



WESTSIDE SUBWAY EXTENSION PROJECT

Station Circulation Report



December 2011

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1.0 INTRODUCTION

This report details the analysis of pedestrian, bicycle, bus, and automobile access and circulation for the stations of the Locally Preferred Alternative (LPA). This analysis took into account the Metro Rail Design Criteria (Design Criteria), which indicate that access modes should be ranked in the following order of priority:

- Pedestrian
- Cyclist
- Bus
- Auto (taxi, kiss-and-ride)

Ranking the modal priority for station access is an acknowledgement that the needs of different modes often compete with each other when there are limits to the physical right-of-way (ROW) of streets. For example, widening a sidewalk or adding a bike lane to a street could come at the expense of traffic operations because a travel lane might need to be removed. Installing a bicycle lane could mean that pedestrian enhancements, such as curb extensions, may not be possible. By prioritizing the modes, the Design Criteria indicate that it is more important to minimize trade-offs that will negatively affect pedestrian and bicycle modes than to minimize trade-offs that will affect auto modes. However, using a more managed approach to station access that balances all modes could help to minimize the overall ROW needed because non-automobile modes (bus, pedestrian, and bicycle) can transport more people in less space than will be required if the same number of people traveled via automobile.

1.1 Station Access Recommendations for the Project

This report evaluates potential station access modes based on the Design Criteria. Based on this evaluation, the report identifies features recommended for implementation that improve station access, including enhancements to stations on Metro property and safety enhancements to be implemented by Metro when it restores streets and sidewalks after construction. These recommendations are to be considered project features and are recommended for incorporation into the environmental document.

1.2 Optional Access Enhancement Recommendations

Beyond the recommended measures, optional access enhancements are identified that could further improve station access. While these enhancements would be beneficial, they would often require implementation by local jurisdictions or other parties and are therefore outside of Metro's purview. It is recommended that Metro coordinate with the appropriate local jurisdiction to assist in the implementation of these access enhancements to the extent feasible. Metro can design its facilities to accommodate improved station access if local jurisdictions ultimately implement multi-modal access enhancements adjacent to stations. The trade-offs that would occur if access enhancements are implemented are documented in this report.

1.3 Other Considerations

The Design Criteria can determine the minimum level of bicycle parking recommended in station areas, but Metro Bicycle Program policies are also identified in this report to provide direction for the desired outcome of the quantity and design of bicycle parking facilities. Included in these policies are guidelines on potential bike parking capacity that relates parking supply to potential daily station demand. A potential share of 1.3 percent of total station boardings has been identified in the Metro Bicycle Program policies as a target for bicycle parking.

This report also incorporates the findings of Metro's *Feeder Service Operations Planning Report*, which documents the number of bus stopping bays in each station area needed to support anticipated connecting bus service levels. Recommended locations and potential trade-offs of implementing bus stopping bays in those particular locations are detailed.

1.4 Multiple Station Entrance Options

At stations with more than one entrance option, much of the station circulation analysis is the same between entrance options. Therefore, for any subsequent entrance option, only the circulation analysis that differs from the fully analyzed station entrance is presented.

2.0 WILSHIRE/LA BREA STATION

Two entrance options are proposed for the Wilshire/La Brea Station, one with an entrance near the northwest corner of the intersection of La Brea Avenue and Wilshire Boulevard, and one on the southwest corner.

2.1 Wilshire/La Brea Station North Entrance Option

2.1.1 Station Entrance Location

The north entrance option of the Wilshire/La Brea Station would locate the station entrance on the northwest corner of the Wilshire Boulevard and La Brea Avenue intersection on Metro-owned property, at the current site of the Metro Customer Center. The entrance would be oriented toward the north and would consist of two sets of stairs and escalators. Station elevators would be located to the west of the entrance options. A knockout panel would be located near the southwest corner of the Wilshire Boulevard and La Brea Avenue intersection.

2.1.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be along Wilshire Boulevard and La Brea Avenue. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity (approximately 500 feet from the station entrance).

2.1.2.1 Sidewalks

Sidewalks are continuous on both Wilshire Boulevard and La Brea Avenue, with relatively few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks range from 14 feet to 20 feet on Wilshire Boulevard and 10 feet to 14 feet on La Brea Avenue. Sidewalks are well maintained in the station vicinity. The Metro Rail Design Criteria (Section 6.12.4) do not specify preferred dimensions for sidewalks in the public right-of-way adjacent to Metro stations. However, a minimum width of 8 feet, and a preferred width of 12 feet, is specified for walkways on Metro property through bus stop areas. Based on these criteria, the sidewalk width on Wilshire Boulevard and La Brea Avenue is adequate as currently constructed, with the exception of at the Metro Rapid bus stop on Wilshire Boulevard west of La Brea Avenue where the bus shelter decreases the sidewalk width at this location to less than 8 feet.

2.1.2.2 Street Cross-Sections

Wilshire Boulevard has an approximately 66-foot curb-to-curb cross-section with two full-time travel lanes in each direction, one part-time parking lane/travel lane in each direction, and left-turn pockets at each intersection within the station vicinity.

La Brea Avenue has an approximately 69-foot curb-to-curb cross-section with two full-time travel lanes in each direction, one part-time parking lane/travel lane in each direction, and left-turn pockets at each intersection within the station vicinity.

2.1.2.3 Crossings

Table 2-1 summarizes the pedestrian crossing characteristics of the intersections within the station vicinity (approximately 500 feet from the station entrance).

Table 2-1: Pedestrian Crossing Facilities Wilshire/La Brea Station North Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramp Type
Wilshire Boulevard/ Cloverdale Avenue	Signalized	Countdown. Push button actuated across Wilshire Boulevard	White parallel, installed on all legs, 14feet width. Median on Wilshire Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zones provided on all ramps.
Wilshire Boulevard/ Detroit Street	Signalized	Countdown. Push button actuated across Wilshire Boulevard	White parallel, installed on all legs, 14feet width. Median on Wilshire Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zones provided on all ramps.
Wilshire Boulevard/ La Brea Avenue	Signalized	Countdown. Pre-timed across all legs	White parallel, installed on all legs, 14feet width. No Median. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps except southeast corner.
Wilshire Boulevard/ Sycamore Avenue	Signalized	Countdown. Push button actuated across Wilshire Boulevard	White parallel, installed on all legs, 14feet width. Median on west leg of Wilshire Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones are not provided at any curb ramp.

Source: Fehr and Peers, 2011

The following Design Criteria requirements for pedestrian access have been used to assess the pedestrian interface at this station:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with all crossings in the vicinity of the station area being signalized, so this criterion is met.
- *Crossings shall be designed in accordance with Americans with Disabilities Act Accessibility Guidelines (ADAAG)*—ADAAG requirements dictate that flat landings of a minimum of 36 inches at the top of curb ramps, and 48 inches minimum clear space at the bottom of diagonal curb ramps be provided. An example of an intersection that lacks an adequate clear zone is illustrated in Figure 2-1. The guidelines also dictate that yellow truncated dome strips be installed on curb ramps. An example of the installation of truncated domes at a curb ramp is shown in Figure 2-2. As indicated in Table 2-1, some crossings do not meet current ADA requirements, so this criterion is not met.

Figure 2-1: Inadequate Clear Zone



Source: Fehr and Peers, 2011

Figure 2-2: Truncated Domes



Source: Fehr and Peers, 2011

- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Both Wilshire Boulevard and La Brea Avenue are wider than four lanes. Medians installed on Wilshire Boulevard at Cloverdale Avenue, Detroit Street, and the west leg of Sycamore Avenue, provide partial refuge for pedestrians crossings. No refuge is provided at the intersection of Wilshire Boulevard and La Brea Avenue, therefore this criterion is not met.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Crosswalk are striped with standard, white parallel treatments, so this criterion is not met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 14 feet wide, so this criterion is met

2.1.3 Bicycle Access

2.1.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

Existing bicycle routes are located on 4th Street east of La Brea Avenue, and on Redondo Boulevard south of Olympic Boulevard. No bicycle facilities currently exist within 500 feet of the proposed station entrance.

The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- Wilshire Boulevard (bicycle lanes)
- 4th Street (bicycle friendly street)

2.1.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

The following bicycle facilities have been identified for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan:

- La Brea Avenue (bicycle lanes)
- Redondo Boulevard (bicycle lanes)
- Cochran Avenue (bicycle-friendly street)
- Mansfield Avenue (bicycle-friendly street)

2.1.4 Bus Access

2.1.4.1 Location of Bus Stops

Bus stops for Metro Rapid Line 720 are on the north side of Wilshire Boulevard, just west of La Brea Avenue (westbound buses) and on the south side of Wilshire Boulevard east of La Brea Avenue (eastbound buses).

Bus stops for Metro Line 20 are on the north side of Wilshire Boulevard, west of La Brea Avenue immediately adjacent to the Rapid stop, (westbound buses), and on the south side of Wilshire Boulevard, west of La Brea Avenue (eastbound buses).

Bus stops for Metro Lines 212 and 312 are on the west side of La Brea Avenue just north of Wilshire Boulevard (southbound buses) and on the east side of La Brea Avenue just south of Wilshire Boulevard (northbound buses).

The bus stop for the DASH Fairfax Line (clockwise buses) is located at the southbound Metro Lines 212/312 stop.

2.1.4.2 Shuttle Services

The station area is currently served by a DASH line. Metro lines on La Brea Avenue and Wilshire Boulevard provide access to primary destinations beyond a typical one-quarter mile walk distance in the station vicinity.

2.1.5 Auto Access

An LADOT parking lot is located on the site of one of the proposed entrances. No taxi stands were observed near the proposed entrance.

2.1.6 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

2.1.6.1 Pedestrian Access

Sidewalks

To the extent it is feasible, widen the sidewalk on blocks immediate adjacent to parcels Metro controls, including the station entrance, construction laydown area, and any sidewalks affected by station box construction, to ensure that there is a minimum 12-foot sidewalk, including adjacent to the shelter for the westbound Metro Rapid bus stop.

Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install highly visible decorative or otherwise differentiated crosswalks at intersections that will be affected by station box construction. Maintain the existing 14 feet width of all crosswalks at a minimum. Install advance stop bars at these intersections similar to Figure 2-3.
- At all signalized intersections affected by station box construction, upon restoration, ensure that pedestrian signal timings reflect the 2009 requirements of the *Federal Manual of Uniform Traffic Control Devices* (MUTCD) to reduce the assumed pedestrian walking speed from 4.0 feet per second to 3.5 feet per second to reflect average pedestrian walking speeds. The California MUTCD has not yet adopted this change, which is likely to be approved later in 2011.

Figure 2-3: Advance Stop Bar



Source: Fehr and Peers, 2011

2.1.6.2 Bicycle Access

Bicycle Network

Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, and will be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

Bicycle Parking Demand Factors

The demand for bicycle parking will vary based on several factors including the number of riders who choose to bring their bicycle on the subway, the demographics of the station area population, whether the station area is primarily residential or employment in nature, and the overall accessibility and bicycle facilities in the station area. These factors are detailed below:

- Stations that are surrounded by residential uses are likely to experience higher demand for bicycle parking because subway riders who bike to stations may choose to park their bicycle at the station if they do not need it to complete their trip once they exit the subway.
- Income demographics for residents and workers of station areas affect their likelihood to use a bicycle for their transportation. Higher income people are less likely to use a bicycle for transportation.

- Stations that are surrounded by employment uses would have lower demand for bicycle parking because subway riders are more likely to either bring their bikes with them on the subway to complete their trip (using their bicycle for both first mile and last mile), or park their bicycle at the station where they originated.
- Bicycles are allowed on any street. However, on most major arterials with high traffic volume, bicycle activity is low and is typically limited to a small subset of experienced cyclists who are willing to ride on busy streets that lack bicycle lanes or other facilities. Cycling activity tends to be greater on streets that have bicycle facilities because they attract less experienced cyclists who feel more comfortable riding in dedicated bicycle lanes than in mixed-flow traffic. Therefore, overall bicycle activity, and the demand for bicycle parking at stations, will also be affected by bicycle network coverage.
- Since Metro's peak period restrictions on bringing bicycles onto trains have been formally removed, there will likely be a decrease in bicycle parking demand

Station Bicycle Parking Demand

The Wilshire/La Brea Station area is primarily residential in nature, which will lead to greater demand for bicycle parking, but lacks bicycle network connectivity, which will moderate demand for bicycle parking. In addition, forecast ridership for this station is at the low end of the range for LPA stations, so the overall need for bicycle parking may be lower compared with other stations. As the bicycle network is expanded, and bicycle activity increases, demand for bicycle parking may increase at the Wilshire/La Brea Station.

Bicycle Parking Supply

Two guiding policy documents have been used to assess bicycle parking supply: the Design Criteria, as well as a memorandum authored by the Metro Bicycle Program (Goldsmith, Jusay, May 27, 2011), which details the quantity and footprint that the Bicycle Program has requested be reserved for bicycle parking at each rail station. The Design Criteria requirements were used as the *floor* to identify the minimum bicycle parking that should be provided at each station, and the Bicycle Program request has been used to provide direction for the desired quantity of bicycle parking. The Design Criteria indicate that a minimum of eight bicycle lockers and six bicycle racks (that can accommodate two bicycles each) shall be provided at each rail station, for a minimum of 20 bicycle parking spaces. Based on the observed usage of bicycle parking at most Metro Red/Purple Line stations, meeting this minimum criterion will be sufficient as a starting point for this station given the level of daily boardings forecast.

To accommodate future growth in demand for bicycle parking, the Metro Bicycle Program has established the goal of providing bicycle parking spaces equivalent to the average daily bicycle mode share for Metro Rail station access, 1.3 percent of daily boardings (*Metro Bicycle-Rail Trip Analysis GHG Reduction Focused Study*, 2011). At the Wilshire/La Brea Station, based on the forecast ridership, this is equivalent to approximately 53 spaces.

Based on Metro Bicycle Program policy, approximately 75 percent of bicycle parking spaces will typically be reserved for long-term parking (appropriate for commuters who typically will park longer than two hours in a secured paid facility such as a bicycle room, cage, shelter, or locker) and 25 percent will typically be reserved for short term parking in free U-racks (which can accommodate two

bicycles on each rack). If the Metro Bicycle Program target of approximately 53 spaces is provided, 40 spaces can be for long-term parking and 14 spaces can be provided for short-term parking

Bicycle Parking Configuration and Footprint

Long-term bicycle parking can be provided in a number of configurations that vary by footprint size. Bicycle lockers have the largest footprint, requiring up to 42 square feet per bicycle parking space. A secured room can accommodate a bike in 5 to 8 square feet depending on the configuration of the racks (vertical, double stacked, etc.) that are provided, and any additional amenities such as changing rooms or restrooms that are included.

As a result, 40 long-term bicycle parking spaces for this station could be accommodated in a footprint as small as 200 to 300 square feet in a secured room, or as large as 1,800 square feet if lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders and any space constraints on the station site. If the station design ultimately requires a secured bicycle room rather than lockers, a modular structure, such as the Covina Bike station shown in Figure 2-4, will provide flexibility, allowing it to be relocated to a different location once a permanent secured bicycle room is provided.

Figure 2-4: Modular Bike Station



Source: Bikestation, Accessed June, 2011 from <http://home.bikestation.com/covina>

If a joint development project is built at the station, Metro could work with the developer to include a permanent bicycle parking room if feasible. The modular structure could then be relocated to another location as needed.

Bicycle Parking Site Location Guidelines

Design Criteria Section 6.12.5 provides guidance on configuration and location of bicycle parking. In addition, *Bicycle Parking Guidelines*, 2nd Edition (Association of Pedestrian and Bicycle Professionals [APBP], 2010) may be used for guidance on best practices for bicycle parking site planning. To the extent feasible, the following guidelines from APBP can be considered:

- Short-term parking should be placed no more than 50 feet from the station entrance in a highly visible active area. Weather protection should be provided if feasible.
- Long-term parking should be located as close as possible to the station entrance, with clear signage indicating its location. Long-term parking should have controlled access via keys, keycards, or codes. Weather protection should be provided.

Bicycle Share/Rental

No bicycle share/rental programs are recommended for this station area as project features because the demand from subway riders alone will not be sufficient enough to support such a service.

2.1.6.3 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate eastbound Metro Rapid Line 720 bus stop to a near-side stop (west of La Brea Avenue).
- Relocate northbound Metro Lines 212/312 bus stops to a far-side stop (north of Wilshire Boulevard).

The relocation of bus stops will require coordination and approval from Metro Bus Operations. While these bus stop relocations will enhance safety and convenience for riders transferring between bus and the subway, these relocations could come with the trade-off of slight increases in travel time for through riders. Because they have transit signal priority, Metro Rapid buses typically use far-side stops so they can pass through a signal before stopping. Relocating Rapid stops to the near-side, while favoring riders transferring to the subway, would increase travel time for through riders on Metro Rapid routes. These types of trade-offs will need to be evaluated and balanced in determining whether to relocate bus stops.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning Report* (Metro, 2011), one bus stopping bay in each direction should be adequate for La Brea Avenue, while two stopping bays in each direction should be adequate for Wilshire Boulevard.

The Design Criteria dictate that parallel to curb bus bays should be 80 feet long, so up to 160 feet will be needed to accommodate bus bays on both sides of Wilshire Boulevard and 80 feet on both sides of La Brea Avenue.

There is sufficient space to accommodate two bus stopping bays on the north side of Wilshire Boulevard at the existing bus stop. On the south side of Wilshire Boulevard, two on-street parking spaces may need to be removed to accommodate the bus stopping bays, but these parking spaces

could be replaced east of La Brea Avenue where this bus stop would be relocated from. The parking lot and the mid-block access to the parking south of Wilshire Boulevard will be removed for construction laydown and staging, which is beneficial to the accommodation of bus stopping bays in this location.

One bus stopping bay is already located on the west side of La Brea Avenue north of Wilshire Boulevard. On the east side of La Brea Avenue, two on-street parking spaces may need to be removed to accommodate the bus stopping bay, but these parking spaces could be replaced south of Wilshire Boulevard, the current location of this bus stop.

These bus stop locations will provide the most convenient and safest transfers between bus and subway. However, they will limit any potential on-street kiss-and-ride accessibility.

