

CHAPTER 2—ALTERNATIVES CONSIDERED

This chapter describes the alternatives that have been considered to best satisfy the Purpose and Need described in Chapter 1. It begins with an overview of the alternatives considered and evaluated in the Alternatives Analysis (AA) Study and a description of the alternatives carried forward for further study in this Draft Environmental Impact Statement/Environmental Impact Report (EIS/EIR). Detailed descriptions of all components of the alternatives (including No Build, Transportation Systems Management (TSM), and all Build Alternatives and their station and alignment options) considered and evaluated in this Draft EIS/EIR are also presented in this chapter.

2.1 Introduction and Overview of Alternatives Considered

In the Fall of 2007, Metro initiated an Alternatives Analysis Study (AA Study) for the Westside Extension Transit Corridor. Although the Westside Extension has historically been envisioned as a heavy rail subway, various other modes were considered in the AA Study along with many different alignments. These included looking at alignment options other than Wilshire and Santa Monica Boulevards and other modes that included light rail transit, bus rapid transit, monorail in both above-ground and below-ground configurations.

In January 2009, following extensive community outreach and technical review, the Metro Board reaffirmed the historical preference for a heavy rail subway in this Study Area. The primary alignment along Wilshire Boulevard was chosen as the preferred route and Santa Monica Boulevard was identified as a possible branch alignment that could be considered in support of the primary Wilshire Boulevard route.

This decision by the Metro Board was reinforced by the voters of Los Angeles County when they approved the Measure R ballot measure in November 2008. This measure provided local sales tax funding for up to twelve new transit corridors throughout the County, including Westside Extension Corridor.

The ballot measure identified \$4.2 billion in funds for an extension of the subway from the existing Wilshire/Western Station to Westwood over a distance of approximately 9 miles.

Based on the above action, the Metro Board authorized the preparation of this Draft EIS/EIR to evaluate the above rail transit alternatives. This chapter provides a description of the alternatives considered.

2.2 Alternatives Screening and Selection Process

The screening and selection of alternatives can be broken down into two steps:

- Early Scoping and Alternatives Considered in the Alternatives Analysis (October 2007 through January 2009)
- Scoping Process and Refinement/Selection of Alternatives for this Draft EIS/EIR (March 2009 through October 2009)

2.2.1 Early Scoping and Alternatives Considered in the Alternatives Analysis (October 2007 through January 2009)

In October 2007, consistent with FTA guidance, an Early Scoping process was used to help define the appropriate range of issues and alternatives to be addressed in the AA Study. Two principal alignment alternatives were presented to the public (Figure 2-1). These two corridors (Wilshire Boulevard and Santa Monica Boulevard) were the recommended routes for the Westside Extension Project based on previous corridor alignment studies conducted in the 1980s, 1990s, and early 2000s, and represented street rights-of-way that could reasonably be used in an at-grade, elevated, or subway configuration.



Figure 2-1. Alignment Alternatives Presented at Early Scoping for the AA Study

During Early Scoping, the public provided input on the need for the Project, the transit technology, alignment route, and stations (Figure 2-2 illustrates the transit technologies considered) in the AA Study. The overwhelming majority of comments received from the public supported the need for a transit investment in the Study Area. The Wilshire subway alignment was the most favored route and technology. There was limited support for aerial/monorail, Light Rail Transit (LRT), or Bus Rail Transit (BRT) modes, with opposition to each of these modes expressed as well.

In addition, Early Scoping comments identified several activity centers, such as University of California, Los Angeles (UCLA), the Grove/Farmers Market, Cedars Sinai Medical Center/Beverly Center, that were not located along either of the two principal routes, but which could be considered for route deviations from these basic alignments. The public provided comments on station locations along the two principal routes, as well as in these areas not located along those routes.





Technology	Actual Operating Characteristics Normalized to 18 vehicles/hour/direction	Systems Sampled
HRT 	Up to 800 passengers/train (6 cars) Top Speed of 70 mph (32 mph average) Up to 14,000 Passengers/hour/direction	Metro Red Line Metro Purple Line
LRT 	Up to 425 passengers/train (3 cars) Top Speed of 55 mph (24-35 mph average) Up to 7,600 passengers/hour/direction	Metro Blue Line Metro Green line Metro Gold Line
Monorail 	Up to 350 passenger/train (6 cars) Top Speed of 40-50 mph (18-30 mph average) Up to 6,300 passengers/hour/direction	Las Vegas Monorail Seattle Monorail Disneyland Monorail Disneyworld Monorail
BRT 	Up to 100 passenger/bus (articulated) Top speed of 35 mph (13-22 mph average) Up to 1,800 passengers/hour/direction	Metro Orange Line Wilshire Metro Rapid

Figure 2-2. Transit Technologies

Based on public input and evaluation of alternatives to meet the project goals and objectives, 17 representative Build Alternatives were developed for evaluation in the AA Study in five major categories (Figure 2-3). These alternatives were all developed to improve mobility in the Study Area.

