRT operations to the Crenshaw Station would begin upon completion of this segment in approximately 2010. The final segment, from Crenshaw Boulevard to the Venice/Robertson Station, would be scheduled for completion in 2012.

This construction scenario is almost identical to the No Operation Construction Option, except that the simultaneous construction phasing would be focused on a goal to complete the Project in three consecutive operable segments.
INDEX TO TYPICAL CROSS SECTIONS

SOURCE: Terry A. Hayes Associates LLC, 2004

FIGURE 2.4-3
Cross Section A: Hill Street

Cross Section B: Hill Street to Figueroa Street
Cross Section C: USC/Exposition Park Station at Kinsey

Cross Section C2: West of USC/Exposition Park Station
Cross Section D: Vermont Station, East Bound Platform

Cross Section E: West of Vermont Avenue Near Raymond
Cross Section F: East of Western Avenue at Platform

Cross Section G: West of Western Avenue to St. Andrews Place
Cross Section H: St. Andrews Place to Wilton Place

Cross Section I: Wilton Place to 2nd Avenue
Cross Section J: East of Crenshaw Boulevard Between 9th and 10 Avenues

Cross Section K: Crenshaw Boulevard
Cross Section L: West of Crenshaw Boulevard Near Hillcrest

Cross Section M: Farmdale Avenue to La Brea Avenue (East of La Brea Station)
Cross Section N: La Brea to Sycamore

Cross Section O: Clover Dale Avenue to Carmona Avenue (Near Hauser)
Cross Section P: Carmona Avenue to La Cienega (Near Clyde)

Cross Section Q: La Cienega Station
Cross Section R: La Cienega Place to La Cienega Station

Cross Section S: Fay Street to Wesley Street
Cross Section T: Venice/Robertson Station
The Re-Evaluation/Major Investment Study along with the Draft EIS/EIR conducted a rigorous review, analysis, and screening of potential fixed guideway transit (Bus, Light Rail, Heavy Rail) alternatives that could serve as a replacement to the suspended Red Line project and provide an adequate level of service to residents and businesses in the Mid-City/Exposition Corridor. This process included extensive public discussion of environmental impacts as well as the technical conditions. The Locally Preferred Alternative (LPA) selected by the Metro Board of Directors considered all alternatives (especially the alternatives that reduced impacts in the area of the Non-Revenue Connection, near residential areas, and adjacent to schools, parks and religious institutions).

The Proposed Downtown and Venice/Robertson Design Options, La Cienega Station Parking Options, additional grade separations at Figueroa/Flower, La Brea and La Cienega/Jefferson presented in this Final EIS/EIR respond to and evaluate the concerns of the community based on comments received on the Draft EIS/EIR.

However, the No-Build alternative would not be consistent with or address the need to increase transit in the project area. Furthermore, the No-Build Alternative would be inconsistent with actions previously taken related to the suspended Red Line project.
The preparation of this Final EIS/EIR, together with the required circulation, public hearings, and review of the Draft EIS/EIR, ensures that all significant transportation and environmental impacts have been assessed, and that public participation and comments have been solicited to help guide the decision-making process.

The identification, examination, and assessment of all reasonable and feasible alternatives (Re-Evaluation/MIS and the Draft EIS/EIR) are necessary to meet the requirements of the National Environmental Policy Act (NEPA), as well as the California Environmental Quality Act (CEQA). CEQA requires similar environmental analysis in Environmental Impact Reports (EIRs) and public review for projects that will have significant effects on the environment. The State of California encourages joint preparation of EIRs and EISs and has produced guidelines to facilitate preparation of joint documents.

The purpose of the Final EIS/EIR is to evaluate the LRT Build Alternative along with its design options, as well as the No-Build Alternative. The document will allow the Metro Board of Directors to select the most appropriate project for the Mid-City/Exposition Corridor while ensuring that potentially significant environmental consequences are considered as part of this process. This Final EIS/EIR document will be circulated and made available as required by NEPA and CEQA to interested and concerned parties, including private citizens, community groups, the business community, elected officials, and public agencies.

This Final EIS/EIR will also be used by federal, state, regional, and local agencies to make discretionary decisions regarding this project.
Section 2.4 describes the Locally Preferred Alternative (LPA) adopted by the Metro Board of Directors in June 2001 and further modified in December 2003. In addition, a number of design options are described which have been considered as possible changes to the LPA in response to public comments on the Draft EIS/EIR. Six principal changes have been included and/or considered as changes to the original LPA. Changes to the Locally Preferred Alternative that are being recommended by Metro Staff as a result of the analysis contained in this Final EIS/EIR are summarized below.