Shuttle Services

No new shuttle services are recommended as project features because a DASH shuttle already serves the station area.

2.1.6.4 Auto Access

No auto access enhancements are recommended as project features. Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, any auto access improvements are only included as optional access enhancements.

2.1.7 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access. These measures would primarily be implemented by third parties, including local jurisdictions, or in the context of car share services, private businesses, although some are best practices that Metro could implement directly if they are determined to be feasible. Metro should coordinate with local jurisdictions and private businesses to implement these or similar access improvements to the extent they are feasible.

2.1.7.1 Pedestrian Access

Sidewalks

To enhance pedestrian flow, widen the sidewalk to 15 feet on blocks immediately adjacent to the station entrance on La Brea Avenue and Wilshire Boulevard. Along the proposed construction laydown area to the southwest of the intersection, there is also the opportunity to provide 15-foot sidewalks after construction is complete.

Crossings

- As a best practice, provide directional curb ramps at all intersections affected by station box construction upon restoration of the street. Directional curb ramps are preferable to diagonal curb ramps because the ramp aligns directly with the pedestrian path of travel through the crosswalk, in contrast to the diagonal ramp, which points into the middle of the intersection. Thus, the directional curb ramp makes crossing easier and safer for the visually impaired, wheel chair bound persons, the elderly, and anyone with a stroller or cart. An example is shown in Figure 2-5. At a minimum, the installation of directional curb ramps at the intersection of La

Brea Avenue and Wilshire Boulevard is strongly recommended because it is the primary intersection to access the station entrance.

Figure 2-5: Directional Curb Ramps



Source: Accessed June, 2011 from <http://guide.saferoutesinfo.org/engineering/sidewalks.cfm>

- Install audible pedestrian signals at the intersection of La Brea Avenue and Wilshire Boulevard.
- Consider installing a Leading Pedestrian Interval (LPI) at the intersection of La Brea Avenue and Wilshire Boulevard. With this device, a signal modification is made such that the pedestrian walk phase begins three seconds in advance of turning vehicles with permitted left-turn or right-turn movements. The objective is to permit pedestrians to cross several seconds before potentially conflicting motor vehicles receive a green indication.
- In addition to those that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install curb extensions at intersections to reduce crossing distance. However, the installation of curb extensions would mean that the additional peak-period traffic lane on La Brea Avenue and Wilshire Boulevard would need to be phased out, which would affect peak-period traffic operations. Curb extensions could also conflict with the installation of on-street bicycle lanes and bus stops depending on their size and location.
- Extend medians to the unprotected side of the crosswalk at the intersections of Wilshire Boulevard with Cloverdale Avenue, Detroit Street, and Sycamore Avenue, such that pedestrians would have medians on each side of the crosswalk when they are in the center median, as shown in Figure 2-6. Crosswalks may need to be shifted slightly to accommodate these median extensions. Analyses of the turning radii of traffic on the cross streets would need to be conducted to properly size and place the median extensions to ensure they would not impede

traffic flow. Median refuge would not be feasible at other locations without the removal of traffic lanes.

Figure 2-6: Pedestrian Refuge Median



Source: Accessed June, 2011 from <http://www.ite.org/css/online/DWUT09.html>

- Mid-block crossings on La Brea Avenue would be beneficial due to the long distances between signals on La Brea Avenue. However, because the station entrance is located near the corner of an intersection, it is unlikely to create demand for midblock crossings, so is not recommended as a project feature but is encouraged as an optional enhancement.

2.1.7.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity. Given that two existing bicycle facilities and several planned facilities are located relatively close to the proposed station, there are greater opportunities to link to the bicycle network at the Wilshire/La Brea Station than at other stations along the LPA.

The following improvement options should be considered in coordination with the City of Los Angeles, which is the lead agency for the construction of any bicycle network improvements:

- Stripe bicycle lanes on Wilshire Boulevard between Mansfield Avenue and Cochran Avenue to enhance connectivity to the La Brea Station (if those streets are designated bicycle friendly).
- Based on the existing street cross section analysis, there appears to be insufficient roadway width to accommodate bicycle lanes on Wilshire Boulevard without removing traffic lanes, turn lanes,

or on-street parking. The additional east- and westbound peak-period travel lane is another impediment to installing bicycle lanes, and would need to be removed to accommodate a standard bicycle lane. This portion of Wilshire Boulevard has been designated as part of the Wilshire Bus Rapid Transit (BRT) project. The City of Los Angeles Bicycle Plan provides design criteria for a shared bus-only/bicycle lane. If there is sufficient roadway width to accommodate this type of facility, there may be the opportunity to implement bicycle lanes once the bus-only lane is implemented.

- Stripe bicycle lanes on La Brea Avenue between 4th Street and Wilshire Boulevard to link the station to the existing bicycle route on 4th Street.
- There appears to be insufficient roadway width to currently accommodate bicycle lanes on La Brea Avenue. To accommodate bicycle lanes, the continuous center turn lane would likely need to be removed and the roadway restriped. Peak-hour parking restrictions to accommodate an additional travel lane would no longer be possible with the implementation of a standard bicycle lane along this roadway segment. The level of bus activity at the stops on La Brea Avenue should be considered when designing the bicycle lane.
- Prioritize implementation of Cochran Avenue as a bicycle-friendly street, and include the installation of wayfinding signage and sharrows. Sharrows are "bicycle use" road markings that are installed where complete bike lanes cannot be installed
- Cochran Avenue is the only north-south street adjacent to the station that has a signalized crossing at Olympic Boulevard, making it the best alternative for north-south connectivity. Connections could be made to the existing bicycle route on Redondo Boulevard via Edgeware Place. Redondo Boulevard terminates at La Brea Avenue at an unsignalized intersection, so it is not a good candidate for direct linkage to the station via La Brea Avenue. Detroit Street is not a good candidate as a bicycle link because it runs one way northbound north of the station entrance.
- As an alternative to bicycle lanes on La Brea Avenue, designate Sycamore Avenue between 4th Street and Wilshire Boulevard as a bicycle-friendly street, and include the installation of wayfinding signage and shared lane markings (sharrows).
- A traffic signal would need to be installed at 6th Street and Sycamore Avenue to facilitate safe travel for bicyclists. This may be a preferred solution given the constraints and traffic volumes on La Brea Avenue.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as recommended project features.

Bicycle Share/Rental

Based on the forecast ridership at this station, the demand from subway riders alone will not be sufficient enough to support a bicycle sharing service, but such a service should be considered in the future if demand warrants. Depending on the ultimate footprint provided for bicycle parking in the station design, a bicycle sharing service could be implemented in the future.

2.1.7.3 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent to the potential station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops.

Bus Stop Relocation

No additional bus stop relocations are recommended beyond those recommended project features discussed above.

Shuttle Services

No additional shuttle services are recommended because a DASH service already operates in the station area and other connecting bus transit is sufficient to serve the need to link to most of the key destinations in the vicinity of the station.

2.1.7.4 Auto Access

Kiss-and-Ride

As an optional enhancement, a kiss-and-ride (KNR) area could be located in the existing LADOT parking lot immediately west of the proposed station entrance, accessed off Detroit Street, unless there is insufficient room to accommodate it as well as potential bicycle parking and other pedestrian-oriented amenities at the station. KNR spaces should be signed to indicate they are for active drop-off/pick-up only with a short time limit and should not be used for long-term parking.

If a joint development project is built at the station, KNR would not likely be accommodated. There is insufficient room to accommodate KNR on the Wilshire Boulevard and La Brea Avenue block faces closest to the station entrance due to the location of bus stops. Given the forecast ridership at the station, a KNR area designed to accommodate just a few vehicles at a time would likely be sufficient.

Taxi

As an optional enhancement, a taxi stand could be located adjacent to the designated KNR area in the LADOT parking lot. Given the forecast ridership at the station, a stand designed to accommodate a few taxis would likely be sufficient.

Shared Vehicles/Electric Vehicle Charging Stations

Due to relatively low forecast ridership at this station, subway riders are unlikely to be able to support a car sharing service on their own. Given that most subway riders will walk, bike, or use the bus for their regular last-mile solution, a shared vehicle service would need to be supported by residents and employees around the station to be viable. During construction, a car sharing service should be contacted to determine their interest in establishing service at project stations, and the number of cars they would be interested in locating at stations. If demand dictates, car share spaces could be accommodated in the LADOT parking lot adjacent to the station entrance.

2.2 Wilshire/La Brea Station South Entrance Option

2.2.1 Station Entrance Location

The south entrance option of the Wilshire/La Brea Station would locate the station entrance on the southwest corner of the Wilshire Boulevard and La Brea Avenue intersection, at the current location of the Bank of America building. The entrance would be oriented toward the north and would consist of two sets of stairs and escalators. Station elevators would be located to the east of the entrance. A knock out panel would be located near the northwest corner of the Wilshire Boulevard and La Brea Avenue intersection.

2.2.2 Pedestrian Access

2.2.2.1 Crossings

Table 2-2 summarizes the characteristics of the intersections within the station vicinity.

Table 2-2: Pedestrian Crossing Facilities Wilshire/La Brea Station South Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramp Type
Wilshire Boulevard/ Cloverdale Avenue	See discussion above for Wilshire/La Brea Station North Entrance Option			
Wilshire Boulevard/ Detroit Street	See discussion above for Wilshire/La Brea Station North Entrance Option			
Wilshire Boulevard/ La Brea Avenue	See discussion above for Wilshire/La Brea Station North Entrance Option			
Wilshire Boulevard/ Sycamore Avenue	See discussion above for Wilshire/La Brea Station North Entrance Option			
8th Street/ La Brea Avenue	Signalized	Countdown. Push button actuated across La Brea Avenue; pre-timed across 8th Street	White parallel, on all legs. 16 feet width on north and east legs, 18 feet width on south leg, 14 feet width on west leg. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing and clear zone only provided on the northwest corner curb ramp.

Source: Fehr and Peers, 2011

2.2.3 Bus Access

See discussion above for Wilshire/La Brea Station North Entrance Option. Additional stops for Metro Line 212 are located on the east side of La Brea Avenue, south of 8th Street (northbound buses) and on the west side of La Brea Avenue, north of 8th Street (southbound buses).

2.2.4 Proposed Project Features

In addition to the project features recommended above for the Wilshire/La Brea Station North Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

2.2.4.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate eastbound Metro Rapid Line 720 bus stop to a near-side stop (west of La Brea Avenue). The constraints associated with this relocation are discussed above for the Wilshire/La Brea Station (North Entrance Option).
- Relocate southbound Metro Lines 212/312 bus stops to a far-side stop (south of Wilshire Boulevard). This relocation would displace approximately five on-street parking spaces that would be along the perimeter of the station plaza. This parking could be replaced north of Wilshire Boulevard at the existing bus stop.
- As discussed in the previous section, the relocation of bus stops will require coordination and approval from Metro Bus Operations to evaluate the trade-offs and feasibility associated with the relocations.

2.2.5 Optional Access Enhancements

In addition to the optional access enhancements recommended above for the Wilshire/La Brea Station North Entrance Option, the following sections summarize access enhancements that are recommended to further improve station access.

2.2.5.1 Pedestrian Access

Sidewalks

- To enhance pedestrian flow, widen the sidewalk to 15 feet on blocks immediately adjacent to the station entrance.
- As an optional enhancement, Metro could coordinate with LADOT to widen the sidewalk on 8th Street west of La Brea Avenue to 12 feet. There appears to be sufficient roadway right-of-way to accommodate this widening.

3.0 WILSHIRE/FAIRFAX STATION

3.1 Wilshire/Fairfax Station Johnie's Entrance Option

3.1.1 Station Entrance Location

This entrance option would be located immediately west of Johnie's Coffee Shop on the northwest corner of Wilshire Boulevard and Fairfax Avenue. The station entrance would be situated on the current location of Hayworth Avenue, a public alley connecting Wilshire Boulevard and Orange Street. The entrance would be oriented toward the south and consist of two sets of stairs and escalators. Station elevators would be located to the east of the entrance. Construction of this entrance would require the temporary closure of the alley. Following construction, the alley would be permanently shifted to the west of the proposed station entrance. Knockout panels would be located on the east side of Fairfax Avenue—in front of LACMA West and near the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

3.1.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be along Wilshire Boulevard and Fairfax Avenue. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

3.1.2.1 Sidewalks

Sidewalks are continuous on both Wilshire Boulevard and Fairfax Avenue, with some interruptions to the pedestrian path of travel on Wilshire Boulevard due to driveways, but few on Fairfax Avenue. Within the station vicinity, sidewalks range from 9 feet to 11.5 feet on Wilshire Boulevard, meeting the minimum Metro design criteria, but not the preferred width of 12 feet. Sidewalk widths range from 5 feet to 11.5 feet on Fairfax Avenue, not meeting either the minimum or the preferred criteria in some locations. In part, this is due to the presence of a 5-foot landscaped greenway. Sidewalk damage was observed on the west side of Fairfax Avenue, north of Wilshire Boulevard, due to uplift from several Ficus trees, as shown in Figure 3-1.

3.1.2.2 Street Cross-Sections

Wilshire Boulevard has an approximately 80-foot curb-to-curb cross-section with two full-time travel lanes in each direction, one part-time parking lane/travel lane in each direction, left-turn pockets/center median islands east of Fairfax Avenue, and a continuous left turn lane west of Fairfax Avenue.

Fairfax Avenue has a curb-to-curb cross-section that ranges from 63 feet to 66 feet with two full-time travel lanes in each direction, two parking lanes in each direction with peak period parking restrictions, and striped medians and left turn pockets at most intersections within the station vicinity.

3.1.2.3 Crossings

Table 3-1 summarizes the characteristics of the intersections within the station vicinity.

Figure 3-1: Sidewalk Uplift Caused by Ficus Roots



Source: Fehr and Peers, 2011

The following assesses the crossings in the vicinity of the Wilshire/Fairfax Station according to Metro Rail Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with the primary crossings in the vicinity of the station area being signalized, including a mid-block crossing on Wilshire Boulevard, so this criterion is met.
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings are provided at all curb ramps. Truncated domes are installed at some, but not all corners, so this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Both Wilshire Boulevard and Fairfax Avenue are wider than four lanes. Medians are installed on Wilshire Boulevard east of Fairfax Avenue that provide partial refuge for pedestrian crossings at Fairfax Avenue and Ogden Drive. This criterion is not met at any other crossings.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Crosswalk are striped with standard, white parallel treatments, or are unmarked, so this criterion is not met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 14 feet wide, so this criterion is met.

Table 3-1: Pedestrian Crossing Facilities Wilshire/Fairfax Station Johnnie's Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/ Mid-block Crossing between Crescent Heights and Fairfax Ave	Pedestrian Actuated Signal.	Countdown. Push button actuated.	Ladder crosswalk, installed mid-block 16 feet width. No median. Advance stop bars installed.	Curb ramps installed at mid-block location. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.
Wilshire Boulevard/ Fairfax Avenue	Signalized.	Countdown. Pre-timed.	White parallel, installed on all legs, 14 feet width. Median on east leg of Wilshire Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all corners except northeast corner, which has directional ramps. Truncated domes installed only on northwest corner. Adequate landing/ clear zone provided on all ramps.
Wilshire Boulevard/ Orange Grove Avenue	None.	None.	No crossing of Wilshire Boulevard at this intersection. Crossing possible on south leg; no crosswalk treatment installed. Stop bar installed on south leg.	Diagonal curb ramps installed on southwest and southeast corners. Truncated domes not installed.
Wilshire Boulevard/ Ogden Drive	Signalized.	Countdown. Push button actuated across Wilshire Boulevard.	White parallel, installed west/ south legs, 14 feet width. Median on west leg of Wilshire Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all except northeast corner (no ramp installed). Truncated domes installed on northwest corner. Adequate landing/clear zone provided on all ramps.
Fairfax Avenue/ 6th Street	Signalized.	Countdown. Push button actuated across Fairfax Avenue.	White parallel, installed on all legs, 14 feet width. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes installed on northeast and southeast corners. Adequate landing/clear zone provided on all ramps.
Fairfax Avenue/ Orange Street	Stop controlled on eastbound approach.	None.	None. Advance stop bars installed.	Diagonal curb ramps installed on northwest and southwest corner. Truncated domes installed on southwest corner. Adequate landing/ clear zone provided on all ramps.

Source: Fehr and Peers, 2011

3.1.3 Bicycle Access

3.1.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities near the proposed Wilshire/Fairfax Station. The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- 6th Street (bicycle route)
- Wilshire Boulevard (bicycle lanes)
- San Vicente Boulevard (bicycle lanes)

3.1.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

The following bicycle facilities have been identified for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan:

- Fairfax Avenue (bicycle lanes)
- 8th Street (bicycle friendly street)

3.1.4 Bus Access

3.1.4.1 Location of Bus Stops

Bus stops for Metro Rapid Line 720 are located east of Fairfax Avenue on the north (westbound buses) and south (eastbound buses) side of Wilshire Boulevard.

Bus stops for Metro Line 20 are on the north side of Wilshire Boulevard, west of Fairfax Avenue (westbound buses), and adjacent to the eastbound Rapid stop east of Fairfax Avenue.

Bus stops for Metro Rapid Line 780 and Line 217 are located on the west side of Fairfax Avenue south of Wilshire Boulevard (southbound buses) and on the east side of Fairfax Avenue north of Wilshire Boulevard (northbound buses).

The bus stop for the DASH Fairfax Line (one-way clockwise operations), is located at the westbound Metro Rapid 720 bus stop.

3.1.4.2 Shuttle Services

The station area is currently served by a DASH line, and Metro lines on Fairfax Avenue and Wilshire Boulevard provide access to most primary destinations in the area of the station.

3.1.5 Auto Access

A parking lot is located on the site of the proposed station entrance. No taxi stands were observed near the proposed entrance.