- Wilshire Boulevard-based Heavy Rail Transit (HRT) subway alignments
- Santa Monica Boulevard-based HRT subway alignments
- Combined Wilshire Boulevard/Santa Monica Boulevard HRT subway alignments
- HRT, LRT, and monorail elevated alignments
- BRT alignments



Figure 2-3. Universe of Alignment and Station Alternatives Identified following Early Scoping for Evaluation in the AA Study

Seven goals were established in the AA phase of planning and were used to both screen out alternatives and identify those alternatives to be carried forward into this Draft EIS/EIR.

- **Goal A: Mobility Improvement**—The primary purpose of the Project is to improve public transit service and mobility in the Westside Extension Transit Corridor. To evaluate the goal of mobility improvement, the evaluation examines how well each alternative improves the ability of residents and employees to reach desired destinations through the provision of high quality, convenient, and reliable east/west transit service.
- **Goal B: Transit-Supportive Land Use Policies and Conditions**—A major aspect of this goal is to locate transit alignments and stations in areas with existing land uses conducive to transit use or in those areas that have the greatest potential to develop transit-supportive land uses.
- **Goal C: Cost-Effectiveness**—This goal ensures that both the capital and operating costs of the Project are commensurate with its benefits.
- **Goal D: Project Feasibility**—The fourth goal is that the Project be financially feasible. Specifically, this goal helps ensure that funds for the construction and operation will be readily available and will not place undue burdens on the sources of those funds. The goal also includes minimizing risks associated with project construction.
- **Goal E: Equity**—This goal evaluates project solutions based on how fairly the costs and benefits are distributed across different population groups with particular emphasis on serving transit-dependent communities.
- **Goal F: Environmental Considerations**—The sixth goal is to develop solutions that minimize impacts to environmental resources and communities within the Study Area.

- Goal G: Public Acceptance—This goal aims to develop solutions that are supported by the public with special emphasis on residents and businesses within the Study Area.

In the 2009 AA Study, specific objectives and measures were developed and applied to assess the extent to which each alternative met each goal. The objectives and measures used in this Draft EIS/EIR draw upon and refine those used in 2009, reflecting current data and the more focused evaluation in the Draft EIS/EIR.

These goals and objectives expanded upon the Regional Objectives identified by the Southern California Association of Governments (SCAG) (see Chapter 1), and addressed the major considerations related to making choices among different transportation alternatives, such as effectiveness in improving mobility, impacts, cost-effectiveness, financial feasibility, and equity. The goals, objectives, and criteria used for this evaluation to screen out alternatives that did not perform as well as others appear in Figure 2-4.

The ability to improve travel mobility and reliably improve transit services and access within in the Study Area, and the other goals and objective were used as criteria to determine the technology for transit services. The Study Area ridership analysis demonstrated a need for a transit technology that could provide a capacity of more than 700 passengers per train set to accommodate the high-capacity peak-period loading along the Wilshire and Santa Monica alignments. HRT provides up to 800 passengers per train set; LRT provides up to 425 passengers per train; monorail provides up to 350 passengers per train; and BRT provides up to 100 passengers per articulated bus (Figure 2-2).

The AA Study analyzed the following technology options that were eliminated from further consideration:

- LRT
 - ▶ Requires the construction of a dedicated maintenance facility (estimated to be approximately 15 acres in size)
 - ▶ Does not have the capacity to support the transit demand and forecasted ridership
 - ▶ Transfer needed at Metro Purple Line Wilshire/Western Station, which may affect ridership and travel times
- Monorail
 - ▶ Requires the construction of a dedicated maintenance facility (estimated to be approximately 15 acres in size)
 - ▶ Additional training and less cross-utilization of Metro train operators
 - ▶ Transfer needed at Metro Purple Line Wilshire/Western Station, which may affect ridership and travel times
- BRT
 - ▶ Lowest cost mode studied, but it would not be in an exclusive right-of-way
 - ▶ Ridership and travel-time savings would be substantially lower than with the rail alternatives

- ▶ System capacity of BRT is substantially lower than that of HRT, LRT, or monorail

As a result, HRT was identified as the preferred technology for further study because it has the capacity to meet the anticipated ridership demand and limit the number of transfers, which would improve transit services, mobility, and travel time for travel within, to, and from the Study Area.