1) Non-Revenue Connector/Rail Maintenance & Storage Facility - In response to concerns expressed by community groups south of Downtown Los Angeles, the “Non-Revenue Connector” and Rail Storage Yard described in the Draft EIS/EIR has been eliminated from the Project. The principal Rail Storage and Maintenance Yard will now be located at the existing Metro Blue Line Division #11 Rail Storage & Maintenance Yard located in the City of Carson. Mid-City/Exposition LRT trains will utilize the existing Metro Blue Line tracks to access the Division #11 Rail Storage & Maintenance Facility and will not require new tracks located along the “Non-Revenue Connector” tracks. Mid-day storage will be accomplished by acquiring additional right of way adjacent to the Metro Blue Line track between Washington Boulevard and 24th Street. This right-of-way was formerly used as a trackway for freight rail traffic and is well removed from residential neighborhoods.

2) Downtown Los Angeles Alignment Design Options - In response to concerns expressed by the City of Los Angeles and others, two design options to the original LPA alignment have been evaluated in the Downtown Los Angeles segment of the proposed Project. These include the Hill Street Couplet Design Option and the Flower Street Design Option. Following evaluation of the LPA and the two design options, staff has concluded that both the Hill Street Couplet Design Option and the Flower Street Design Option are superior to the previous LPA alignment. Therefore, staff recommends that the LPA alignment be revised in the Downtown area to either the Hill Street Couplet or the Flower Street alignment.

A comparison between the Hill Street Couplet and the Flower Street alignment identifies that the Flower Street alignment is shorter, more direct and serves a denser area than the Hill Street Couplet alignment. The average travel time for transit passengers is up to four minutes faster via the Flower Street route than via the Hill Street Couplet route. The Flower Street alignment, however, is more costly than the Hill Street Couplet due principally to a grade-separation that would be required at Flower Street/Exposition Boulevard/Figueroa Street. The additional funding required for this design option is available within the Project budget approved by the Metro Board of Directors in April 2005. Therefore, staff recommends the adoption of the Flower Street Design Option for the project alignment in the Downtown Los Angeles segment of the corridor. However, it should be noted that this budget requires significant funding from the City of Los Angeles and the University of Southern California. If these funds are not forthcoming, the Hill Street Couplet may be the only viable alternative.

3) Flower Street Design Option - USC/Exposition Park Undercrossing Design Options - Several comments on the Draft EIS/EIR raised concerns about the operation of at-grade light rail on Exposition Boulevard between Figueroa Street and Vermont Avenue. Specific stakeholders, including the University of Southern California, requested that a belowground alignment be considered. In response to these concerns, the Metro Board approved the Grade Crossing Policy for Light Rail Transit in December 2003 and specifically used the policy to evaluate the need for grade separations in the USC/Exposition Park area.

The analysis developed through the Grade Crossing Policy determined that the Flower Street design option would need to be grade separated in an area from just south of Jefferson Boulevard to just east
of Trousdale Parkway (approximately half way between Figueroa Street and Vermont Avenue). Grade separation was not specifically identified as necessary for the two alignments that followed Hill Street (LPA and Hill Street Couplet).

With regard to the Flower Street alignment option, the University of Southern California has requested, and helped to fund, additional design studies to evaluate further design options for that alternative. The undercrossing options address three key concerns regarding the Flower Street/Exposition Boulevard/Figueroa Street grade separation: 1) the location and design of the LRT portal; 2) possible covering or roof treatments for the underground trench segment including additional landscaping; and 3) the possible inclusion and location of a USC/Exposition Park Station which is a baseline station under the Hill Street Couplet Design Option and LPA alignment alternatives, but is an optional station for the Flower Street alignment alternative.

Metro staff does not have a recommendation with regard to 1) the location and design of the LRT portal; nor 2) possible covering or roof treatments for the underground trench segment including additional landscaping. Staff considers these architectural treatments and refinements of the undercrossing as design betterments that could be considered for inclusion in the project if the Flower Street Design Option is adopted and these architectural enhancements are supported by adjacent stakeholders and funded from sources outside of the presently identified project budget.

Metro staff, likewise, does not have a recommendation with regard to 3) the possible inclusion and location of an optional USC/Exposition Park Station. The staff recommended Flower Street Design Option is being designed not to preclude this station, in the event that additional funding is identified and there is community consensus to include it as a part of the Project. It should be noted, however, that inclusion of the optional USC/Exposition Park Station would not be possible if one of the above undercrossing options is adopted which relocates the Flower Street Design Option portal and extends the underground section from the vicinity of Trousdale Parkway to Watt Way. The optional station at USC/Exposition Park would only be possible with the baseline Flower Street Design Option that brings the LRT trains up to the surface in the vicinity of Trousdale Parkway or with the Modified Undercrossing that brings the LRT trains up to the surface in the vicinity of Kinsey Way. If the Extended Undercrossing design were selected, the underground segment would extend to the vicinity of Watt Way. With this design, LRT trains would operate below the surface in the vicinity of the optional USC/Exposition Park Station; effectively eliminating the feasibility of a station due to the high costs of subway station construction.