3.1.6 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

3.1.6.1 Pedestrian Access

Sidewalks

- To the extent it is feasible, widen the sidewalk on blocks immediate adjacent to parcels Metro controls, including the station entrance, construction laydown area, and any sidewalks affected by station box construction, to ensure that there is a minimum 12-foot sidewalk.
- The 5-foot landscaped greenway on Fairfax Avenue within 500 feet of the station should be removed, and replaced with a continuous sidewalk.
- If the sidewalk damage observed on the west side of Fairfax Avenue, north of Wilshire Boulevard, has not been repaired at the time of project construction, the roots of the trees should be pruned,

and the sidewalk should be repaired. Any additional damage due to ficus tree roots within one block of the station entrance should be repaired.

Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install highly visible decorative or otherwise differentiated crosswalks at intersections that will be affected by station box construction. Maintain the existing width of all crosswalks at a minimum. Install advance stop bars at these intersections.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.
- Install a zebra crosswalk, or other high visibility crosswalk treatment appropriate for unsignalized intersections as illustrated in Figure 3-2, on the west leg of the intersection of Fairfax Avenue and Orange Street and on the south leg of the intersection of Orange Grove Avenue and Wilshire Boulevard.

Figure 3-2: Zebra Crosswalk



Source: Fehr and Peers, 2011

3.1.6.2 Bicycle Access

Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore, no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

Station Bicycle Parking Demand

The Wilshire/Fairfax Station area is a mixed residential and employment destination, which could lead to greater demand for bicycle parking, but lacks bicycle network connectivity, which would moderate demand for bicycle parking.

Station Bicycle Parking Supply

Based on the forecast ridership, and observed usage of bicycle parking at most Metro Red/Purple Line stations, the Metro Rail Design Criteria state that a minimum of 20 spaces plus up to 12 additional spaces should be provided, and space should be reserved to increase bicycle parking to meet future demand.

Provision of 80 spaces would meet the Metro Bicycle Program goal of providing bicycle parking equivalent to 1.3 percent of daily station boardings. If this target is provided, 60 spaces (75 percent) can be for long term parking and 20 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 60 spaces of long-term bicycle parking could be accommodated in a 300 to 480-square foot footprint in a secured room; the same number of spaces could be provided by up to a 2,500-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site.

Bicycle Parking Site Location

Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. Parking should be located as close as possible to the station entrance, in the existing surface parking area around Johnnie's.

Bicycle Share/Rental

No bicycle share/rental programs are recommended as project features, because the demand from subway riders alone will not be sufficient enough to support such a service.

3.1.6.3 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate eastbound and westbound Metro Rapid Line 720 and Metro Line 20 bus stops west of Fairfax Avenue.
- Relocate the southbound Metro Rapid Line 780 and Metro 217 bus stops to a near side stop north of Wilshire Boulevard.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, one to two bus stopping bay in each direction should be adequate for Fairfax Avenue, while two stopping bays in each direction should be adequate for Wilshire Boulevard, requiring 160 feet to accommodate buses at stops on Fairfax Avenue and Wilshire Boulevard.

Based on the proposed bus stop relocations there would be sufficient room to accommodate northbound buses on Fairfax Avenue at the existing bus stop. There would be sufficient room on southbound Fairfax Avenue to accommodate southbound buses along the curb. Currently, there is a southbound right turn lane provided in this location. Traffic operations for the right turn lane would be affected by a bus stop in this location. The right turn lane could either be removed or the lane could be signed to allow transit buses to travel south rather than being forced into a right turn. Locating the bus stop for eastbound Wilshire buses west of Fairfax Avenue could be accommodated, but two parking spaces would need to be removed. These spaces could be relocated east of Fairfax Avenue so there is no net loss of parking. The parking lot for Johnie's, as well as the driveway just west of Johnie's, will be removed for construction laydown and staging, which is beneficial to the accommodation of bus stopping bays in this location.

These bus stop locations would provide the most convenient and safest transfers between bus and subway. However, they would limit on-street kiss-and-ride accessibility.

Shuttle Services

No new shuttle services are recommended as project features because a DASH service already operates in the station area, and other connecting bus transit is sufficient to serve the need to link to most of the key destinations in the vicinity of the station. However, private shuttles are recommended below as optional access enhancements.

3.1.6.4 Auto Access

No auto access enhancements are recommended as project features. Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, any auto access improvements are only included as optional access enhancements.

3.1.7 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

3.1.7.1 Pedestrian Access

Sidewalks

- To enhance pedestrian flow, widen the sidewalk to 15 feet on blocks immediately adjacent to the station entrance on Fairfax Avenue and Wilshire Boulevard.
- Coordinate with LADOT to widen the sidewalks on Fairfax Avenue and Wilshire Boulevard within 500 feet of the station entrance to 12 feet minimum to the extent feasible.

Crossings

- As a best practice, provide directional curb ramps at all intersections affected by station box construction, upon restoration of the street. At a minimum, the installation of directional curb ramps at the intersection of Fairfax Avenue and Wilshire Boulevard is strongly recommended because it is the primary intersection to access the station entrance.
- Install audible pedestrian signals at the intersection of Fairfax Avenue and Wilshire Boulevard.
- Consider installing a Leading Pedestrian Interval (LPI) at the intersection of Fairfax Avenue and Wilshire Boulevard.
- In addition to those that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well. If upgrading the intersection of Fairfax Avenue and 6th Street, install a crosswalk on the southern leg of the intersection.
- Install curb extensions at intersections to reduce crossing distance. However, the installation of curb extensions would mean that the additional peak period traffic lane (due to parking restrictions) on Fairfax Avenue and Wilshire Boulevard would need to be phased out. This change would affect peak period traffic operations. Curb extensions could also conflict with the installation of on-street bicycle lanes, and bus stops depending on their size and location.
- Extend medians to the unprotected side of the crosswalk at the intersections of Wilshire Boulevard/Fairfax Avenue, and Wilshire Boulevard/Ogden Drive such that pedestrians will have medians on either side of the crosswalk when they are in the center median. Crosswalks may need to be shifted slightly to accommodate these median extensions. Add median refuge to the midblock crosswalk on Wilshire Boulevard between Crescent Heights Blvd and Fairfax Ave. This median would likely require that driveways immediately adjacent to the median be converted to right-turn-in/right-turn-out operations.
- Due to the limitations of right-of-way, pedestrian refuge cannot be accommodated at other intersections without removing a travel lane or a turn lane, which would benefit pedestrian safety, but negatively affect intersection traffic operations.

3.1.7.2 Bicycle Access

Bicycle Network

There are no existing bicycle facilities near the proposed station. Metro should coordinate with the City of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the City of Los Angeles, which would be the lead agency for the construction of any bicycle network improvements:

- Prioritize striping of bicycle lanes on Wilshire Boulevard. See discussion of the constraints of installing bicycle lanes on Wilshire Boulevard under the Wilshire/La Brea Station North Entrance Option.
- Prioritize striping of bicycle lanes on Fairfax Avenue, at a minimum between 6th Street and San Vicente Boulevard.
- There appears to be insufficient roadway width to accommodate bicycle lanes on Fairfax Avenue without removing traffic lanes, turn lanes, or on-street parking, though Fairfax has been designated for bicycle lanes in the 2010 Bicycle Plan. The level of bus activity at stops on Fairfax Avenue should be considered when designing the bicycle lane, as it could conflict with bicycle access.
- As an alternative to striping bicycle lanes on Fairfax Avenue, Hayworth Avenue, immediately to the west of Fairfax Avenue could be used to provide a link between 6th Street and the station entrance. The median island on 6th Street at Hayworth Avenue would likely need to be removed to accommodate this option.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as recommended project features.

Bicycle Share/Rental

The demand from subway riders alone will not be sufficient enough to support a bicycle sharing service. See discussion of considerations for a bicycle sharing service above for the Wilshire/La Brea Station North Entrance Option.

3.1.7.3 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent the station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops.

Bus Stop Relocation

No additional bus stop relocations are proposed beyond those identified above as project features.

Shuttle Services

Metro should work with the owners/operators of the Farmer's Market/Grove shopping center to potentially develop a privately funded shuttle service from the station to these destinations.

3.1.7.4 Auto Access

Kiss-and-Ride

As an optional enhancement, a KNR area could be located in the existing Johnie's parking lot unless there is insufficient room to accommodate the KNR area in addition to bicycle parking and other pedestrian-oriented amenities. See the KNR discussion above for the Wilshire/La Brea Station North Entrance option for recommendations on sizing and parking restrictions.

Taxi

Taxis may be used given major destinations in the area of the Wilshire/Fairfax station. A small taxi stand could be located in the parking lot of Johnie's adjacent to the station entrance to accommodate this modest demand.

Shared Vehicles/Electric Vehicle Charging Stations

As with the Wilshire/La Brea Station, subway riders are unlikely to be able to support a car sharing service on their own, so it is not recommended, unless a car sharing service expresses interest in placing cars at the station. If demand dictates, car share spaces could be accommodated in the Johnie's parking lot adjacent to the station entrance.

3.2 Wilshire/Fairfax Station LACMA West Entrance Option

3.2.1 Station Entrance Location

This station entrance option would be retrofitted into LACMA West (the former May Company Building) on the northeast corner of Wilshire Boulevard and Fairfax Avenue. The entrance would be located within the lobby of the LACMA West building with two sets of stairs and escalators leading to the basement level, where there would be a connection into the station box. Station elevators would be located within the building lobby, connecting to the basement level. Knockout panels would be located on the northwest corner of Wilshire Boulevard and Fairfax Avenue and the southeast corner of Wilshire Boulevard and Orange Grove Avenue.

3.2.2 Pedestrian Access

3.2.2.1 Crossings

See discussion above for Wilshire/Fairfax Station with the Johnie's Entrance Option. The mid-block crossing of Wilshire Boulevard west of Fairfax Avenue would be beyond 500 feet of the entrance for this entrance option.

3.2.3 Proposed Project Features

In addition to the project features recommended above for the Wilshire/Fairfax Station Johnie's Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

3.2.3.1 Bicycle Parking

Bicycle Parking Site Location

The location for both short term and long term bicycle parking for this entrance option would require negotiations with LACMA, as the entrance would be located within the lobby of LACMA West. If possible, a location for long term parking could be provided on the LACMA site. If it is not possible to provide long term parking near the LACMA West building, locating parking closer to 6th Street may be preferable, as 6th Street is a more hospitable street for cyclists than Wilshire Boulevard, and is designated as a future bicycle route in the 2010 Bicycle Plan. As an alternative, a bicycle parking room could be designated within the lobby level of LACMA West. Short term bicycle parking should be located immediately outside the entrance to LACMA West if feasible, and given its museum location, should be designed to be visually striking.

3.2.4 Bus Access

3.2.4.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following are recommended:

- Relocate the southbound Metro Rapid Line 780 and Metro 217 bus stops to the north of Wilshire Boulevard.
- As discussed in the previous section, the relocation of bus stops will require coordination and approval from Metro Bus Operations to evaluate the trade-offs and feasibility associated with the relocations. There would be sufficient room on southbound Fairfax Avenue to accommodate southbound buses along the curb, but the southbound right turn lane would likely need to be shortened or removed, which could negatively affect traffic operations at this intersection.

3.2.5 Optional Access Enhancements

In addition to the optional access enhancements recommended above for the Wilshire/Fairfax Station Johnnie's Entrance Option, the following sections summarize access enhancements that are recommended to further improve station access.

3.2.5.1 Bicycle Access

See discussion above for Wilshire/Fairfax Station Johnnie's Entrance Option. The use of Hayworth Avenue as an alternative to Fairfax Avenue would not be appropriate for this entrance option. Metro should coordinate with LACMA to determine the feasibility of a short bicycle route through LACMA property that would link the station with the proposed bicycle route on 6th Street.

3.3 Wilshire/Fairfax Station South of Wilshire Boulevard Entrance Option

3.3.1 Station Entrance Location

This station entrance option would be located on the southeast corner of Wilshire Boulevard and Orange Grove Avenue. This entrance would consist of two sets of stairs and escalators and an elevator bank adjacent to the west of the entrance. Knockout panels would be located near the northwest corner of Wilshire Boulevard and Fairfax Avenue, and on the north side of the station box in front of LACMA West.

3.3.2 Pedestrian Access

3.3.2.1 Crossings

See discussion above for Wilshire/Fairfax Station Johnnie’s Entrance Option. The intersection of Fairfax Avenue and 6th Street and the mid-block crossing of Wilshire Boulevard west of Fairfax Avenue would be beyond 500 feet of this entrance option. All of the criteria for this entrance option are consistent with the Wilshire/Fairfax Station Johnnie’s Entrance Option discussed above, with the exception of the following:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct. However, the crossing of Wilshire Boulevard at South Orange Grove Avenue is unmarked and unsignalized, so this criterion is not met. Therefore, this entrance option is the least preferable of the three Wilshire/Fairfax Station entrance options.

3.3.3 Proposed Project Features

In addition to the project features recommended above for the Wilshire/Fairfax Station Johnnie’s Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

3.3.3.1 Pedestrian Access

Crossings

See discussion above for Wilshire/Fairfax Station Johnnie’s Entrance Option. In addition, at Orange Grove Avenue, no pedestrian crossing signs should be posted, and pedestrian barriers, such as those shown in Figure 3-3 should be provided to discourage crossing Wilshire Boulevard at this location.

Figure 3-3: Pedestrian No Crossing Barrier



Source: Fehr and Peers, 2011

3.3.3.2 Bicycle Access

Bicycle Parking

See above discussion of recommended bicycle parking supply and necessary footprint for the Wilshire/Fairfax Station Johnnie's Entrance Option. Space for short term and long term bicycle parking should be accommodated in the station plaza.

3.3.3.3 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following are recommended:

- Relocate the northbound Metro Rapid Line 780 and Metro 217 bus stops to near side stops at Wilshire Boulevard.
- As discussed in the previous section, the relocation of bus stops will require coordination and approval from Metro Bus Operations to evaluate the trade-offs and feasibility associated with the relocations. There would be sufficient room on northbound Fairfax Avenue to accommodate buses along the existing red curb, in front of the Petersen Auto Museum

3.3.4 Optional Access Enhancements

The optional access enhancements recommended above for the Wilshire/Fairfax Station Johnnie's Entrance Option, are applicable to this entrance option.

4.0 WILSHIRE/LA CIENEGA STATION

4.1 Station Entrance Location

The entrance for the Wilshire/La Cienega Station would be located on the northeast corner of the Wilshire Boulevard and La Cienega Boulevard intersection at the current site of the Citibank building. The entrance would be oriented to the north and would consist of two sets of stairs and escalators. Elevators would be located along Wilshire Boulevard to the east of the station entrance. A knockout panel would be located near the northwest corner of Wilshire Boulevard and Gale Drive.

4.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be along Wilshire and La Cienega Boulevards.

4.2.1 Sidewalks

Sidewalks are continuous on both Wilshire and La Cienega Boulevards, with few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks are generally 15 feet, exceeding the Design Criteria. However, a stretch of the sidewalk on the east side of La Cienega Boulevard is 5 feet wide due to the presence of a landscaped greenway.

4.2.2 Street Cross-Sections

Wilshire Boulevard has an approximately 80-foot curb-to-curb cross-section with two full-time travel lanes in each direction, one part-time parking lane/travel lane in each direction, and left-turn pockets at each intersection.

La Cienega Boulevard has a curb-to-curb cross-section of approximately 76 feet, with two full-time travel lanes in each direction, one part-time parking lane/travel lane in each direction, and left-turn pockets at each intersection, and a shared continuous left turn lane in the mid-block median.

4.2.3 Crossings

Table 4-1 summarizes the characteristics of the intersections within the station vicinity.

The following assesses the crossings in the vicinity of the Wilshire/La Cienega Station according to Metro Rail Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with the primary crossing in the vicinity of the station area being signalized, so this criterion is met.
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings are provided at all curb ramps. Truncated domes are not installed at any intersections, so this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Both Wilshire Boulevard and La Cienega Boulevard are wider than four lanes. Medians are not installed on Wilshire Boulevard or La Cienega Boulevard, so this criterion is not met.

Table 4-1: Pedestrian Crossing Facilities Wilshire/La Cienega Station

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/ Le Doux Road	Stop controlled on northbound and southbound approaches	None.	No crosswalk installed. Stop bars installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.
Wilshire Boulevard/ La Cienega Boulevard	Signalized	Countdown. Push button actuated across all legs	White parallel, installed on all legs, 12 feet width. No medians. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.
Wilshire Boulevard/ Hamilton Drive	Stop controlled on northbound and southbound approaches	None.	No crosswalk installed. Stop bars installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.
Wilshire Boulevard/ Gale Drive	Signalized	Countdown. Push button actuated across Wilshire Boulevard	White parallel, installed on all legs, 14 feet width. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.

Source: Fehr and Peers, 2011

- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Crosswalk are striped with standard, white parallel treatments, so this criterion is not met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 12 feet wide, so this criterion is met.

4.3 Bicycle Access

4.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities near the proposed Wilshire/La Cienega Station in either the Cities of Los Angeles or Beverly Hills.

The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- Wilshire Boulevard (bicycle lanes)
- San Vicente Boulevard (bicycle lanes)

The City of Beverly Hills adopted a Bicycle Master Plan as part of its Open Space Element on February 1, 1977. Upon adoption of the General Plan on January 12, 2010, this document was

incorporated as an appendix to the General Plan. The General Plan includes the goal of updating and expanding the 1977 document to provide a city-wide bicycle master plan (City of Beverly Hills, 2008). No bicycle facilities included in the 1977 document were implemented. It is not known at this time, what corridors would be considered for bicycle facilities within the City of Beverly Hills.

4.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

No additional bicycle facilities have been identified for longer term implementation beyond the bicycle lanes on Wilshire and San Vicente Boulevards identified above.

4.4 Bus Access

4.4.1 Location of Bus Stops

Bus stops for Metro Rapid Line 720 and Metro Line 20 are located on the north side of Wilshire Boulevard, west of La Cienega Boulevard (westbound buses) and on the south side of Wilshire Boulevard east of La Cienega Boulevard (eastbound buses).

Bus stops for Metro Rapid Line 705 are on the west side of La Cienega Boulevard, just south of Wilshire Boulevard (southbound buses) and on the east side of La Cienega Boulevard, north of Wilshire Boulevard (northbound buses).