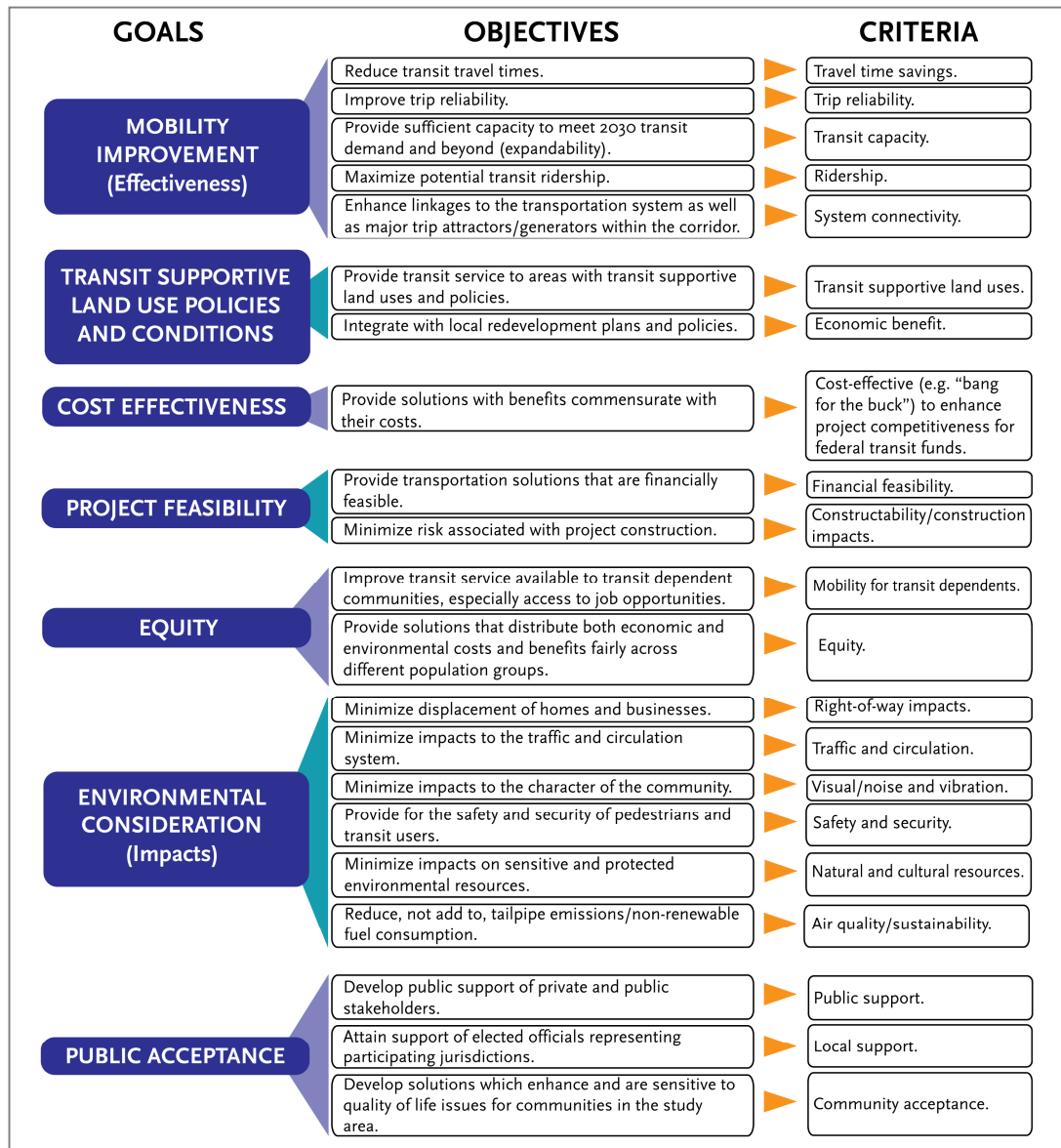


Figure 2-4. Goals, Objectives, and Evaluation Criteria

Based on the pros and cons of the 17 conceptual alternatives (through an evaluation that applied technology carrying capacity and the goals and objectives—all of which responded to the Project’s Purpose and Need), alternatives were dropped from further consideration or carried forward for additional screening (the AA Study provides details on the evaluation results).

Through this analysis, the BRT Alternative was not recommended to be carried into the next phase of analysis. BRT is a good near-term solution and has been funded for implementation as a separate project that is included in the No Build and TSM Alternatives; however, it does not provide sufficient capacity for the longer term needs of the Study Area and does not provide as reliable a trip-time performance as the HRT alternatives. Currently, within the City of Los Angeles, a federally sponsored program will provide peak-period bus lanes as a quality near-term solution that will continue to provide benefits even after construction of one of the proposed Build Alternatives. .