Without the inclusion of the optional USC/Exposition Park Station, the Flower Street design option would still provide two stations to serve the greater USC/Exposition Park community. These stations would be located at Jefferson/Flower and Vermont/Exposition. This is the same number of stations that would be provided by either of the Hill Street Couplet Design Option or the LPA Hill Street alignment, which would provide two stations to serve the USC/Exposition Park community at Exposition/Kinsey and Exposition/Vermont. The optional third station at USC/Exposition Park, that is being considered as a part of the Flower Street Design Option, would provide enhanced access for special events at the Los Angeles Memorial Coliseum and the Sports Arena and would provide slightly better transit access for venues in the eastern portion of Exposition Park.

4) **La Cienega Station Parking Facility** - The La Cienega Station has been designed as an aerial structure spanning over La Cienega Boulevard with a contiguous parking structure for approximately 500 spaces located on the southeast corner of Jefferson and La Cienega Boulevards. The parking structure was to be located on a site owned by the City of Los Angeles which was used as a construction staging site for the East Central Interceptor Sewer Project (ECIS Project).
In November, 2004, the Los Angeles City Council passed a motion (Ludlow/Parks) requiring further consideration by the City Council before it can be determined if the ECIS property will be made available for use as part of the Metro station. Reasons cited by the city for further consideration include new requirements by the U.S. Environmental Protection Agency for construction of an ECIS Project Air Treatment Facility and the need to consider other potential uses.

Metro has reviewed options for this parking facility with the City of Los Angeles Bureau of Sanitation and Bureau of Engineering to determine if a shared use of this land would be possible. Metro has developed concepts that would allow the ECIS Air Treatment Facility to occupy the eastern portion of the property and the Metro Parking Structure to occupy the western portion of the property. To date, resolution of this issue has been inconclusive.

In the event that the City of Los Angeles ECIS site should become unavailable for use as a station parking facility, an alternative has been developed on the southwest corner of Jefferson and La Cienega Boulevards. This site is privately owned and is currently operated as a Public Storage warehouse. The use of this site for station-related parking would require the relocation of this business and the acquisition of the property. This option would be pursued if the City of Los Angeles property cannot be made available for station parking. As such, the staff recommendation is to continue to work with the City of Los Angeles to develop the station related parking on the ECIS site as a joint development with the City of Los Angeles Bureau of Sanitation Air Treatment Facility.

5) Jefferson Boulevard Design Options: Grade Separation & Widening Options - The Draft EIS/EIR identified the need for a grade separation at La Cienega Boulevard and an at-grade crossing at Jefferson Boulevard. The cities of Los Angeles and Culver City raised concerns about potential traffic impacts of an at-grade crossing at Jefferson. In response to these comments, several design options were developed to evaluate a potential grade separation of the Jefferson Boulevard crossing. Because of the close proximity of Jefferson Boulevard to La Cienega Boulevard, all design options involved the extension of the planned grade-separation of La Cienega Boulevard over Jefferson Boulevard. This required that the structure extend across the Ballona Creek as well.

Following the review of several grade-separation options, the “Medium Bridge Design Option” is recommended by Metro staff as the preferred design from among the alternatives that were considered. The medium bridge option would extend the La Cienega Boulevard aerial guideway across Jefferson Boulevard and Ballona Creek, touching down just before Fay Avenue in Culver City. This design option would bring the aerial guideway back to grade east of the homes located north of Jefferson Boulevard, thereby eliminating any impacts of an aerial guideway in residential areas.

The traffic impact analysis for the relocation of Division 6 concluded that Jefferson Boulevard would need to be widened between La Cienega Place to accommodate buses turning west on to Jefferson from southbound La Cienega on route to Division 6. The original design of the LPA proposed to add two five-foot bike lanes on Jefferson Boulevard west of La Cienega within the existing street width by eliminating one of the two left turn lanes. Subsequent traffic analyses indicate that both eastbound Jefferson left turn lanes are needed. The combination of these requirements results in a need to widen Jefferson Boulevard by a total of 14 feet from La Cienega Boulevard to La Cienega Place.