Bus stops for Metro Line 105 are on the west side of La Cienega Boulevard, north of Wilshire Boulevard (southbound buses) and on the east side of La Cienega Boulevard, south of Wilshire Boulevard (northbound buses).

4.4.2 Shuttle Services

There are no shuttle services operating in the station area. The station area is currently served by Metro lines on La Cienega and Wilshire Boulevards that provide access to most primary destinations in the area of the station.

4.5 Auto Access

A small parking lot is located on the site of the proposed entrance. A taxi stand is located approximately 800 feet north of the proposed entrance in front of Lawry's The Prime Rib Restaurant.

4.6 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

4.6.1 Pedestrian Access

4.6.1.1 Sidewalks

- To the extent it is feasible, widen the sidewalk on blocks immediate adjacent to parcels controlled by Metro, including the station entrance, construction laydown area, and any sidewalks affected by station box construction, to ensure that there is a minimum 12-foot wide sidewalk.
- Remove the 5-foot landscaped greenway on La Cienega Boulevard within 500 feet of the station, and replace it with a continuous sidewalk.

4.6.1.2 Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install highly visible decorative or otherwise differentiated crosswalks at intersections that will be affected by station box construction. Maintain the existing width of all crosswalks at a minimum. Install advance stop bars at these intersections.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.
- Install a zebra crosswalk, or other high visibility crosswalk treatment appropriate for unsignalized intersections, on the north and south leg of the intersection of Hamilton Drive and Wilshire Boulevard.

4.6.2 Bicycle Access

4.6.2.1 Bicycle Network

Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

4.6.2.2 Bicycle Parking

Station Bicycle Parking Demand

The Wilshire/La Cienega Station is a mixed area with concentrations of both higher income residential and employment, including professional jobs, as well as a significant number of service jobs located on Restaurant Row. The higher income demographics and the predominance of employment around the station area would likely lead to lower bicycle parking demand. Service employees in the station area would likely park their bicycles at their originating stations or closer to their work place if their destination is too far to walk from the subway entrance. The station area lacks bicycle network connectivity, which would also moderate demand for bicycle parking. As the bicycle network is expanded, and bicycle activity increases, demand for bicycle parking may increase at the Wilshire/La Cienega Station.

Station Bicycle Parking Supply

Based on the forecast ridership, the Metro Rail Design Criteria minimum of 20 spaces should be sufficient, given the demographics and lack of bicycle network connectivity in the station vicinity, but space should be provided to accommodate expanded bicycle parking in the future as demand warrants.

Provision of 86 spaces would meet the Metro Bicycle Program goal of providing bicycle parking which is equivalent to 1.3 percent of daily station boardings. If this target is provided, around 64 spaces (75 percent) can be for long term parking and 22 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 64 spaces of long-term bicycle parking could be accommodated in a 320 to 512-square-foot footprint in a secured room or up to a 2,700-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site.

Bicycle Parking Site Location

Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. Bicycle parking should be located as close as possible to the station entrance, in the existing surface parking area behind the Citibank building. This building will be removed as part of the La Cienega Station construction.

4.6.2.3 Bicycle Share/Rental

No bicycle share/rental services are recommended as project features.

4.6.3 Bus Access

4.6.3.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate westbound Metro Rapid Line 720 and Metro Line 20 bus stops to near side stops east of La Cienega Boulevard.
- Relocate the southbound Metro Rapid Line 705 and the northbound Metro Line 105 bus stops to the north of Wilshire Boulevard.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops.

4.6.3.2 Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, one bus stopping bay in each direction should be adequate for La Cienega Boulevard, requiring 80 feet of curb space to accommodate bus stops, while two stopping bays in each direction should be adequate for Wilshire Boulevard, requiring 160 feet of curb space to accommodate buses at stops.

Based on the proposed bus stop relocations, there would be sufficient room to accommodate northbound and southbound buses on La Cienega Boulevard, because they would be at existing bus stops.

There would be sufficient room on Wilshire Boulevard to accommodate the relocation of westbound buses. Since the entire north curb face of the block between La Cienega and Hamilton Drive is already marked as a red curb, no parking spaces would need to be removed.

These bus stop locations would provide the most convenient and safest transfers between bus and subway. However, they would limit on-street kiss-and-ride accessibility.

4.6.3.3 Shuttle Services

No new shuttle services are recommended as project features because connecting bus transit is sufficient to serve the need to link to most of the key destinations in the vicinity of the station. However, a privately funded shuttle is listed below under optional access enhancements.

4.6.4 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, any auto access improvements are only included as optional access enhancements.

4.7 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

4.7.1 Pedestrian Access

4.7.1.1 Sidewalks

To enhance pedestrian flow, widen the sidewalk to 15 feet on the block of Wilshire and La Cienega Boulevards that are immediately adjacent to the station entrance.

4.7.1.2 Crossings

- As a best practice, provide directional curb ramps at all intersections affected by station box construction, upon restoration of the street. At a minimum, the installation of directional curb ramps at the intersection of La Cienega and Wilshire Boulevards is strongly recommended because it is the primary intersection to access the station entrance.
- Install audible pedestrian signals at the intersection of La Cienega and Wilshire Boulevards.
- Consider installing a Leading Pedestrian Interval at the intersection of La Cienega and Wilshire Boulevards.
- In addition to those affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.
- Install curb extensions at intersections to reduce crossing distance. However, the installation of curb extensions would mean that the additional peak period traffic lane (due to parking restrictions) on La Cienega and Wilshire Boulevards would need to be phased out, which would affect peak period traffic operations. Curb extensions could also conflict with the installation of on-street bicycle lanes, and bus stops depending on their size and location.
- Due to the limitations of right-of-way, pedestrian refuge cannot be accommodated on Wilshire or La Cienega Boulevards without removing a travel lane or a left turn lane, which would negatively impact traffic operations.
- There is a long distance between signalized crossings on Wilshire Boulevard west of La Cienega Boulevard. From a pedestrian safety standpoint, it would be beneficial to provide an additional signalized crossing, possibly at Stanley Drive.

4.7.2 Bicycle Access

4.7.2.1 Bicycle Network

There are no existing bicycle facilities near the proposed station. Metro should coordinate with the Cities of Los Angeles and Beverly Hills to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the Cities of Beverly Hills and Los Angeles, which would be the lead agencies for the construction of any bicycle network improvements:

- Prioritize striping of bicycle lanes on Wilshire Boulevard, especially to link with proposed bicycle lanes on San Vicente Boulevard.
- As identified above, there may be insufficient roadway width to accommodate bicycle lanes on Wilshire Boulevard without removing traffic lanes, turn lanes, or on-street parking. The trade-offs and constraints of bicycle lanes on Wilshire Boulevard have been discussed above. A bus only lane on Wilshire Boulevard through the City of Beverly Hills is not planned.
- Prioritize striping of bicycle lanes on San Vicente Boulevard
- There may be insufficient roadway width to accommodate bicycle lanes on San Vicente Boulevard Avenue without narrowing the landscaped median, locating the bike lanes within the median, or removing traffic lanes, turn lanes, or on-street parking. Removing traffic lanes would affect traffic operations along San Vicente Boulevard.
- Coordinate with the City of Beverly Hills to designate a north-south and an east-west bicycle route to link with the station
- Because La Cienega Boulevard has peak period parking restrictions and high traffic volumes, it is not an ideal roadway for cyclists. As an alternative, a bicycle route could be designated on a north-south street such as Carson Road, to provide bicycle connectivity. Charleville Boulevard could be designated as an east-west bicycle route. Such routes would require signalization where the route crosses major streets. However, such routes should only be planned as part of a comprehensive bicycle network for the City of Beverly Hills. Metro's involvement would be dependent upon the City, as lead agency, to prepare the plan.

4.7.2.2 Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as recommended project features.

4.7.2.3 Bicycle Share/Rental

The demand from subway riders alone will not be sufficient enough to support a bicycle sharing service. See discussion of considerations for a bicycle sharing service above for the Wilshire/La Brea Station North Entrance Option.

4.7.3 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent the station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops.

4.7.3.1 Bus Stop Relocation

No additional bus stop relocations are proposed beyond those identified above as project features.

4.7.3.2 Shuttle Services

Metro should coordinate with the Beverly Center and Cedars-Sinai Medical Center to consider implementing a privately funded shuttle from the station to these destinations.

4.7.4 Auto Access

4.7.4.1 Kiss-and-Ride

As with prior stations, KNR demand will be low. There would not be room to accommodate KNR on the block faces immediately adjacent to the entrance if bus stops are relocated as recommended above. There is insufficient area in the footprint of the station to accommodate convenient KNR access.

4.7.4.2 Taxi

As with other stations, taxis could be used by subway riders given major destinations in the Wilshire/La Cienega station area. There is currently a small taxi stand located in front of Lawry's the Prime Rib restaurant. This stand could serve station riders, but it is located 800 feet north of the entrance, so would be more convenient if it were relocated or consolidated closer to the station. Alternatively, two parking spaces in the existing Citibank lot could be maintained to accommodate a taxi stand, before a joint development project is constructed. However, taxi operators may prefer to wait on the street in locations of higher visibility, so the priority for a small taxi stand at this location is low.

4.7.4.3 Shared Vehicles/Electric Vehicle Charging Stations

As with prior stations, subway riders are unlikely to be able to support a car sharing service on their own, so it is not recommended at this station unless a car sharing service expresses interest in placing cars here. If demand dictates, car share spaces could be accommodated in the existing Citibank parking lot.

5.0 WILSHIRE/RODEO STATION

Three entrance options are being considered for the Wilshire/Rodeo Station. These options include one with an entrance on the southwest corner of the intersection of Reeves Drive and Wilshire Boulevard, one on the northwest corner of the intersection of Beverly Drive and Wilshire Boulevard, and one on the southeast corner of the intersection of El Camino Drive and Wilshire Boulevard.

5.1 Wilshire/Rodeo Station Ace Gallery Entrance Option

5.1.1 Station Entrance Location

This entrance option would be located on the southwest corner of Wilshire Boulevard and Reeves Drive at the current site of the Ace Gallery. The entrance would be oriented to the north and would consist of two sets of stairs and escalators. The station elevators would be located to the north of the entrance. Knockout panels would be located near the northwest corner of the Wilshire Boulevard and Beverly Drive intersection.

5.1.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be along Wilshire Boulevard, Rodeo Drive, Beverly Drive, and Canon Drive. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

5.1.2.1 Sidewalks

Sidewalks are relatively continuous on Wilshire Boulevard, Rodeo Drive, Beverly Drive and Canon Drive, with few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks are generally a minimum of 12 feet, meeting the Design Criteria.

5.1.2.2 Street Cross-Sections

Wilshire Boulevard has an approximately 70-foot curb-to-curb cross-section with two full-time travel lanes in each direction, one part-time travel lane in each direction, left-turn pockets at each intersection, and landscaped medians in locations without turn pockets.

Beverly Drive has a curb-to-curb cross-section of approximately 60 feet, with two travel lanes in each direction with curbside parking. Just south of Wilshire Boulevard, Beverly Drive widens to approximately 75 feet to accommodate diagonal parking.

Canon Drive has a 55-foot curb-to-curb cross-section north of Wilshire Boulevard, with two travel lanes and curbside parking. South of Wilshire, Canon Drive has a 30-foot curb-to-curb cross-section with one travel lane in each direction, and curbside parking permitted on the east side of the street.

Rodeo Drive has a 64-foot cross-section at the crossing north of Wilshire Boulevard, with two travel lanes in each direction. Parking is prohibited on both sides of the street. North of Wilshire Boulevard, southbound Rodeo Drive flares out to accommodate one left turn lane, one through lane, and one right turn lane. South of Wilshire, Rodeo Drive has a 45-foot curb-to-curb cross section with one southbound travel lane. A single northbound travel lane splits into a left turn lane and a right/through lane at Wilshire Boulevard. Parking is prohibited on both sides of the street.

5.1.2.3 Crossings

Table 5-1 summarizes the characteristics of the intersections within the station vicinity.

Table 5-1: Pedestrian Crossing Facilities Wilshire/Rodeo Station Ace Gallery Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/ Beverly Drive	Signalized	Countdown. Push button actuated across all legs	White parallel, installed on all legs, 12 feet width. No medians. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes installed on northwest and northeast corners. Inadequate clear zones provided on all ramps.
Wilshire Boulevard/ Reeves Drive	Stop controlled on northbound approach	None.	No crosswalk installed. Stop bars installed.	Directional curb ramps installed on southwest and southeast corners oriented towards crossing Reeves Drive. Truncated domes not installed. Adequate landing/clear zone provided on all ramps.
Wilshire Boulevard/ Canon Drive (West)	Signalized	Countdown. Push button actuated across all legs	White parallel, installed on north and west legs, 12 feet width across Wilshire Boulevard and 14 feet width across Canon Drive (West). Advance stop bars not installed.	Diagonal curb ramps installed on northwest and northeast corners, directional on southwest corner. Truncated domes installed on northwest and northeast corners. Inadequate clear zone found on northwest ramp.
Wilshire Boulevard/ Canon Drive (East)	Signalized	Countdown. Push button actuated across all legs	White parallel, installed on south and west legs, 12 feet width. Faded striping on south leg. Advanced stop bar installed on north approach.	Diagonal curb ramps installed on southwest and southeast corners, directional on northwest corner. Truncated domes installed on southeast corner. Inadequate clear zones found on southwest and southeast ramps.

Source: Fehr and Peers, 2011

The following assesses the crossings in the vicinity of the Wilshire/Rodeo Station according to Metro Rail Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with the primary crossing in the vicinity of the station area being signalized, so this criterion is met, though it would be preferable if the station entrance were located on the corner of a signalized intersection, rather than requiring riders to cross one small stop controlled street
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings were not found at all ramps, and truncated domes are not installed at all ramps, therefore this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Wilshire Boulevard is wider than four lanes. Medians are only installed on Wilshire Boulevard at Canon Drive (East), not at any other crossings, so this criterion is not met.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Crosswalk are striped with standard, white parallel treatments, so this criterion is not met.

- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 12 feet wide, so this criterion is met.

5.1.3 Bicycle Access

5.1.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing or known proposed bicycle facilities near the proposed Wilshire/Rodeo Station.

5.1.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

There are no known proposed bicycle facilities near the proposed Wilshire/Rodeo Station. The General Plan for the City of Beverly Hills includes the goal of updating and expanding the 1977 document to provide a city-wide bicycle master plan. It is not known at this time, what corridors would be considered for bicycle facilities within the City of Beverly Hills.

5.1.4 Bus Access

5.1.4.1 Location of Bus Stops

Bus stops for Metro Rapid Line 720 are located on the north side of Wilshire Boulevard west of Beverly Drive (westbound buses), and on the south side of Wilshire Boulevard east of Beverly Drive (eastbound buses).

Bus stops for Metro Line 20 are located on the north side of Wilshire Boulevard, east of Beverly Drive (westbound buses), and on the south side of Wilshire Boulevard west of Beverly Drive (eastbound buses).

Bus stops for Metro Line 14 are on the west side of Canon Drive, north of Wilshire Boulevard (southbound buses), on the west side of Beverly Drive, south of Wilshire Boulevard (southbound buses) and on the east side of Beverly Drive, south of Wilshire Boulevard (northbound buses).

The bus stop for the Antelope Valley Transportation Authority Line 786 (northbound buses) is on the north side of Wilshire Boulevard, east of Beverly Drive, shared with the Metro Line 20 stop.

5.1.4.2 Shuttle Services

The station area is currently served by Metro lines on Wilshire Boulevard and Beverly Drive. No shuttle services are available.

5.1.5 Auto Access

No existing parking lots are located on the parcel proposed for the station entrance. Taxis can be found at nearby hotels.

5.1.6 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

5.1.6.1 Pedestrian Access

Sidewalks

To the extent it is feasible, widen the sidewalk on blocks immediate adjacent to parcels Metro controls, including the station entrance, construction laydown area, and any sidewalks affected by station box construction, to ensure that there is a minimum 12 feet wide sidewalk.

Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install highly visible decorative or otherwise differentiated crosswalks at intersections that will be affected by station box construction. Replace with 14 feet wide crosswalks at a minimum. Install advance stop bars at these intersections.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.
- Install a zebra crosswalk on the south leg of the intersection of Reeves Drive and Wilshire Boulevard.

5.1.7 Bicycle Access

5.1.7.1 Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

5.1.7.2 Bicycle Parking

Station Bicycle Parking Demand

The Wilshire/Rodeo station area is predominately employment in nature, including both high-income professional jobs as well as retail and service jobs. The higher income demographics and the predominance of employment around the station area would reduce bicycle parking demand. Service employees in the station area would likely park their bicycles at their originating stations or closer to their work place if their destination is too far to walk from the subway entrance. The station area lacks bicycle network connectivity, which would also moderate demand for bicycle parking.

Station Bicycle Parking Supply

Based on the forecast ridership and the above factors, the Metro Rail Design Criteria minimum of 20 spaces should be sufficient at project outset, but space should be provided to accommodate expanded bicycle parking in the future as demand warrants. The footprint for this station is more constrained than other stations, making it more difficult to provide both the minimum bicycle lockers and racks. Additional racks could be provided in-lieu of bicycle lockers due to footprint constraints.

Provision of 60 spaces would meet the Metro Bicycle Program goal of providing bicycle parking equivalent to 1.3 percent of daily station boardings. If this target is provided, around 45 spaces (75 percent) can be for long term parking and 15 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 45 spaces of long-term bicycle parking could be accommodated in a 225 to 360-square-foot footprint in a secured room or up to a 1,900-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site.

Bicycle Parking Site Location

Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. Bicycle parking should be located as close as possible to the station entrance, on the footprint of the current Ace Gallery.

5.1.8 Bus Access

5.1.8.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate westbound Metro Rapid Line 720 east of Beverly Drive to the existing Line 20 stop.
- Relocate the eastbound Line 20 stop east of Beverly Drive to the existing Rapid Line 720 stop.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, one bus stopping bay in each direction should be adequate for Beverly Drive, requiring 80 feet of curb space to accommodate bus stops. Two stopping bays should be adequate for westbound buses on Wilshire Boulevard, requiring 160 feet of curb space, and three bus stopping bays should be adequate for eastbound buses, requiring 240 feet of curb space. Based on the proposed bus stop relocations, there would be sufficient room to accommodate northbound and southbound buses on Beverly Drive, because they would be at existing bus stops.