After further comparative analysis as to what would be the best performing Wilshire alignment and the best performing “combined” Wilshire-Santa Monica alignment, the remaining alternatives were then reduced to heavy rail subway alignment alternatives: Alternative 1 and Alternative 11. Figure 2-5 provides an overview of the evaluation process used during the AA Study to identify and screen alternatives and to identify those alternatives that best met the Project’s Purpose and Need to carry forward into the Draft EIS/EIR.

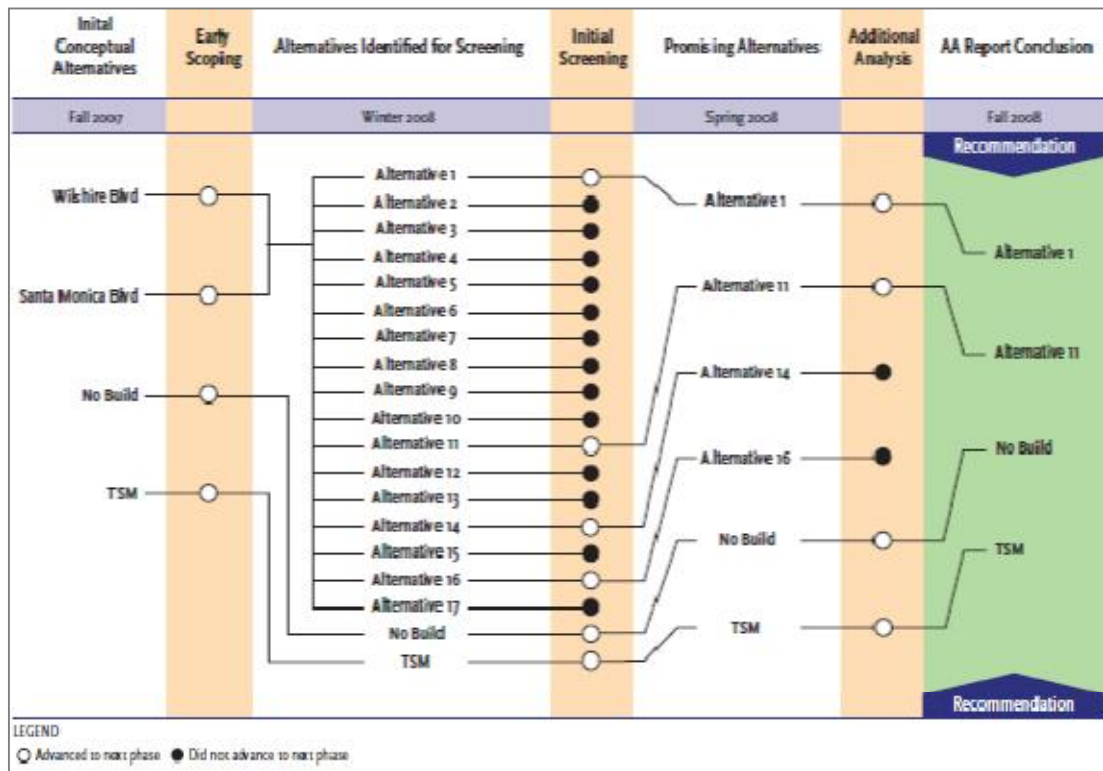


Figure 2-5. Alternatives Analysis Process

- **Alternative 1**—Wilshire Boulevard Alignment HRT Subway extends from the Metro Purple Line Western/Wilshire Station to Wilshire Boulevard and 4th Street in Santa Monica underground with 10 stations and 1 optional station (Figure 2-6).
- **Alternative 11**—Wilshire/Santa Monica Boulevards Combined HRT Subway includes the full Wilshire Boulevard HRT Subway and adds a second line extending west from the Metro Red Line Hollywood/Highland Station via Santa Monica Boulevard to join the Wilshire Line in Beverly Hills, underground with 14 stations and 1 optional station (Figure 2-7).