Two options for widening Jefferson Boulevard have been identified; one involves widening the existing roadway to the north and the other involves widening the roadway to the south. The widening to the north would require the acquisition and relocation of several businesses located on a single parcel between La Cienega Boulevard and La Cienega Place. Widening to the south would not require right-of-way acquisition but would required a more costly aerial guideway structure to allow for widening of the roadway within the Metro owned right-of-way. By widening Jefferson Boulevard to the north, the elevated guideway west of La Cienega would be built on structurally engineered fill. If Jefferson Boulevard were...
widened to the south, a right turn lane would need to run under the bridge and thus, the elevated guideway would have to be supported by a bridge structure built on columns instead of earthfill.

For the above reasons, Metro staff will recommend the medium bridge option and the northside Jefferson Boulevard widening to the Metro Board of Directors as the staff preferred option for the La Cienega/Jefferson grade separation.

6) Venice/Robertson Station Design Options - The Locally Preferred Alternative adopted by the Metro Board of Directors in June 2001 called for an at-grade station at Venice/Robertson, with at-grade crossings of Washington and National Boulevards. The City of Culver City requested that this decision be reconsidered in favor of a grade-separated crossing of Washington and National Boulevards. The city cited severe traffic congestion and maintained that only an aerial station could successfully mitigate such impacts.

Following preparation of the Grade Crossing Policy for Light Rail Transit, the Metro Board agreed that an aerial station would be needed at some point in the future when the line is extended across Venice Boulevard. In the meantime, however, interim station designs have been developed in preliminary engineering that do not preclude future conversion to an aerial station. Funding is not available to consider full grade-separation at this time, and furthermore, a decision has not been made about the future extension of the Exposition Line and no alignment has been approved for such an extension. The design of the aerial station can be better developed in the future, when funding is identified and the routing of the future extension is known so that the aerial station can be designed in its optimum location. At that time, the grade-separation can be revisited.

In order to respond to the City of Culver City’s concerns about the at-grade crossings of Washington and National Boulevards, two additional interim station design options have been developed that do not require at-grade LRT crossings of these streets. The “North of ROW” Design Option would locate an interim station on a parcel of land bounded by National, Washington, Wesley and the Expo right-of-way. An industrial roofing supply company currently occupies this parcel. The “ROW” Design Option is located on the Metro owned railroad right-of-way in the vicinity of Wesley Street. This design option would not require any private property takings.

Metro staff is recommending adoption of the “ROW” Design Option but will continue to work with Culver City on these station design options to determine if consensus can be reached on a preferred station design for the Venice/Robertson Station. Comments received from the circulation of the Final EIS/EIR will be considered prior to the adoption of a preferred station design.

Revised Locally Preferred Alternative as Identified by Metro Staff - Based on the above rationale, and keeping within the adopted project budget of $640 million, the revised Locally Preferred Alternative recommended by Metro Staff would replace the Hill Street alignment in Downtown Los Angeles of the original LPA with the Flower Street Design Option. The Flower Street Design Option- Undercrossing design enhancements and optional station at USC/Exposition Park are not recommended for inclusion in the revised LPA at this time, unless additional funding can be identified outside of the existing project budget. A grade-separation and aerial station are recommended at La Brea. The La Cienega parking structure located on the ECIS property (southeast corner of La Cienega/Jefferson) is recommended over the alternate La Cienega parking site, with the condition that this site must be made available for use by the City of Los Angeles. The Jefferson grade-separation is recommended in lieu of the original LPA at-grade crossing of Jefferson Boulevard and the Jefferson Boulevard north widening is recommended over the southside widening option. Finally, the interim Venice/Robertson at-grade station located east of National Boulevard on the Metro right-of-way near Wesley Street is recommended over the original LPA at-grade Venice/Robertson site located between Washington and Venice Boulevards. This recommendation acknowledges that Metro will continue to work with the City of Culver City on designs
for a future grade-separated station at Venice/Robertson when additional funding outside of the existing approved project budget can be identified and other design-related issues have been resolved.
2.8 ROLE OF THE EXPOSITION METRO LINE CONSTRUCTION AUTHORITY

In 2004, the California Legislature adopted Public Utilities Code (Sections 132600-132650, et.seq.) to create the Exposition Metro Line Construction Authority (Authority). The Authority was created for the purpose of awarding and overseeing final design and construction contracts for completion of the Los Angeles Exposition Line Transit Project. Metro remains the lead agency for the purpose of planning and preparing this Final EIS/EIR. Responsibility for designing the project as well as incorporation and implementation of most mitigation measures identified in this Final EIS/EIR, will lie with the Authority. The Authority will be identified and assigned as a responsible agency or entity in a Record of Decision issued by the Federal Transit Administration following a 45-day Public Review Period and certification of this Final EIS/EIR by the Metro Board of Directors.