There would be sufficient room on Wilshire Boulevard to accommodate the relocation of eastbound buses, as the entire south curb face of the block between Beverly Drive and Reeves Drive is already marked as a red curb, so no parking spaces would need to be removed. There would also be sufficient room to accommodate westbound buses. However approximately four parking spaces would need to be removed, as the full north block face between Beverly Drive and the mid-block driveway would need to be striped red for the bus stop zone.

These bus stop locations would provide the most convenient and safest transfers between bus and subway. However, they would limit on-street kiss-and-ride accessibility.

5.1.8.2 Shuttle Services

No new shuttle services are recommended as project features, as most of the destinations within the station area are located within a reasonable walking distance of the proposed entrance.

5.1.9 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, auto access improvements are only included as optional access enhancements.

5.1.10 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

5.1.10.1 Pedestrian Access

Sidewalks

To enhance pedestrian flow, widen the sidewalk to 15 feet width on blocks immediate adjacent to the station entrance on Wilshire Boulevard.

Crossings

- As a best practice, provide directional curb ramps at all intersections affected by station box construction, upon restoration of the street. While not immediately adjacent to the station entrance, the intersection of Beverly Drive and Wilshire Boulevard is the critical intersection for accessing the entrance. The installation of directional curb ramps at this intersection at a minimum is encouraged.
- Install audible pedestrian signals at the intersection of Beverly Drive and Wilshire Boulevard.
- Consider installing a Leading Pedestrian Interval at the intersection of Beverly Drive and Wilshire Boulevard.
- In addition to any intersections that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.
- Install curb extensions at intersections to reduce crossing distance. However, the installation of curb extensions would mean that the additional peak period traffic lane (due to parking restrictions) on Wilshire Boulevard would need to be phased out. Curb extensions could also conflict with the installation of on-street bicycle lanes, and bus stops depending on their size and location.
- Extend the median to the unprotected side of the crosswalk at the intersections of Wilshire Boulevard with Canon Drive (East). The crosswalk may need to be shifted slightly to accommodate this median extension.
- Due to the limitations of right-of-way, pedestrian refuge cannot be accommodated at any other crossings on Wilshire Boulevard without removing a travel lane or a left turn lane, which would negatively impact traffic operations.

5.1.10.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Beverly Hills to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the City of Beverly Hills, which would be the lead agency for the construction of any bicycle network improvements:

- Designate a north-south and an east-west bicycle route to link with the station
- Smaller roadways, such as Reeves Drive or Canon Drive may be good candidates for a north-south bicycle route. Charleville Boulevard could be a good candidate for an east-west route. Such routes would require signalization where they cross major streets. However, such routes should only be planned as part of a comprehensive bicycle network for the City of Beverly Hills. Metro's involvement would be dependent upon the City, as lead agency, to prepare the plan.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as potential project features.

Bicycle Share/Rental

The demand from subway riders alone will not be sufficient enough to support a bicycle sharing service, and due to the lack of existing facilities, and the limited future potential for the implementation of a bicycle network, the effectiveness of a bicycle share service may be limited. Most of the destinations in the Golden Triangle of Beverly Hills are in a convenient walking distance from the station entrance, so a bicycle sharing service may not be particularly useful at this station.

5.1.11 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent the station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops. Metro could work with the City of Beverly Hills to design shelters that match with the aesthetics of the station area.

5.1.11.1 Bus Stop Relocation

No additional bus stop relocations are proposed beyond those identified above as project features.

5.1.11.2 Shuttle Services

Most destinations in the station area are within walking distance, so a new shuttle route is not recommended.

5.1.12 Auto Access

5.1.12.1 Kiss-and-Ride

There would not be room to accommodate KNR on the block faces immediately adjacent to the entrance if bus stops are relocated as recommended above. There is insufficient area in the footprint of the station to accommodate convenient off-street KNR access. A drop-off area could be located in the alley immediately to the south of the station plaza. Another option would be to locate KNR in the loading zone for 9420 Wilshire Boulevard directly across the street from the station plaza.

5.1.12.2 Taxi

Given the number of destinations in the area of the Wilshire/Rodeo station, there may be some demand for taxi service at the station. There is insufficient space to accommodate taxis off-street in the station on a block face immediately adjacent to a station, because parking is prohibited on Wilshire Boulevard and Reeves Drive. However, in-lieu of KNR, a taxi zone could be located in the alley immediately to the south of the station plaza. Another option would be to locate taxis in the loading zone for 9420 Wilshire Boulevard directly across the street from the station plaza.

5.1.12.3 Shared Vehicles/Electric Vehicle Charging Stations

As with prior stations, subway riders are unlikely to be able to support a car sharing service on their own. Given the concentration of employment in the station area, there may be demand for shared car service, but the demographics of the neighborhood may limit that demand. There is insufficient space to accommodate shared cars in or around the station. Shared cars would need to be located in off-street parking spaces in an adjacent building, such as in the Beverly Gardens public parking garage below the Montage Hotel.

5.2 Wilshire/Rodeo Station Bank of America Entrance Option

5.2.1 Station Entrance Location

This station entrance option would be located on the northwest corner of Wilshire Boulevard and Beverly Drive, adjacent to the Bank of America Building. This entrance would be split into two half entrances along the sidewalk on the west side of Beverly Drive, each with one set of escalators and stairs. One entrance would be oriented to the north and the other oriented to the south. The elevator bank would be located in front of the Bank of America Building along Wilshire Boulevard at the current location of the sculpture.

In order to construct this entrance, both parking lanes on Beverly Drive would be removed as well as the southbound right-turn lane and the northbound left-turn pocket into the Bank of America parking garage. The sidewalk on the west side of Beverly Drive would be extended into Beverly Drive to accommodate the station entrances and heavier volumes of pedestrian traffic. Knockout panels would be located on the south side of the station box between El Camino Drive and Beverly Drive and near the southwest corner of Wilshire Boulevard and Reeves Drive.

5.2.2 Pedestrian Access

5.2.2.1 Sidewalks

To accommodate the two half entrances on the west side of Beverly Drive, the sidewalk would be shifted to the east, which would maintain adequate pedestrian circulation space. Due to this reconfiguration, sidewalks on the eastside of Beverly Drive would need to be narrowed to 11 feet.

5.2.2.2 Crossings

Table 5-2 summarizes the characteristics of the intersections within the station vicinity. The intersection of Canon Drive and Wilshire Boulevard would be beyond 500 feet of the entrance for this entrance option.

Table 5-2: Pedestrian Crossing Facilities Wilshire/Rodeo Station Bank of America Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/S Rodeo Drive	Signalized	Countdown. Push button actuated across all legs.	White parallel installed on west and south legs. 14 feet width on west leg. 13 feet width on south leg. Advance stop bars installed on eastbound Wilshire Boulevard.	Diagonal curb ramps installed on northwest, southwest, and southeast corners. Truncated domes not installed. Inadequate clear zone found on all ramps.
Wilshire Boulevard/ El Camino Drive	Signalized	Countdown. Push button actuated across all legs.	White parallel installed on west and south legs. 14 feet width on west leg. 13 feet width on south leg. Advance stop bars installed on eastbound Wilshire Boulevard.	Diagonal curb ramps installed on southwest, corner, directional on northwest and southeast corners. Truncated domes not installed. Inadequate clear zone found on southwest ramp.
Wilshire Boulevard/ Beverly Drive	See discussion above for Wilshire/Rodeo Station Ace Gallery Entrance Option			
Beverly Drive/Dayton Way	Signalized	Countdown. Push button actuated across all legs.	Textured ladder installed on all legs, 16 feet width. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes installed. Inadequate clear zone found on all ramps.
Wilshire Boulevard/ Reeves Drive	See discussion above for Wilshire/Rodeo Station Ace Gallery Entrance Option			

Source: Fehr and Peers, 2011

5.2.3 Proposed Project Features

In addition to the project features recommended above for the Wilshire/Rodeo Station Ace Gallery Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

5.2.3.1 Bicycle Network

Bicycle Parking

Bicycle Parking Site Location

There are severe space constraints for this entrance option. At most, some bicycle rack spaces could possibly be accommodated near the entrance, but to preserve pedestrian circulation, at-grade bicycle parking may not be able to be accommodated at this entrance. Metro could work with the City of Beverly Hills to identify alternative sites within a block of the station entrance to install bicycle racks, and/or an indoor bicycle room. If there is sufficient space on the mezzanine level of the station, a bicycle room could be provided. However, the Wilshire/Rodeo station is likely going to have the lowest bicycle parking demand, so if space constraints preclude providing Design Criteria minimum, it would not have as negative an effect on bicycle access than at other stations. The City of Beverly Hills will be served by the Wilshire/La Cienega Station and the Century City Station is also not far from City limits. Both of those stations have fewer space constraints to accommodate bicycle parking.

5.2.4 Bus Access

5.2.4.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate the eastbound Rapid Line 720 stop west of Beverly Drive to the near side stop shared with Line 20.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops. There would be sufficient room on Wilshire Boulevard to accommodate three stopping bays for eastbound bus service, as the entire south curb face of the block between El Camino Drive and Beverly Drive is already marked as a red curb, so no parking spaces would need to be removed.

5.2.5 Optional Access Enhancement

The optional access enhancements recommended above for the Wilshire/Rodeo Station Ace Gallery Entrance Option, are also applicable to this entrance option.

5.3 Wilshire/Rodeo Station Union Bank Entrance Option

5.3.1 Station Entrance Location

This station entrance option would be located on the southeast corner of the Wilshire Boulevard and El Camino Drive intersection at the current site of the Union Bank Building. The entrance would be retrofitted into the existing structure and would result in the displacement of parking for the building. This would be a full entrance with two sets of escalators and stairs. Station elevators would be located to the north of the station entrance. Knockout panels would be located on the northwest corner of Wilshire Boulevard and Beverly Drive and the southwest corner of Wilshire Boulevard and Reeves Drive.

5.3.2 Pedestrian Access

5.3.2.1 Sidewalks

See discussion above for Wilshire/Rodeo Station Ace Gallery Entrance Option.

5.3.2.2 Crossings

Table 5-3 summarizes the characteristics of the intersections within the station vicinity. The intersections of Canon Drive and Wilshire Boulevard, and Beverly Drive and Dayton Way would be beyond 500 feet of the entrance for this entrance option.

Table 5-3: Pedestrian Crossing Facilities Wilshire/Rodeo Station Union Bank Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/S Rodeo Drive	See discussion above for Wilshire/Rodeo Station Bank of America Entrance Option			
Rodeo/Dayton Way	Signalized	Countdown. Pre-timed across all legs.	Textured ladder installed on all legs with 16 feet widths. Diagonal crossing allowed. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Inadequate clear zone found on all ramps.
Wilshire Boulevard/ El Camino Drive	See discussion above for Wilshire/Rodeo Station Bank of America Entrance Option			
Wilshire Boulevard/ Beverly Drive	See discussion above for Wilshire/Rodeo Station Ace Gallery Entrance Option			
Wilshire Boulevard/ Reeves Drive	See discussion above for Wilshire/Rodeo Station Ace Gallery Entrance Option			

Source: Fehr and Peers, 2011

5.3.3 Proposed Project Features

In addition to the project features recommended above for the Wilshire/Rodeo Station Ace Gallery Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

5.3.3.1 Pedestrian Access

Crossings

Install highly visible decorative crosswalks on the east leg of the intersection of El Camino Drive and Wilshire Boulevard. Upgrade to current ADA standards. Install directional curb ramps at a minimum on the southeast corner of the intersection. The westbound left turn lane may need to be shortened to accommodate the crosswalk, which could have a modest effect on queuing in the left turn lane. The westbound stop bars may need to be shifted to the east to accommodate the crosswalk. If a crosswalk is not feasible, install appropriate signage and deterrents to prohibit crossing Wilshire Boulevard at the east leg of its intersection with El Camino Drive.

5.3.3.2 Bicycle Access

Bicycle Parking

Bicycle Parking Site Location

Though not as constrained as the Bank of America Entrance Option, there would be limited space available for bicycle parking adjacent to the station entrance. The Design Criteria minimum of 20 spaces could possibly be accommodated with racks. The installation of bicycle lockers would likely impede pedestrian access to the station entrance so they are not recommended. See above discussion of alternative locations for bicycle parking for the Bank of America Entrance Option.

5.3.4 Bus Access

5.3.4.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate the east bound Rapid Line 720 stop west of Beverly Drive to the near side stop shared with Line 20.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops. There would be sufficient room on Wilshire Boulevard to accommodate three stopping bays for eastbound bus service, as the entire south curb face of the block between El Camino Drive and Beverly Drive is already marked as a red curb, so no parking spaces would need to be removed.

5.3.5 Optional Access Enhancements

The optional access enhancements recommended above for the Wilshire/Rodeo Station Ace Gallery Entrance Option, are also applicable to this entrance option.

6.0 CENTURY CITY STATION

Three entrance options are being considered for the Century City Station. Two options would be located at the intersection of Avenue of the Stars and Constellation Boulevard (one on the northeast corner, the other on the southwest corner). The remaining entrance option would be located on the southwest corner of the intersection of Century Park East and Santa Monica Boulevard.

6.1 Century City Station Constellation Boulevard Option/Northeast Entrance

6.1.1 Station Entrance Location

This station entrance option would be located at the northeast corner of Constellation Boulevard and Avenue of the Stars. The entrance would be oriented toward the north and would consist of two stairs and escalators. The station elevators would be located to the east of the entrance. Knockout panels would be located near the northwest and southwest corners of Constellation Boulevard and Avenue of the Stars.

6.1.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be Constellation Boulevard and Avenue of the Stars. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

6.1.2.1 Sidewalks

Sidewalks are continuous on both Constellation Boulevard and Avenue of the Stars with few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks range from 8 feet to 12 feet on Constellation Boulevard, and 12 feet to 13 feet on Avenue of the Stars, meeting Metro design criteria minimum, but below the preferred width on Constellation Boulevard east of Avenue of the Stars.

6.1.2.2 Street Cross-Sections

Constellation Boulevard has an approximately 70-foot curb-to-curb cross-section, with two travel lanes in each direction plus dedicated left and right turn lanes at the intersection with Avenue of the Stars. On-street parking is prohibited on Constellation Boulevard.

Avenue of the Stars has an approximately 100-foot curb-to-curb cross-section with three travel lanes in each direction, plus double left turn lanes, and a single right turn lane northbound at the intersection with Constellation Boulevard. The cross section widens south of Constellation Boulevard to accommodate a large median and fountain. On-street parking is prohibited on Avenue of the Stars.

6.1.2.3 Crossings

Table 6-1 summarizes the characteristics of the one intersection contained within the station vicinity.

Table 6-1: Pedestrian Crossing Facilities Century City Station Constellation Boulevard Northeast Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Constellation Boulevard/ Avenue of the Stars	Signalized.	Countdown. Push button actuated across all legs	Patterned decorative crosswalk with white parallel striping installed on all legs, 23 feet wide on east/west legs, 17 feet wide on north/south legs width. Median on north/south legs. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landing/clear zones provided on all ramps.

Source: Fehr and Peers, 2011

The following assesses the crossings in the vicinity of this station according to Metro Rail Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with the primary crossing in the vicinity of the station area being signalized, so this criterion is met.
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings are provided at all curb ramps. Truncated domes are not installed, so this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Both Constellation Boulevard and Avenue of the Stars are wider than four lanes. Medians are installed that provide partial refuge for pedestrians crossing Avenue of the Stars. However, this criterion is not met on Constellation Boulevard.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Decorative patterned crosswalks are installed, so this criterion is met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 17 feet to 23 feet wide, so this criterion is met.

6.1.3 Bicycle Access

6.1.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities within 500 feet of the proposed station entrance. Existing bicycle lanes are installed on Santa Monica Boulevard west of Avenue of the Stars.

The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- Avenue of the Stars (bicycle lanes)

6.1.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

No additional bicycle facilities, aside from those identified above are planned for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan.

6.1.4 Bus Access

6.1.4.1 Location of Bus Stops

Bus stops for Metro Lines 16/316, and 28, Antelope Valley Transit Authority Line 786 (northbound buses) and Santa Clarita Transit are located on the east side of Avenue of the Stars north of Constellation Boulevard. The westbound bus stop for Big Blue Bus Line 5 and Santa Clarita Transit is located on Constellation Boulevard west of Avenue of the Stars on the north side of the street. The stop for Big Blue Bus Line 5 (eastbound buses), as well as the stops for Culver City Bus Line 3 and for Antelope Valley Transit Authority Line 786 (southbound buses) are located on the south side of Constellation Boulevard, east of Avenue of the Stars.

6.1.5 Shuttle Services

The station area is primarily served by regional transit lines, and does not have a local shuttle route serving the Century City area.

6.1.6 Auto Access

A surface lot is located adjacent to the parcel that would contain the proposed station entrance. Taxis are available at the Century Plaza Hotel.

6.1.7 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

6.1.7.1 Pedestrian Access

Sidewalks

To the extent feasible, widen the sidewalk on Constellation Boulevard adjacent to parcels Metro controls, including the station entrance, construction laydown areas, and any sidewalks affected by station box construction to ensure a minimum width of 12 feet.

Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Upon restoration of the street, reinstall the decorative crosswalks at the intersection of Avenue of the Stars and Constellation Boulevard. Maintain the existing width of all crosswalks at a minimum. Install advance stop bars at these intersections.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.

6.1.7.2 Bicycle Access

Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

Station Bicycle Parking Demand

The Century City Station is primarily an employment and retail destination, with a large concentration of professional jobs as well as retail and service jobs located at the Westfield Century City shopping center and in the ground floors of office buildings. There is a modest amount of residential located within the station area, which is almost exclusively of a higher income demographic. While there is no bicycle network connection directly into the heart of Century City, a bicycle lane on Santa Monica Boulevard from near Avenue of the Stars to the west does provide more bicycle network connectivity than most other stations, which could modestly increase parking demand.