Figure 2-6. AA Study Alternative 1

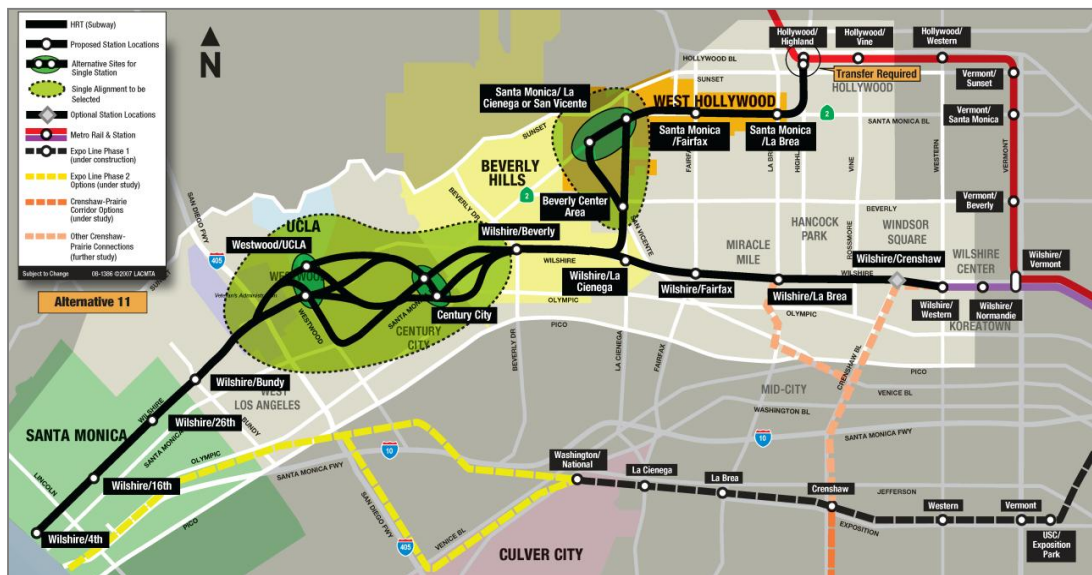


Figure 2-7. AA Study Alternative 11

These two alternatives were recommended in the AA Study to be carried forward into the Draft EIS/EIR. The No Build Alternative is included in this Draft EIS/EIR to provide a comparison of what future conditions would be if the Project were not implemented. A TSM Alternative is also included as a low-cost alternative that would meet some aspects of the Purpose and Need.

2.2.2 Scoping Process and Refinement/Selection of Alternatives for this Draft EIS/EIR (March 2009 through October 2009)

With the approval by the Metro Board of Directors of both the AA Study and the recommended alternatives, Metro initiated the Draft EIS/EIR phase. During the scoping process for this phase, Metro presented the public with the two recommended AA Study alternatives at a series of National Environmental Policy Act/California Environmental Quality Act (NEPA/CEQA) scoping meetings to solicit further public input on the alternatives. In response to public scoping comments, Metro agreed to include certain alignment and station options in the Century City to Westwood area and along the West Hollywood Branch (formerly the Santa Monica) alignment (green-shaded portions in Figure 2-6 and Figure 2-7).

After the public scoping meetings, Metro refined the two Build Alternatives based on public comments (Chapter 8 of this Draft EIS/EIR and the *Westside Subway Extension Scoping Report* provides more details on the scoping process and comments received), design considerations, and avoidance and minimization of impacts. Furthermore, different alignment lengths were introduced for consideration based on funding availability and priorities developed in the LACMTA Long Range Transportation Plan.

Public comment focused on the areas discussed below (refer to the *Post Scoping Analysis and Refinement of Alternatives* for more details on the refinement process). Through update meetings with the public and public agencies, Metro considered, evaluated, and eliminated various alignment and station options, and ultimately developed the alternatives recommended for evaluation in this Draft EIS/EIR. The alternatives that were recommended for further evaluation meet the Purpose and Need.

Wilshire/Fairfax Station Options

The scoping alternatives showed a single station at Wilshire/Fairfax, west of Fairfax Avenue. This location was selected to move the station as far as possible from the gassy ground near the La Brea Tar Pits while still serving the Los Angeles County Museum of Art (LACMA). Scoping comments stated that the Wilshire/Fairfax Station should more directly serve LACMA and the Page Museum/Hancock Park facilities, which are major activity centers. To address these comments, a second station site closer to the LACMA and park facilities, which meet the need to improve access to major activity and employment centers in the Study Area, is included in the Draft EIS/EIR for more detailed analysis.

Wilshire/La Cienega Station Options

Different station locations were examined to respond to public comment and address potential connections and transfers to a future West Hollywood alignment. There was strong public preference for a station location east of La Cienega Boulevard; however,

this station location could not serve as a direct passenger transfer or connection station for the West Hollywood line. The eastern location also offered more potential for development, more transit-oriented development opportunity and fewer impacts on the surrounding residential areas. In addition, a separate connection structure was proposed to be constructed near Wilshire and Robertson Boulevards to facilitate possible track connections to the West Hollywood Line. However, in order to transfer, passengers would need to travel to the Wilshire/Rodeo Station.

Another station option was developed to have a station that would allow for direct passenger transfers to the West Hollywood Line at Wilshire/La Cienega. This option meets the Purpose and Need to improve Study Area mobility and opportunities for transit supportive development. This station option would be located west of La Cienega. As a result, two station location options were carried forward for further review in this Draft EIS/EIR.