Station Bicycle Parking Supply

Based on the characteristics of the station area, the Design Criteria minimum of 20 spaces, plus an additional 15 bicycle parking spaces beyond the minimum should be a sufficient starting point given the higher ridership for the station, but space should be provided to accommodate expanded bicycle parking in the future as demand warrants. While Century City is currently very auto-oriented, there may be opportunities to enhance multi-modal connectivity in the future, which would increase the importance of bicycle parking at the station, so reserving space for growth in bicycle parking demand is essential.

Provision of 111 spaces would meet the Metro Bicycle Program goal of providing bicycle parking equivalent to 1.3 percent of daily station boardings. If this target is provided, around 84 spaces (75 percent) can be for long term parking and 28 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 84 spaces of long-term bicycle parking could be accommodated in a 420 to 672-square-foot footprint in a secured room or up to a 3,500-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site.

Bicycle Parking Site Location

The location of bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. This entrance would be located on what is currently a vacant lot, thus space within the station plaza should be sufficient to support a variety of configurations for bicycle parking. However, an office tower is planned for the parcel. The preferred location for bicycle parking should consider the planned development of this parcel. Alternatively or additionally, several buildings in the Century

City area have underground bicycle parking facilities that are underutilized. Metro could coordinate with the owners of these facilities to provide access to these spaces for subway riders. A signage program would be essential to direct subway riders to these bicycle parking spaces.

Bicycle Share/Rental

No bicycle share/rental programs are recommended as project features, because the demand from subway riders alone will not be sufficient enough to support such a service.

6.1.7.3 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocated the westbound Big Blue Bus Line 5 and Santa Clarita Transit bus stop on Constellation Boulevard to a near side stop in front of the station entrance on Constellation Boulevard east of Avenue of the Stars.

The relocation of bus stops will require coordination and approval from Big Blue Bus and Santa Clarita Transit. Metro does not have the authority to relocate these bus stops, but Metro should coordinate with both agencies to evaluate the benefits and trade-offs associated with relocating this bus stop.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, three bus stopping bays should be adequate for eastbound Constellation Boulevard, requiring 240 feet, and one stopping bay westbound, requiring 80 feet. One bus stopping bay should be sufficient for northbound Avenue of the Stars.

There is sufficient space at the existing bus stops to accommodate these stopping bays. However, the three bus stopping bays on the south curb face of Constellation Boulevard would conflict with the existing right turn lane into the Century Plaza Towers, potentially requiring the removal of the turn lane. This could negatively affect traffic operation on Constellation Boulevard.

As identified in the *Feeder Service Operations Planning* report, there are a number of different locations where buses stop and terminate within Century City, as well as a variety of terminal looping patterns in place. The report recommended that it would be beneficial to create a transit hub in conjunction with the station entrance to organize and rationalize the stops and layovers for the variety of lines that serve the area. While preferable from a transit connectivity perspective, because the station parcel is slated for development, space to support an off street bus transit center would likely not be available. As an alternative, the curb faces on the north block face of Constellation Boulevard, and the east block face of Avenue of the Stars, could be reserved for bus stops/layovers. Curb cuts could be provided, as appropriate, to accommodate bus layovers without impacting traffic operations or bus operations along Constellation Boulevard and Avenue of the Stars. Enhanced bus stops could be provided in this area.

Shuttle Services

No new shuttle services are recommended as project features, because most of Century City is located within a reasonable walking distance of the station entrance. However, an optional shuttle service is discussed below.

6.1.7.4 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, auto access improvements are only included as optional access enhancements.

6.1.8 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

6.1.8.1 Pedestrian Access

Sidewalks

To enhance pedestrian flow, widen the sidewalk to 15 feet on blocks immediately adjacent to the station entrance on Avenue of the Stars and Constellation Boulevard.

Crossings

- As a best practice, provide directional curb ramps at the intersection of Avenue of the Stars and Constellation Boulevard, upon restoration of the street.
- Install audible pedestrian signals at the intersection of Avenue of the Stars and Constellation Boulevard.
- Consider installing a Leading Pedestrian Interval at the intersection of Avenue of the Stars and Constellation Boulevard.
- In addition to any intersections that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.
- Install curb extensions at the intersection of Avenue of the Stars and Constellation Boulevard to reduce crossing distance. However, the installation of curb extensions would mean that the dedicated right turn lanes at this intersection would need to be removed, which could negatively affect traffic operations. Curb extensions could also conflict with the installation of on-street bicycle lanes, and bus stops depending on their size and location.
- Extend medians to the unprotected side of the crosswalk for Avenue of the Stars crossings such that pedestrians will have medians on either side of the crosswalk when they are in the center median. Crosswalks may need to be shifted slightly to accommodate these median extensions.
- Due to the limitations of right-of-way, pedestrian refuge cannot be accommodated for Constellation Boulevard crossings without removing a travel lane or a turn lane, which would benefit pedestrian safety, but negatively affect intersection traffic operations.

6.1.8.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the City of Los Angeles, which would be the lead agency for the construction of any bicycle network improvements:

- Stripe lanes on Avenue of the Stars
- There appears to be insufficient roadway width to accommodate bicycle lanes on Avenue of the Stars without removing traffic lanes, turn lanes, or reducing the median, though the road was designated for bicycle lanes in the 2010 Bicycle Plan. However, due to the amount of roadway capacity in Century City, removing a lane to accommodate bicycle facilities is likely to have fewer negative traffic impacts than lane removal would have at other station areas of the LPA.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as potential project features.

Bicycle Share/Rental

Most of the destinations within Century City are contained within a ½ mile walk of the proposed station entrance, so most riders of the subway would easily be able to access their final destination on foot. Therefore, the demand from subway riders alone will not be sufficient enough to support a bicycle sharing service. Over time, as Century City grows and evolves, a bicycle sharing service may be of use to station area employees and residents. At such a time, locating a bicycle share hub at the station would be beneficial. A standalone facility could be constructed adjacent to the station entrance, or alternatively, space dedicated to a bicycle station could be constructed as part of the proposed office development over the station site.

6.1.8.3 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent the station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops.

Bus Stop Relocation

As an optional enhancement to facilitate connectivity between the subway and Metro Line 4/Rapid Line 704, consider routing both lines down Avenue of the Stars or Century Park East (depending on whether it is an eastbound or westbound bus) to link with the subway station at Constellation Boulevard. The route would then route back to Santa Monica Boulevard to continue service. This would enhance subway connectivity, but would delay through passengers.

Shuttle Services

Century City lacks a shuttle circulator service. Metro should coordinate with Century City employers and LADOT and consider implementing a shuttle circulator route in the Century City area, and any key destinations in relative proximity to Century City.

6.1.8.4 Auto Access

Kiss-and-Ride

As an employment center, Century City would primarily be a destination rather than an origin of a subway trip. Therefore, KNR demand would be low. However, modest KNR demand may be generated in the residential areas outside Century City. Because of the long blocks in Century City, there would be room to accommodate KNR on block faces adjacent to the entrance, either along the east side of Avenue of the Stars or on the north side of Constellation Boulevard, because only one bus stopping bay should be needed in both locations. However, if a bus transit center of some form is designated in this area, it could preclude the option of designating a KNR area.

Taxi

There could be modest demand for taxi service at this station. Taxis could be located along block faces adjacent to the station entrance as described above under KNR.

Shared Vehicles/Electric Vehicle Charging Stations

Subway riders are unlikely to be able to support a car sharing service on their own. Century City, because of its density, may be more likely to support car sharing service, though car sharing services would have greater demand in a dense residential area than a dense employment area. However, because of the high income characteristics of many workers in the station area, and the number of parking spaces provided in Century City, the demand for shared vehicles may not be as high as might otherwise be expected given the number of employees in the area. Because on-street parking is not allowed in Century City, shared vehicles would need to be parked either in a surface parking lot to be constructed adjacent to the station entrance, or in parking facilities at adjacent buildings, or in the proposed development on the station entrance parcel.

6.2 Century City Station Constellation Boulevard Option/Southwest Entrance

6.2.1 Station Entrance Location

This entrance option would be located at the southwest corner of Constellation Boulevard and Avenue of the Stars near the Century Plaza Hotel. The entrance would be oriented toward the west and would consist of two stairs and escalators. The station elevators would be located to the west of the entrance. In this scenario, the construction staging area would be located along the east side of Century Park East, at the eastern end of Constellation Boulevard and south of the Constellation Boulevard and Century Park East intersection.

6.2.2 Pedestrian Access

6.2.2.1 Street Cross-Sections

See above discussion of Avenue of the Stars and Constellation Boulevard for the Century City Station Constellation Boulevard Northeast Entrance Option. MGM Drive south of Constellation Boulevard has a 43-foot cross section with two travel lanes in each direction. Northbound travel lanes end at Constellation Boulevard with one right turn lane and one left/right turn lane.

6.2.2.2 Crossings

Table 6-2 summarizes the characteristics of the two intersections contained within the station vicinity.

Table 6-2: Pedestrian Crossing Facilities Century City Station Constellation Boulevard Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Constellation Boulevard/ Avenue of the Stars	See discussion above for Century City Station Constellation Boulevard Northeast Entrance Option.			
Constellation Boulevard/ MGM Drive	Signalized	Countdown. Push button actuated across Constellation Boulevard. Pre-timed across MGM Drive	White parallel, installed on west and south legs. 16 feet width on south leg. 20 feet width on west leg. Sidewalk is continuous along the north side of Constellation Boulevard. Pedestrian crossing prohibited across east leg. Advanced stop bar installed on south leg.	Diagonal curb ramps installed on southeast and southwest corners. Truncated domes not installed. southwest ramp provides adequate landing/clear zone, northwest ramp provides inadequate landing but adequate clear zone, southeast ramp provides adequate landing but inadequate clear zone.

Source: Fehr and Peers, 2011

The following criterion differs for this entrance option from the discussion for the Northeast Entrance Option.

- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color—* Decorative patterned crosswalks are not installed on the intersection of MGM Drive and Constellation Boulevard, so this criterion is not met.

6.2.3 Proposed Project Features

In addition to the project features recommended above for the Century City Station Constellation Boulevard Northeast Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

6.2.3.1 Bicycle Access

Bicycle Parking Site Location

The area available for bicycle parking will be more constrained than for the Northeast Entrance Option, which would necessitate a more compact configuration for any long term bicycle parking that is provided, unless the Century Plaza Hotel could provide a bicycle parking area in or adjacent to its facilities. Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. Bicycle parking should be located as close as possible to the station entrance.

6.2.3.2 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate the bus stop for Lines 16/316, 28, and Antelope Valley Transit Authority Line 786 to a near side stop on Avenue of the stars south of Constellation Boulevard.
- Relocate the eastbound Big Blue Bus Line 5, Culver City Bus Line 3, and Antelope Valley Transit Authority Line 786 to a near side stop in front of the station entrance on Constellation Boulevard west of Avenue of the Stars.

The relocation of bus stops will require coordination and approval from Metro Bus Operations, as well as Big Blue Bus and Santa Clarita Transit. Metro does not have the authority to relocate bus stops for other agencies, but Metro should coordinate with both agencies to evaluate the benefits and trade-offs associated with relocating these stops.

There is sufficient space to accommodate one bus stopping bay on Avenue of the Stars south of Constellation Boulevard. However, the northbound right-turn only lane at Avenue of the Stars and Constellation Boulevard may need to be reduced or removed to accommodate a near side bus stop, which could negatively affect traffic operation on Avenue of the Stars.

There is sufficient space to accommodate two bus stopping bays on eastbound Constellation Boulevard in front of the station entrance, but this would likely necessitate the removal of the eastbound right turn lane at Avenue of the Stars and Constellation Boulevard, which could negatively impact traffic operations. The *Feeder Service Operations Planning* report indicates that up to three stopping bays would be needed for Constellation Boulevard. Three stopping bays will be difficult to accommodate due to the number of driveway access points along the southern block face of Constellation Boulevard between MGM Drive and Avenue of the Stars.

6.2.4 Optional Access Enhancements

In addition to the optional access enhancements recommended above for the Century City Station Constellation Boulevard Northeast Entrance Option, the following sections summarize access enhancements that are recommended to further improve station access.

6.2.4.1 Pedestrian Access

Crossings

In addition to any intersections that are affected by station box construction, upgrade the intersection of MGM Drive and Constellation Boulevard to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.

6.2.4.2 Auto Access

Kiss-and-Ride

There would likely be insufficient room to accommodate a KNR area on Constellation Boulevard adjacent to the station entrance. On Avenue of the Stars, south of the driveway entrance to the Century Plaza hotel, there would be room to designate an area if desired.

Taxi

There could be modest demand for taxi service at this station. Metro should coordinate with the Century Plaza Hotel on placement and operation of taxis that could serve both the station and the hotel.

6.3 Century City Station Santa Monica Boulevard Option

6.3.1 Station Entrance Location

This entrance option would be located on the southwest corner of Santa Monica Boulevard and Century Park East. The entrance would be oriented to the west and would consist of two sets of stairs and escalators. The station elevators would be located on the southeast corner of Santa Monica Boulevard and Century Park East. One knockout panel would be provided on the south side of the station box between Century Park East and Moreno Drive.

6.3.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be Santa Monica Boulevard and Century Park East. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

6.3.2.1 Sidewalks

Sidewalks are continuous on both Santa Monica Boulevard and Century Park East with few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks are primarily 12 feet wide, meeting Metro design criteria.

6.3.2.2 Street Cross-Sections

Santa Monica Boulevard has an approximately 182-foot curb-to-curb cross-section with three travel lanes in each direction, dedicated left and right turn lanes, an eastbound bus only lane, as well as wide landscaped medians. On-street parking is prohibited on Santa Monica Boulevard in the vicinity of the station.

Century Park East has an approximately 70-foot curb-to-curb cross-section with three travel lanes southbound, and four turn lanes northbound (two left turn lanes and two right turn lanes) at its intersection with Santa Monica Boulevard.

6.3.2.3 Crossings

Table 6-3 summarizes the characteristics of the one intersection contained within the station vicinity.

Table 6-3: Pedestrian Crossing Facilities Century City Station Santa Monica/Century Park East Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Santa Monica Boulevard/ Century Park East	Signalized.	Countdown. Push button actuated across east leg Pre-timed on south leg	Grey stamped crosswalk with white parallel striping installed on south leg (21 feet wide) and east leg (24 feet wide). Median on east leg. Advance stop bars not installed.	Diagonal curb ramps installed on southwest, southeast, corners. Directional ramp installed on northeast corner and east leg mid-block refuge. Truncated domes installed on all ramps. Adequate landings/clear zone provided on all ramps.

Source: Fehr and Peers, 2011

The following assesses the crossings in the vicinity of this station according to the Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct, with the primary crossing in the vicinity of the station area being signalized, so this criterion is met.
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings are provided at all curb ramps. Truncated domes are installed, so this criterion is met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Both Santa Monica Boulevard and Century Park East are wider than four lanes. Medians are installed on Santa Monica Boulevard that provide pedestrian refuge. This criterion is not met on Century Park East.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Grey stamped crosswalks are installed, so this criterion is met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 12 feet to 24 feet wide, so this criterion is met.

6.3.3 Bicycle Access

6.3.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities within 500 feet of the proposed station entrance. Existing bicycle lanes are installed on Santa Monica Boulevard west of Avenue of the Stars, approximately ¼

mile from this station entrance. As discussed above, bicycle lanes have been identified for priority implementation on Avenue of the Stars.

6.3.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

No additional bicycle facilities, aside from those identified above are planned for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan.

6.3.4 Bus Access

6.3.4.1 Location of Bus Stops

Bus stops for Metro Line 28, LADOT Commuter Express 534 (eastbound buses), and Antelope Valley Transit Authority Line 786 (afternoon, pick-up) are located on the west side of Century Park East south of Santa Monica Boulevard.

The bus stop for Metro Line 4 (westbound buses), and for Metro Lines 16/316 is located on the north side of Santa Monica Boulevard at a curb cut just west of Century Park East.

The bus stop for Metro Line 4 (eastbound) is located in the center median, east of Century Park East.

6.3.5 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features for this entrance option.

6.3.5.1 Pedestrian Access

Crossings

- Given the location of the entrance on the southwest corner of the intersection, it would be preferable to have a crosswalk on the west leg of the intersection of Century Park East and Santa Monica Boulevard. To provide a crosswalk at this location would require significant reconfiguration to the intersection design, but would support the relocation of bus stops to the near side to facilitate convenient transfer between subway and bus. The feasibility of this should be explored during station design. However, because this intersection may be reconfigured during construction, the opportunity to make this improvement may be available.
- Upon restoration of the street, reinstall ADA compliant ramps and differentiated crosswalks at the intersection of Century Park East and Santa Monica Boulevard. Maintain the existing width of all crosswalks at a minimum. Install advance stop bars at this intersection.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.

6.3.5.2 Bicycle Access

Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local

jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

See above discussion of bicycle parking demand and supply under the Constellation Boulevard entrance options.

Bicycle Parking Site Location

Because there is limited space around the station entrance due to existing development, bicycle parking would need to be provided in a very compact footprint if it is to be located close to the station entrance. Alternatively, bicycle parking facilities could be located in adjacent developments, as long as adequate signage directs riders to the location of the facilities.

Bicycle Share/Rental

No bicycle share/rental programs are recommended as project features, because the demand from subway riders alone will not be sufficient enough to support such a service.

6.3.5.3 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate far side eastbound Line 4 bus stop to a near side bus stop west of Century Park East. As noted above, this would require reconfiguring the intersection and the installation of a crosswalk on the west leg of the intersection. The existing eastbound u-turn lane may need to be shifted or removed to accommodate the bus stop.
- Relocate Metro Rapid Lines 704 and 728 bus stops from Avenue of the Stars to Century Park east to facilitate convenient transfer.

The relocation of bus stops will require coordination and approval from Metro Bus Operations. The trade-offs would need to be evaluated and balanced in determining the feasibility of relocating bus stops.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, two to three bus stopping bays should be adequate for eastbound Santa Monica Boulevard, requiring 240 feet. Three to four stopping bays should be sufficient for westbound Santa Monica Boulevard, requiring 320 feet. The Feeder Service Operations Planning report recommends two bays for northbound Avenue of the Stars and one bay for southbound, requiring 160 feet and 80 feet respectively. If the subway station is located at Century Park East, it is recommended that Avenue of the Stars service be rerouted to reach the subway station. Therefore, these stopping bays would be required on Century Park East.