Century City Station and Alignment Options

Wilshire/Rodeo Station to Century City Station

The different Century City Station options necessitated the development of different route options between the Wilshire/Rodeo Station and Century City Stations. The route to the Century City Station on Santa Monica Boulevard traveled west on Wilshire Boulevard and turned under Santa Monica Boulevard. A route to connect to the station on Constellation Boulevard traveled a more direct route, turning before Santa Monica Boulevard directly toward Constellation Boulevard. Another option generally along Lasky Drive was developed in response to scoping comments to consider ways to minimize subsurface easements under residential properties. As a result of further analysis, these three routes were carried forward for further analysis in this Draft EIS/EIR.

Century City to Westwood/UCLA Station

The AA Study identified multiple sites for subway stations in Century City and Westwood and multiple connecting routes between the different stations. Four Century City station locations were considered (Santa Monica Boulevard at Avenue of the Stars and at Century Park East, Constellation Boulevard at Avenue of the Stars, and Avenue of the Stars between Constellation and Santa Monica Boulevards). The Santa Monica Boulevard Station at Century Park East was eliminated because of better urban design characteristics at other station options, lower ridership, and its farther distance from the core of Century City. The Avenue of the Stars Station was also eliminated as it would provide similar benefits to the Constellation Boulevard Station but would increase travel time and would be less cost-effective thereby not meeting the Purpose and Need. Therefore, the other two stations (Santa Monica Boulevard at Avenue of the Stars and Constellation Boulevard at Avenue of the Stars) were carried forward into the Draft EIS/EIR.

Six station location options were considered in Westwood: Wilshire Boulevard at Westwood Boulevard, Wilshire Boulevard at Gayley Avenue (in UCLA Lot 36), Westwood Boulevard at Lindbrook Drive, Westwood Boulevard at Lindbrook Drive but shifted north, Le Conte Avenue at Westwood Boulevard, and Le Conte Avenue at Westwood Boulevard but shifted west. After analysis, both Le Conte Avenue and both Westwood

Boulevard Stations were eliminated because there were no substantial benefits that justified their increased cost, travel time, and environmental costs and community concerns (crossing under the National Cemetery and more residential/commercial properties than other options, as well as added construction impacts) and the degree to which they could meet the Purpose and Need relative to the other options. Therefore, the other two options (Wilshire Boulevard at Westwood Boulevard and Wilshire Boulevard at Gayley Avenue in Lot 36) were carried forward for analysis in this Draft EIS/EIR.

Six general routes were considered for connecting the Century City and Westwood Stations (Selby Route, Golf Course Route, Cross Country Route, Cross Country plus Westholme Route, Westwood Boulevard Route, and Westwood Loop Route). By combining station options with route options, a total of 22 route options were considered that covered the spectrum from the Los Angeles Country Club golf course on the east to Westwood Boulevard on the west. After station options were selected, several route options were not functional and were therefore eliminated. Other routes (Golf Course) that appeared to reduce tunneling under residential properties did not actually reduce the number of easements required under residences (682 to 833 for the Cross Country routes versus 1,356 to 2,040 for the Golf Course routes) and were more costly and slower, and were therefore eliminated.

The Cross Country routes were considered beneficial because they were the most direct and therefore least expensive and faster. Some routes were eliminated because of impacts to historical and religious facilities. The Westwood routes, while generally longer, more costly, and slower, were considered as a result of community interest in serving the Westwood Boulevard businesses and residences and potentially reducing the number of easements required beneath residential properties, allowing a review of scoping comments, more detailed engineering and environmental studies and targeted stakeholder outreach were conducted to narrow the route options to three: an East route, Central route, and West route. These three routes were carried forward for further analysis in the Draft EIS/EIR. These routes were initially referred to as the Direct Connection, Cross Country, and Westward loop, but were renamed at the suggestion of the public in June 2010. The East route provides the shortest, fastest, and least costly route between Century City and Westwood, and it tunnels under fewer residential properties than the Central or West routes.

Westwood/VA Hospital Station Options

During scoping, the public suggested that an additional station should be provided west of the Interstate 405 Freeway because there was too much distance between the Westwood/UCLA and Wilshire/Bundy Stations (original stations identified during the AA). Additionally, by extending the Project one station west of I-405, access for residents west of I-405 would be significantly improved, and the Project would still be within Measure R funding. Therefore, the station options west of I-405 were evaluated as a potential terminus station. Additional station sites were considered at the Veterans Administration (VA) Hospital, Federal Avenue, and Barrington Avenue. Federal Avenue was eliminated from further consideration due to its close proximity to the potential Barrington Avenue and VA Hospital Stations, and it would impact more residential properties than these other two stations. The VA Hospital Station was considered a

better terminus station than the Barrington Avenue Station. At that time the VA expressed interest in a station on its property, and station spacing between Westwood and Bundy was better with this station. Since the VA Hospital Station was considered a better terminus station, the Barrington Avenue location was eliminated from further consideration because it would be too close to the VA Hospital. Based on further comment from the VA, a second station location on VA property was added, and both were carried forward for analysis in this Draft EIS/EIR. One of the two potential station locations at the VA Hospital—VA Hospital South or VA Hospital North—could be part of a Build Alternative.