There is insufficient space at the existing westbound bus curb cut on Santa Monica Boulevard to accommodate these stopping bays. The curb cut would need to be doubled in length, which would

reduce sidewalk width. However, the sidewalk would be 12 feet at a minimum, so it would not negatively affect pedestrian access. There is sufficient space within the bus-only lane to accommodate three bus stopping bays for the eastbound buses on Santa Monica Boulevard. The existing bus stop on the west curb face of Century Park East already accommodates one bus stopping bay. There is sufficient curb space to accommodate two bus stopping bays on the east curb face of Century Park East. However, bus stops in this location would conflict with one of the existing right turn lanes onto Santa Monica Boulevard, potentially requiring the removal of the outermost right turn lane. This could negatively affect traffic operations on Century Park East. Due to the capacity of the road, the removal of the right turn lane may not be as major an impact as it would in other station areas of the LPA.

Shuttle Services

No new shuttle services are recommended as project features, because most of Century City is located within a reasonable walking distance of the station entrance. However, an optional shuttle service is discussed under the Constellation Boulevard entrance option.

6.3.5.4 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, auto access improvements are only included as optional access enhancements.

6.3.6 Optional Access Enhancements

The following sections summarize access enhancements that are recommended to further improve station access for this station.

6.3.6.1 Pedestrian Access

Crossings

- As a best practice, provide directional curb ramps at the intersection of Avenue of the Stars and Constellation Boulevard, upon restoration of the street.
- Install audible pedestrian signals at the intersection of Century Park East and Santa Monica Boulevard.
- Consider installing a Leading Pedestrian Interval at the intersection of Century Park East and Santa Monica Boulevard.
- In addition to any intersections that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.
- Install curb extensions on Century Park East at Santa Monica Boulevard to reduce crossing distance. However, the installation of curb extensions would mean that one dedicated right turn lanes at this intersection would need to be removed, which could negatively affect traffic operations. Curb extensions could also conflict with the installation of on-street bicycle lanes, and bus stops depending on their size and location.

- Due to the limitations of right-of-way, pedestrian refuge cannot be accommodated for Century Park East crossings without removing a travel lane or a turn lane, which would benefit pedestrian safety, but could negatively affect intersection traffic operations. However, because of the high capacity of Century Park East, removing capacity to accommodate this pedestrian improvement would likely have fewer negative traffic impacts than at other station areas of the LPA.

6.3.6.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the City of Los Angeles, which would be the lead agency for the construction of any bicycle network improvements:

- Stripe bicycle lanes on Century Park East
- There is insufficient roadway width to accommodate bicycle lanes on Century Park East without removing traffic lanes, turn lanes, or reducing the median which would benefit bicycle circulation, but could negatively affect traffic operations on Century Park East. However, due to the capacity on roadways in Century City, removing a lane to accommodate bicycle facilities is likely to have fewer negative traffic impacts than lane removal would have at other station areas of the LPA. Century Park East was not a street identified in the 2010 Bicycle Plan for bicycle improvements.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as potential project features.

Bicycle Share/Rental

See above discussion of bicycle rental under the Constellation Boulevard entrance options.

6.3.6.3 Auto Access

Kiss-and-Ride

A KNR area could be designated on the west curb face of Century Park East, south of the bus stop.

Taxi

Taxis could be located along block faces adjacent to the station entrance as described above under KNR.

7.0 WESTWOOD/UCLA STATION

Station entrance options are under consideration for three station location options: the On-Street option, the On-Street option with split entrances at Westwood Boulevard, and the Off-Street option.

7.1 On-Street Station Option/North of Wilshire Boulevard Entrances

7.1.1 Station Entrance Locations

The entrances for this station option would be located on the north side of Wilshire Boulevard between Gayley Avenue and Veteran Avenue in Lot 36 and on the northwest corner of the Wilshire Boulevard and Westwood Boulevard intersection. The entrance in Lot 36 would be oriented toward the west and would consist of two sets of stairs and escalators. A station elevator would be located east of the entrance.

The entrance at the Wilshire Boulevard and Westwood Boulevard intersection would be retrofitted into the existing structure. The entrance would be designed to enter the Wilshire Medical Building within the parking garage along Westwood Boulevard to avoid impacting the potential historic façade of the building along Wilshire Boulevard. The entrance would be oriented toward the north and would consist of two set of stairs and escalators. A station elevator would be located south of the entrance. A knockout panel would be located on the south side of Wilshire Boulevard between Midvale Avenue and Westwood Boulevard. Knockout panels would also be located on the north and east sides of the entrance tunnel in Lot 36.

7.1.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be on Wilshire Boulevard, Westwood Boulevard, Galey Avenue, Glendon Avenue, and Lindbrook Drive. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

7.1.2.1 Sidewalks

Sidewalks are continuous on Wilshire Boulevard, Westwood Boulevard, Galey Avenue, Glendon Avenue, and Lindbrook Drive with few interruptions to the pedestrian path of travel due to driveways. Within the station vicinity, sidewalks range from 5 feet to 20 feet, meeting Metro design criteria in some locations, but not in others, including on the south side of Wilshire Boulevard, east of Westwood Boulevard at the Metro Line 20/720 stop, and on Gayley Avenue between Lindbrook Drive and Wilshire Boulevard.

7.1.2.2 Street Cross-Sections

Wilshire Boulevard has an approximately 105-foot to 110-foot curb-to-curb cross-section with four travel lanes in each direction, plus dedicated double left turn lanes at most intersections in the station vicinity. Westwood Boulevard has an approximately 80-foot to 84-foot curb-to-curb cross-section with two travel lanes in each direction, one part-time peak period travel/parking lane, plus dedicated left turn lanes at most intersections in the station vicinity. Galey/Midvale Avenue has an approximately 68-foot to 72-foot curb-to-curb cross-section north of Wilshire Boulevard with two travel lanes in each direction and dedicated turn lanes and curb-side parking. South of Wilshire Boulevard, it has an approximately 68-foot curb-to-curb cross-section, tapering to a 40-foot curb-to-curb cross-section, with one lane in each direction and curb-side parking. Glendon Avenue has an

approximately 40-foot curb-to-curb cross-section south of Wilshire Boulevard, with one lane in each direction, with curb-side parking, and an approximately 69-foot curb-to-curb cross-section north of Wilshire Boulevard, with a travel lane in each direction plus dedicated turn lanes. Lindbrook Drive has an approximately 60-foot curb-to-curb cross-section, with one or two lanes in each direction, with curb-side parking.

7.1.2.3 Crossings

Table 7-1 summarizes the characteristics of the intersections contained within the station vicinity.

Table 7-1: Pedestrian Crossing Facilities Westwood/UCLA Station On-Street Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard/ Galey Avenue	Signalized.	Countdown. Push button actuated across Wilshire Boulevard, pre-timed across Galey Avenue	Crosswalk with white parallel striping installed on all legs, 20 feet wide on the north, west, and east legs, and 16 feet wide on the south leg. No medians installed. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps.
Wilshire Boulevard/ Westwood Boulevard	Signalized.	Countdown. Push button actuated across Wilshire Boulevard, pre-timed across Westwood Boulevard	Crosswalk with white parallel striping installed on all legs, 21 feet wide on east/west legs, 20 feet wide on north/south legs. No medians installed. Advance stop bars not installed.	Directional curb ramps installed on southwest corner, diagonal curb ramps installed on all other corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps.
Wilshire Boulevard/ Glendon Avenue	Signalized.	Countdown. Push button actuated across Wilshire Boulevard, pre-timed across Glendon Avenue	Crosswalks with white parallel striping installed on all legs, 20 feet wide on north leg and 15 feet wide on south leg and east/west legs. No medians installed. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps.
Lindbrook Drive/ Galey Avenue	Signalized.	Countdown. Push button actuated across Galey Avenue, pre-timed across Lindbrook Drive	Crosswalks with white parallel striping installed on north leg (18 feet wide) and on east leg (16 feet wide). No medians installed. Advance stop bars not installed.	Diagonal curb ramps installed on the northeast corner. Directional ramps installed on the northwest and southeast corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps.
Lindbrook Drive/ Westwood Boulevard	Signalized.	Countdown. Pre-timed across all legs.	16 feet wide Crosswalks with white parallel striping installed on all legs. Medians installed on Westwood Boulevard. Advance stop bars not installed.	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps.

Source: Fehr and Peers, 2011

The following assesses the crossings in the vicinity of the station according to Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct. However, pedestrians with origins or destinations on the south side of Wilshire Boulevard would have to cross up to 10 lanes of heavy traffic to access the station. While this would occur at a signalized crossing, the crossing distance, lack of median refuge, and traffic volumes are such that this criterion is not met.
- *Crossings shall be designed in accordance with ADAAG*—Adequate landings are provided at all curb ramps. Truncated domes are not installed, so this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—Wilshire Boulevard is wider than four lanes, as are Westwood Boulevard, Gayley Avenue, and Glendon Avenue where they intersect with Wilshire Boulevard. No medians are installed; therefore this criterion is not met.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Decorative patterned crosswalks are not installed, so this criterion is not met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.
- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 16 feet to 22 feet wide, so this criterion is met.

7.1.3 Bicycle Access

7.1.3.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities within 500 feet of the proposed station entrance. Existing bicycle lanes are installed on Westwood Boulevard south of Wellworth Avenue, approximately 850 feet from the station entrance, and on Le Conte Avenue, approximately 1,850 feet from the station entrance.

The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- Wilshire Boulevard (bicycle lanes)
- Westwood Boulevard (bicycle lanes)

7.1.3.2 Station Adjacent Long-Term Planned Bicycle Facilities

The following bicycle facilities have been identified for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan:

- Le Conte Avenue (bicycle friendly street)
- Veteran Avenue (bicycle friendly street)

7.1.4 Bus Access

7.1.4.1 Location of Bus Stops

Bus stops for Metro Rapid Lines 720, as well as Metro Line 20, are on the north side of Wilshire Boulevard, west of Westwood Boulevard (westbound buses) and on the south side of Wilshire Boulevard east of Westwood Boulevard (eastbound buses).

Bus stops for the LADOT Commuter Express Lines 431 and 534 (eastbound buses) are located on the south side of Wilshire Boulevard, west of Westwood Boulevard. Bus stops for the LADOT Commuter Express Lines 431 (westbound buses) and 573 (northbound buses) are located on the north side of Wilshire Boulevard, east of Glendon Avenue.

Bus stops for Metro Rapid Line 761 and Metro Line 233 are on the west side of Westwood Boulevard, north of Wilshire Boulevard (southbound buses) and on the east side of Westwood Boulevard south of Lindbrook Drive (northbound buses).

Bus stops for Big Blue Bus Lines 1, 2 and 3 are on the west side of Westwood Boulevard (westbound buses) north of Wilshire Boulevard, and on the east side of Westwood Boulevard south of Lindbrook Drive (eastbound buses). Bus stops for Big Blue Bus Lines 8, 12 and Super 12 are on the west side of Westwood Boulevard (southbound buses) north of Wilshire Boulevard, and on the east side of Westwood Boulevard (northbound buses) south of Lindbrook Drive.

Bus stops for Culver City Bus Rapid Line 6 and Line 6 are on the west side of Westwood Boulevard north of Wilshire Boulevard (southbound buses), and on the east side of Westwood Boulevard south of Lindbrook Drive (northbound buses).

Bus stops for Antelope Valley Transit Authority Line 786 are on the west side of Westwood Boulevard, south of Wilshire Boulevard (southbound buses), and on the east side of Westwood Boulevard, south of Wilshire Boulevard (northbound buses).

7.1.4.2 Shuttle Services

The bus stop for the UCLA Campus Express is on the south side of Kinross Avenue between Veteran and Gayley Avenues.

The bus stop for the UCLA Wilshire Center Express is on Midvale Avenue between Wilshire Boulevard and Ashton Avenue.

7.1.4.3 Auto Access

UCLA Lot 36 is located between Wilshire Boulevard, Kinross Avenue, Veteran Avenue, and Galey Avenue. The Zipcar car sharing service operates shared cars in several locations on the UCLA campus and in Westwood.

7.1.5 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

7.1.5.1 Pedestrian Access

Sidewalks

To the extent it is feasible, widen the sidewalk on blocks immediate adjacent to parcels controlled by Metro, including the station entrance, construction laydown area, and any sidewalks affected by station box construction, to ensure that there is a minimum 12-foot wide sidewalk.

Crossings

- At all intersections that will be affected by station box construction, upon restoration of the street, upgrade curb ramps to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.
- Install highly visible decorative or otherwise differentiated crosswalks at intersections that will be affected by station box construction. Maintain the existing width of all crosswalks at a minimum. Install advance stop bars at these intersections.
- At all signalized intersections affected by station box construction, upon restoration, ensure pedestrian signal timings reflect the 2009 Federal MUTCD walking speed requirements of 3.5 feet per second.

7.1.5.2 Bicycle Access

Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

Station Bicycle Parking Demand

The location of the Westwood/UCLA Station is a mixed area with concentrations of professional jobs, service jobs, higher income residents, and the UCLA campus community. The higher income demographics of the professional workers and residents who live along Wilshire Boulevard would generate lower bicycle parking demand. But the UCLA community, including the thousands of students who live on or near campus, could potentially generate significant bicycle parking demand. While limited, there is some bicycle network connectivity around the station area, which could modestly increase bicycle parking demand.

Station Bicycle Parking Supply

Based on the high forecast ridership at this station, the presence of a high number of cyclists at UCLA, and the limited but present bicycle network in the station area meeting Metro's minimum standards would likely be insufficient to meet the demand for bicycle parking at this station. At the very minimum, parking for 50 bicycles should be provided, but to the extent feasible, as close to the Metro Bicycle Program goal of providing spaces at 1.3 percent of daily station boardings should be implemented. Space to accommodate expanded bicycle parking in the future should be provided in the station design.

Provision of 156 spaces would meet the Metro Bicycle Program goal of providing bicycle parking equivalent to 1.3 percent of daily station boardings. If this target is provided, around 117 spaces (75 percent) can be for long term parking and 39 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 117 spaces of long-term bicycle parking could be accommodated in a 585 to 936-square-foot footprint in a secured room or up to a 4,900-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site. Given that it would be beneficial to start with more bicycle parking at project outset, a more compact footprint in a secured bicycle room is recommended.

Bicycle Parking Site Location

Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station. UCLA should be consulted to determine the feasibility of constructing bicycle parking at the current site of UCLA Lot 36. Given the potential for high bicycle access, this station should be considered for enhanced bicycle facilities, consistent with the clean mobility center/bicycle station as detailed in the Metro Rail Design Guidelines (Section 2.4.4).

Bicycle Share/Rental

The demand from subway riders alone will not be sufficient enough to support a bicycle share/rental service at this station. However, with participation from UCLA, and the implementation of a shared bicycle service on campus and at the station, a bicycle share/rental service could be very successful. Because the service would require involvement from UCLA, it is recommended below under optional access enhancements.

7.1.6 Bus Access

7.1.6.1 Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Relocate eastbound bus stop for Metro 20/720 to the near-side of Westwood Boulevard/Wilshire Boulevard intersection to make transfers between bus/subway quicker. This recommendation minimizes the number of streets needed to cross to transfer. Other bus stops in the immediate vicinity are in the correct locations for interfacing with the subway.

Accommodation of Bus Stopping Bays

Based on the *Feeder Service Operations Planning* report, three to four bus stopping bays should be adequate for Wilshire Boulevard eastbound, requiring up to 320 feet, and four bus stopping bays should be adequate for Wilshire Boulevard westbound, requiring 320 feet. On Westwood Boulevard northbound, four to five bus stopping bays should be adequate, requiring up to 400 feet, while four bus stopping bays should be adequate southbound, requiring 320 feet. In addition, one bus stopping bay (80 feet) is needed on Veteran Avenue southbound to serve the terminal loop of the 761 Rapid.

There is sufficient space for eastbound Wilshire Boulevard to accommodate the required stopping space. For westbound Wilshire Boulevard bus service, the bus stopping bay distance is short approximately 20 feet. In both cases, the entire block face would be used for buses. There is insufficient room on Westwood Boulevard to accommodate the required bus stopping distance, because the block is only 240 feet long, and is interrupted by driveways. Some bus routes could use bus stops immediately adjacent to the station entrance to be constructed at UCLA Lot 36 to alleviate overloading bus stops on Westwood Boulevard. Clear signage within the station should direct riders to the appropriate entrance to transfer to their preferred connecting bus line.

7.1.6.2 Shuttle Services

No shuttle enhancements are included as project features.

7.1.7 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, any auto access improvements are only included as optional access enhancements.

7.1.8 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

7.1.8.1 Pedestrian Access

Sidewalks

- To enhance pedestrian flow, widen the sidewalk to 15 feet on blocks immediate adjacent to the station entrance on Wilshire and Westwood Boulevards, and on Galey Avenue.
- Widen sidewalk to ensure a minimum sidewalk width of 12 feet within 500 feet of either station entrance.

Crossings

- As a best practice, provide directional curb ramps at all intersections affected by station box construction, upon restoration of the street. At a minimum, the installation of directional curb ramps at the intersections of Westwood and Wilshire Boulevards, as well as Galey Avenue and Wilshire Boulevard are strongly recommended because they are the primary intersections to access the station entrance.
- Install audible pedestrian signals at the intersections of Galey Avenue and Wilshire Boulevard, and Westwood and Wilshire Boulevards.
- Consider installing a Leading Pedestrian Interval at the intersections of Galey Avenue and Wilshire Boulevard, and Westwood and Wilshire Boulevards.
- In addition to any intersections that are affected by station box construction, upgrade any intersections located within 500 feet of the station entrance to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps. Install highly visible decorative crosswalks at these intersections as well.
- Install curb extensions at intersections to reduce crossing distance. However, the installation of curb extensions (which are more critical on Wilshire Boulevard given its width) would necessitate

the reduction of roadway capacity, which would negatively impact roadway operations. Curb extensions could also conflict with the installation of on-street bicycle lanes, the proposed Wilshire bus-only lanes, and potentially other bus stops depending on their size and location.