West Hollywood Alignment Options

During scoping for the Draft EIS/EIR, the public was presented with two possible routes for the West Hollywood alignment for the north/south segment between Santa Monica and Wilshire Boulevards: one followed La Cienega Boulevard and one followed San Vicente Boulevard. The two routes located the stations for the Santa Monica Boulevard/La Cienega Boulevard and Beverly Center areas, which would result in differences in ridership, impacts, and access to and from destinations, and community preference. A screening analysis was performed on the two route options examining these factors, as well as engineering and construction feasibility, urban design considerations, and cost differentials. Based on the analysis conducted, it was recommended to eliminate the La Cienega Boulevard alignment from further consideration. The San Vicente Boulevard alignment is a longer alignment and therefore more costly; however, it performs substantially better in terms of urban design and community preference. It also provides better connectivity to destinations and entertainment venues along Santa Monica Boulevard, as well as to Cedars Sinai Medical Center. This option meets the Project's Purpose and Need to improve Study Area mobility and access to major activity centers. As a result, the San Vicente Boulevard route was carried forward for further analysis in this Draft EIS/EIR.

Selection of the Draft EIS/EIR Alternatives

After ongoing feedback from the public, Metro refined the options within each of the areas described above. The conclusion of this refinement process was the identification of a No Build Alternative, a Transportation Systems Management (TSM) Alternative, five Build Alternatives, and six station and alignment options. The following two sections (Section 2.3 and Section 2.4) describe the alternatives analyzed in this Draft EIS/EIR. Section 2.8 presents phasing options (or minimum operable segments [MOS]) for the Build Alternatives.

2.3 No Build and Transportation Systems Management (TSM) Alternatives

This section describes the No Build and TSM Alternatives. The No Build Alternative is included in this Draft EIS/EIR to provide a comparison of what future conditions would be if the Project were not implemented. A TSM Alternative is included as a low-cost alternative that would meet some aspects of the Purpose and Need.

2.3.1 No Build Alternative

The No Build Alternative provides the transportation network in 2035 as a means of understanding what the transportation environment would be like without any improvements beyond those that are currently committed. The No Build Alternative includes all existing highway and transit services and facilities, and the committed highway and transit projects in the *2009 Metro Long Range Transportation Plan* (LRTP) and the *2008 SCAG Regional Transportation Plan* (RTP).¹ Under the No Build Alternative, no new infrastructure would be built within the Study Area, aside from projects currently under construction or projects funded for construction, environmentally cleared, planned to be in operation by 2035, and identified in the adopted Metro LRTP.

Highway System

I-10 and I-405 are the primary east/west and north/south freeway routes, respectively, for commuters within the study area. The No Build Alternative includes the southbound I-405 high-occupancy vehicle (HOV) lane from Sunset Boulevard to State Route 90, and a northbound HOV lane from I-10 to the I-101 Freeways, for a total distance of 10 miles of HOV lanes.

Transit System

Several public transit agencies serve the Study Area, including bus and rail services by Metro, the Los Angeles Department of Transportation (LADOT), Santa Monica Big Blue Bus, Antelope Valley Transit Authority, Santa Clarita Transit, West Hollywood City Line, and the Culver City Bus. The bus and rail services in the Study Area with the No Build scenario are shown in Figure 2-8.

Metro Rail

Metro's Blue, Purple, Red, Green, and Gold Lines currently serve Los Angeles County. Of these, the Metro Red and Purple Lines serve Downtown Los Angeles, Koreatown, and Hollywood on the east side of the Study Area. The 14.8-mile Metro Red Line has two stations within the study area: the Hollywood/Highland Station and the Hollywood/Vine Station. The 4.4-mile Metro Purple Line has one station in the study area: the Wilshire/Western Station.

By 2035, several approved urban rail projects are expected to be in operation and are assumed within the No Build Alternative. These include the following:

- Exposition Light Rail Transit Project Phases 1 and 2 (Expo 1 and Expo 2). Expo 1 will connect Downtown Los Angeles with the Westside at Culver City and have 11 stations. Expo 2 would add 7 miles and 7 stations, terminating in Downtown Santa Monica in the vicinity of 4th Street and Colorado Avenue.
- The Metro Gold Line Foothill Extension is planned to extend the existing Pasadena Gold Line from the Sierra Madre Villa Station to the Azusa/Citrus community.

¹ Metro is working with SCAG to update the RTP, which would add the projects identified in Metro's LRTP into the RTP. It is anticipated that the update will be completed in fall 2010.



Figure 2-8. No Build Alternative Bus and Rail Service within the Study Area
(White background represents Westside Extension Study Area)

- The Metro Regional Connector is an approximately 2-mile transit link between the Metro Gold and Metro Blue Line through Downtown Los Angeles. The Regional Connector aims to improve access to both local and regional destinations by providing continuous service among Metro Rail lines, including future planned and funded urban rail projects under Measure R, such as the Metro Gold Line Eastside Extension and Expo Line Phase 2.
- The Metro Gold Line Eastside Extension Phase 2 considers LRT alternatives to connect cities east of Los Angeles with the terminus of Phase 1 at the Atlantic Station.
- The Crenshaw/LAX Transit Corridor Project would be a light rail transit line that stretches 8 miles from the I-105 Freeway to the Expo Corridor.
- The South Bay Metro Green Line Extension would extend the existing Metro Green Line from its current terminus at the Redondo Beach Station or Century Aviation to the Torrance Transit Center.
- Enhancements are planned for the Division 20 Maintenance and Storage Facility.

In addition to the Metro lines, the No Build Alternative includes the proposed LAX Automated People Mover (APM), which is part of the LAX Master Plan and will be built and operated by Los Angeles World Airports. The APM will operate between a new Intermodal Transportation Center north of Metro's Green Line Aviation/LAX Station and the LAX terminals, with a connection to the Crenshaw/LAX Line at Aviation/Century.

Buses

Several transit agencies (e.g., Metro, LADOT, the Santa Monica Big Blue Bus, and the Culver City Bus, among others) provide bus transit services within the Study Area. The No Build Alternative includes all the existing bus service provided by Metro and the other transit agencies; it also reflects Metro's plans to restructure its bus routes system-wide, eliminating duplicate service or reducing service on routes that will be serviced by rail other than potential Westside Subway Extensions. It also incorporates two planned projects:

- The Metro Orange Line Extension is a 4-mile dedicated busway linking the Metro Orange Line from the Canoga Station to the Chatsworth Metrolink Station. Four new stations will be located at Sherman Way, Roscoe Boulevard, Nordhoff Street, and the Chatsworth Train Depot. The Metro Orange Line Extension is expected to be in service in 2012.
- The Wilshire Bus Rapid Transit Project proposes dedicated curbside bus lanes during the morning and evening rush hours along Wilshire Boulevard to the Santa Monica City line, excluding the City of Beverly Hills. The project is currently in environmental review and is funded for construction.

2.3.2 TSM Alternative

The TSM Alternative emphasizes more frequent bus service than the No Build Alternative to reduce delay and enhance mobility. As such, the TSM meets some aspect of the Purpose and Need to provide enhanced transit service and improved mobility in the Study Area. The TSM Alternative contains all elements of the highway, transit, Metro Rail, and bus service described under the No Build Alternative. In addition, the TSM Alternative increases the frequency of service during peak periods for Metro Rapid Bus Line 720 (Santa Monica–Commerce via Wilshire Boulevard and Whittier Boulevard). The bus and rail services in the Study Area with the No Build scenario are shown in Figure 2-9.

Under the No Build Alternative, during peak periods, the Metro Rapid Bus Line 720 operates at a frequency of five minutes in the peak flow direction and ten minutes in the nonpeak flow direction. The TSM Alternative increases the frequency of Metro Rapid Bus Line 720 in both directions to three to four minutes during the peak period. This means that nonpeak flow buses run roughly twice as often during the peak period in the peak flow direction compared to the No Build Alternative.

The service area of the Metro Rapid Bus Line 720 is the same for both the No Build and TSM Alternatives. The existing Metro Rapid Bus Line 720 runs between 4th Street and Colorado Avenue in Santa Monica to Commerce Center in Commerce..

For the TSM Alternative, bus service would be increased to meet the rising demand for transit service in the Study Area. As indicated in Table 2-1, the frequency of the following Metro bus lines would be increased: 2, 4, 14, 16, and 720.

In the TSM Alternative, Metro Purple Line rail service to the Wilshire/Western Station would operate in each direction at 10-minute headways during peak and off-peak periods. The Metro Red Line service to Hollywood/Highland Station would operate in each direction at five-minute headways during peak periods and at 10-minute headways during midday and off-peak periods.



Figure 2-9. TSM Alternative