- Aside from the west leg of Wilshire Boulevard at Galey Avenue/Midvale Avenue, pedestrian refuge medians cannot be accommodated without removing a travel lane or a turn lane, which would benefit pedestrian safety, but negatively affect intersection traffic operations. Based on the traffic volumes in the vicinity of this station, removing a turn lane could be a significant impact, but would have major safety benefits to pedestrians. It should be considered at all crossings.
- Because of the level of both vehicular and pedestrian traffic at the intersection of Wilshire and Westwood Boulevards, constructing a station entrance on the south side of Wilshire Boulevard would be more effective for enhancing pedestrian safety than installing pedestrian refuge medians at this intersection.

7.1.8.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity.

The following improvement options should be considered in coordination with the City of Los Angeles, which would be the lead agency for the construction of any bicycle network improvements:

- Stripe a bicycle lane on Westwood Boulevard between Le Conte Avenue and Wellworth Avenue, to provide a direct connection to UCLA Campus from the existing bicycle lane on Westwood Boulevard south of Wellworth Avenue. There may be sufficient roadway width to accommodate bicycle lanes on Westwood Boulevard without removing traffic lanes, turn lanes, or reducing the median, but it should be studied in more detail to determine the feasibility. Regardless, due to this critical gap in the bicycle network, it should strongly be considered for implementation, even though it may affect traffic operations on Westwood Boulevard.
- Add a bicycle lane on Gayley Avenue between Wilshire Boulevard and the existing bike lane at Weyburn Avenue.
- Designate bicycle route on Midvale Avenue to Santa Monica Boulevard.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as potential project features.

Bicycle Share/Rental

The Westwood/UCLA Station would be the station most likely to support a bicycle sharing service given the concentration of employment in Westwood, as well as the presence of UCLA. Metro should coordinate with UCLA, and interested parties in the private sector to determine if a shared bicycle service would be viable to serve the station, Westwood, and the UCLA campus. Space for shared rentals should be provided in the bicycle station, which will most likely be located at the station

entrance located in Lot 36. Alternatively, this service could be located in a store front near one of the proposed entrances. The service would likely only be viable if it also serves the UCLA campus.

7.1.8.3 Bus Access

As optional enhancements, improved bus shelters could be provided at stops adjacent the station entrance. Enhanced seating and shelters could be installed, and shade trees and other landscaping could be provided to improve the aesthetics and comfort for passengers waiting at stops.

Bus Stop Relocation

No additional bus stop relocations are proposed beyond those identified above as project features.

Shuttle Services

As an optional enhancement, Metro could work with UCLA to determine preferred locations for shuttle stops for campus shuttles operated by UCLA. Options could include:

- Maintain existing shuttle stop locations, but direct subway riders to shuttles with way finding signage
- Move on-street shuttle stops to the north side of Wilshire Boulevard between Westwood Boulevard and Gayley Avenue. Shuttles would share the stop with Metro 20/720. UCLA shuttle buses would make a clockwise loop around Westwood Boulevard/Wilshire Boulevard/Gayley Avenue block. Alternatively, this shuttle stop could be located on Wilshire Boulevard west of Galey Avenue, to provide more bus stop capacity which may be necessitated by increased frequency of UCLA shuttles. The shuttle would turn on Veteran Avenue in this location. UCLA shuttle stops should have clear signage, and bus stop amenities including seating and shade.

7.1.8.4 Auto Access

Kiss-and-Ride

There are limited opportunities for a drop-off zone along Wilshire Boulevard, Westwood Boulevard, or Gayley Avenue due to no-parking (no stopping any time) restrictions, bus stop locations, and high level of vehicular and bus activity, so an off-street zone is the best way to accommodate KNR if it is a desirable access option.

Taxi

Given the high concentration of population and employment in the station area, there would likely be demand for taxi service at this station. Taxis could be located in UCLA Lot 36 on a temporary basis, until UCLA develops the lot. Alternatively, a taxi zone could be designated at a few of the on-street parking spaces on Lindbrook Drive, or on Kinross Avenue with appropriate signage directing subway riders to the taxi stand.

Shared Vehicles/Electric Vehicle Charging Stations

The Zipcar car sharing service already has several shared vehicles available in Westwood and on the UCLA campus. Car sharing services have been most successful at universities in Los Angeles. Metro should coordinate with Zipcar to locate or consolidate shared vehicles to a facility at the station. Depending on Zipcar's planned deployment of cars, spaces in UCLA Lot 36 or an adjacent off-street parking facility could be converted to support shared vehicles. If warranted, electric vehicle charging

stations could be installed to support electric vehicles as shared cars. Signage should direct subway riders to the location where shared cars are parked.

7.2 Westwood/UCLA Station On-Street Station Option/North and South of Wilshire Boulevard Entrances

7.2.1 Station Entrance Locations

One entrance for this station option would be located on the northwest corner of Wilshire Boulevard and Gayley Avenue in Lot 36. But the station entrances at the Wilshire Boulevard and Westwood Boulevard intersection would be split between the north and south sides of Wilshire Boulevard. The entrance in Lot 36 would be oriented toward the west and would consist of two sets of stairs and escalators as well as an elevator located to the south of the entrance. The two entrances near Westwood Boulevard would be *half entrances*, consisting of only one set of escalators and stairs each, as well as one elevator adjacent to each entrance.

The entrance on the north side of Wilshire Boulevard would be oriented toward the north, and the station elevator would be located to the west of the entrance, along Wilshire Boulevard. The entrance on the south side of Wilshire Boulevard would be oriented toward the east, and the station elevator would be located west of the entrance along Wilshire Boulevard. Knockout panels would be located on the north and east sides of the entrance tunnel in Lot 36.

7.2.2 Pedestrian Access

7.2.2.1 Crossings

The addition of the entrance south of Wilshire Boulevard would result in a different outcome for the following design criterion than the On-Street Station discussed above:

- *Pedestrian access shall be as direct and safe as possible*—Pedestrian access to the station entrance is direct. The addition of the half entrance on the south side of Wilshire Boulevard would eliminate the need for pedestrians to cross up to 10 lanes of heavy traffic to access the station. In contrast to the Off-Street Entrance Options below, this criterion is met. The addition of the half entrance on the south side of Wilshire Boulevard would have significant pedestrian safety benefits, and is highly recommended for inclusion as a project feature. The options to improve pedestrian safety to cross Wilshire Boulevard would require reductions in roadway capacity at an intersection that handles among the most traffic in the entire City of Los Angeles.

7.3 Westwood/UCLA Station Off-Street Station

7.3.1 Station Entrance Location

The entrances for this station option would be located on the northwest corner of the Wilshire Boulevard and Gayley Avenue intersection, as well as the northeast corner of the Wilshire Boulevard and Veteran Avenue intersection. The entrance on the northwest corner of Wilshire Boulevard and Gayley Avenue would be oriented toward the north and would consist of two stairs and two escalators. A station elevator would be located to the west of the station entrance. The entrance on the northeast corner of Wilshire Boulevard and Veteran Avenue would be oriented toward the west and would consist of two stairs and escalators. A station elevator would be located south of the entrance. Knockout panels would be located on the south side of the station box near the southeast corner of

Wilshire Boulevard and Veteran Avenue and on the north side of the station box, just south of the current location of the UCLA police department building.

7.3.2 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be on Wilshire Boulevard, Veteran Avenue, and Galey Avenue. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

7.3.2.1 Sidewalks

See above discussion for the Westwood/UCLA Station On-Street Entrance Option. Sidewalks are continuous along Kinross Avenue and the east side of Veteran Avenue with few interruptions to the pedestrian path of travel due to driveways. There is no sidewalk on the west side of Veteran Avenue.

7.3.2.2 Street Cross-Sections

See discussion above for Westwood/UCLA Station On-Street Entrance Option. North of Kinross Avenue, Veteran Avenue has a 68-foot curb-to-curb cross section with two travel lanes in each direction and a southbound left turn lane. South of Kinross, Veteran Avenue has a 78-foot curb-to-curb cross section with two travel lanes in each direction and a northbound right turn lane. A southbound left turn lane begins just south of Kinross Avenue.

Kinross Avenue has a 66-foot curb-to-curb cross section with three lanes in each direction. Eastbound lanes include two travel lanes and a left turn lane. Westbound lanes end at Veteran Avenue with two left turn lanes and a single right turn lane.

7.3.2.3 Crossings

Table 7-2 summarizes the characteristics of the intersections contained within the station vicinity. The intersections of Westwood Boulevard and Wilshire Boulevard, and Westwood Boulevard and Lindbrook Drive are beyond 500 feet from both of the entrances for this station option.

7.3.3 Proposed Project Features

In addition to those identified above under the Westwood/UCLA On-Street Entrance Option, the following sections summarize the access improvement measures that are proposed as project features.

7.3.3.1 Bus Access

Bus Stop Relocation

To minimize the number of streets bus riders transferring between bus and subway must cross, the following bus stop relocations are recommended:

- Any bus stops for lines that would likely have significant transfers to subway should relocate their stops at Westwood Boulevard to Galey Avenue with a near-side bus stop for eastbound buses, and a far-side bus stop for westbound buses. Lines that are likely to have fewer transfers to subway, or directly serve uses on Westwood Boulevard should not be relocated. Parking is currently prohibited on both sides of Wilshire Boulevard at Galey Avenue, so shifts in bus stop

locations would not affect the parking supply. Bus stops in this location could impede traffic flow, but would reduce impediments to traffic flow at Westwood Boulevard.

- The relocation of bus stops will require coordination and approval from Metro Bus Operations, as well as Big Blue Bus, Culver City Bus, Antelope Valley Transit Authority, and LADOT. Metro does not have the authority to relocate bus stops for other agencies, but Metro should coordinate with both agencies to evaluate the benefits and trade-offs associated with relocating these stops.

Table 7-2: Pedestrian Crossing Facilities Westwood/UCLA Station Off-Street Entrance Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Veteran Avenue/ Kinross Avenue	Signalized	Countdown. Push button actuated across east leg.	White, parallel, 17-foot wide crosswalk installed on east leg. Veteran Avenue crossing prohibited. No advance stop bars installed.	Diagonal curb ramps installed on northeast and southeast corners. Truncated domes not installed. Adequate landings/clear zones provided on northeast and southeast corners.
Veteran Avenue/ Wilshire Boulevard	Signalized	Countdown. Push button actuated across Wilshire Boulevard, pre-timed across Veteran Avenue	White parallel installed on all legs, 15 feet wide on the east, west, and south legs, 20 feet wide on north leg	Diagonal curb ramps installed on all corners. Truncated domes not installed. Adequate landings/clear zones provided on all corners.
Wilshire Boulevard/ Galey Avenue	See discussion above for Westwood/UCLA On-Street Entrance Option			
Lindbrook Drive/ Galey Avenue	See discussion above for Westwood/UCLA On-Street Entrance Option			
Kinross Avenue/ Gayley Avenue	Signalized.	Countdown. Pre-timed across all legs.	White, parallel 16-foot wide crosswalks installed on all legs. No medians in or advance stop bars installed.	Diagonal curb ramps installed on all corners with adequate landings/clear zones. Truncated domes not installed.

Source: Fehr and Peers, 2011

7.3.4 Optional Access Enhancements

Optional access enhancements identified above under the Westwood/UCLA On-Street Entrance Option, apply to this entrance option.

8.0 WESTWOOD/VA HOSPITAL

There are two entrance options for the Westwood/VA Hospital Station, one north of Wilshire Boulevard and the other south of Wilshire Boulevard. Both are located close enough together that there would be no major differences between the two stations for the purposes of evaluating station circulation. Therefore, they are presented together in one section.

8.1 Station Entrance Location North Entrance Option

The entrance for this station option would be located along the north side of Wilshire Boulevard, just west of Bonsall Avenue and south of the station box on the Bonsall level. The station entrance would be oriented to the east and consist of two sets of stairs and escalators. Elevators would be located to the west of the station entrance. As with the South station, to accommodate the grade separation at this site, stairs, escalators, and elevators connecting the Wilshire level and the Bonsall level would be located on both the north and south sides of Wilshire Boulevard. One set of stairs and escalators and an elevator would be located to the east of the entrance on the north side of Wilshire Boulevard. A second set of stairs and escalators and an elevator would be located on the south side of Wilshire Boulevard.

8.2 Station Entrance Location South Entrance Option

The entrance for this station option would be located on the south side of Wilshire Boulevard at the Bonsall level, beneath the bus drop-off area to the north of the VA Hospital parking lot. The entrance would be oriented to the west and would consist of two sets of stairs and escalators. To accommodate the grade separation at this site, additional stairs, escalators, and elevators connecting the Wilshire level and the Bonsall level would be located on both the north and south sides of Wilshire Boulevard. A set of elevators south of the entrance would connect the Wilshire level, the Bonsall level, and the station concourse level. A second set of stairs and escalators just south of the elevators and the entrance would connect the Bonsall level and the Wilshire level. Two sets of stairs and escalators as well as an elevator would be located on the north side of Wilshire Boulevard, connecting the Wilshire level and Bonsall level.

8.2.1 Pedestrian Access

The primary pedestrian travel corridors to the station entrance would be Wilshire Boulevard and Bonsall Avenue. The following evaluates the conditions along the primary pedestrian travel corridors within the station vicinity.

8.2.1.1 Sidewalks

Sidewalks are located along the Wilshire Boulevard access ramps that drop down from Wilshire Boulevard to intersect with Bonsall Avenue. For the South station option, the sidewalk lines the south curb face of the southern access ramp, and the northern curb face of the northern access ramp. Bonsall Avenue has sidewalks on both sides of the street, including under the Wilshire Boulevard overpass. Sidewalks generally range from 8 feet to 10 feet in width, meeting the minimum for the Design Criteria, but falling short of the preferred width. Six-foot-wide sidewalks are found in some locations, which do not meet the Design Criteria minimums.

8.2.1.2 Street Cross-Sections

The Wilshire Boulevard access ramps have curb-to-curb cross-sections of approximately 30 feet at their widest point, where they flare out to have a left and a right turn lane, otherwise, the access ramps are one lane in each direction. Bonsall Avenue has a curb-to-curb cross section of approximately 36 feet. On-street parking is not allowed on the Wilshire Boulevard access ramps or on Bonsall Avenue.

8.2.1.3 Crossings

Table 8-1 below summarizes the characteristics of the one intersection contained within the station vicinity.

The following assesses the crossings in the vicinity of the Westwood/VA Hospital Station according to Metro Rail Design Criteria:

- *Pedestrian access shall be as direct and safe as possible*—Escalators will be constructed that would provide convenient access to the Bonsall level from the Wilshire Boulevard level, so this criterion is met. Crossings adjacent to the entrance are unsignalized, but traffic volumes are low, so this would not affect pedestrian safety.

Table 8-1: Pedestrian Crossing Facilities Westwood/VA Hospital Station South Option

Intersection	Traffic Controls	Pedestrian Control Type	Crosswalk Type/Size/Median	Curb Ramps
Wilshire Boulevard Eastbound Access Ramp/ Bonsall Avenue	Stop controlled on north, south, and west approaches.	None.	10-foot wide diagonal hatched white striped crosswalks on west and south legs. Stop bars installed on north, south, and west approaches.	Diagonal curb ramps installed on the southwest, northwest, and southeast corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps. No curb ramps are provided on the northeast corner.
Wilshire Boulevard Westbound Access Ramp/ Bonsall Avenue	Stop controlled on north, south, and east approaches.	None.	10-foot wide diagonal hatched white striped crosswalks on west and north legs. Stop bars installed on north, south, and east approaches.	Diagonal curb ramps installed on the southwest, northwest, and northeast corners. Truncated domes not installed. Adequate landings/clear zones provided on all ramps. No curb ramps are provided on the southeast corner.

Source: Fehr and Peers, 2011

- *Crossings shall be designed in accordance with ADAAG*—Adequate landings/clear zones are provided at all curb ramps. Truncated domes are not installed, so this criterion is not met.
- *Pedestrian crossings at streets wider than four lanes should have pedestrian refuge*—All roads within the station vicinity are less than four lanes wide, so this criterion is met.
- *Pedestrian crosswalks should be emphasized with change in paving material, texture, or color*—Decorative patterned crosswalks are not installed, so this criterion is not met.
- *Pedestrian crosswalks shall have good visibility for both pedestrians and drivers*—There are no major grade changes, curves in the roadways, landscaping, or other impediments that would block visibility of the crosswalks, so this criterion is met.

- *Crosswalks should be a minimum of 10 feet, but preferably 12 feet in width*—Crosswalks are 10 feet so this criterion is met.

8.2.2 Bicycle Access

8.2.2.1 Station Adjacent Existing or Near-Term Planned Bicycle Facilities

There are no existing bicycle facilities within 500 feet of the proposed station entrance. An existing bicycle path/route is installed on Ohio Avenue, 2,100 feet to the south.

The following bicycle facilities have been identified for implementation in the next five years in the adopted City of Los Angeles 2010 Bicycle Plan:

- Wilshire Boulevard (bicycle lanes)

8.2.2.2 Station Adjacent Long-Term Planned Bicycle Facilities

No additional bicycle facilities, aside from those identified above are planned for longer term implementation in the adopted City of Los Angeles 2010 Bicycle Plan.

8.2.3 Bus Access

8.2.3.1 Bus Stop Location

The westbound bus stops for Metro Rapid Line 720, Metro Line 20 and Big Blue Bus Line 3 are on the north side of Wilshire Boulevard, in a bus-only turn out on the Wilshire Boulevard overpass of Bonsall Avenue.

The westbound bus stop for Big Blue Bus Line 2 is located at the intersection of Bonsall Avenue and the westbound Wilshire Boulevard access ramp.

The eastbound bus stops for Metro Rapid Line 720, Metro Line 20 and Big Blue Bus Lines 2 and 3 are on the south side of Wilshire Boulevard, in a bus-only turn out on the Wilshire Boulevard overpass of Bonsall Avenue.

Northbound and southbound stops for Big Blue Bus Line 4 are located on Bonsall Avenue, north and south of the Wilshire Boulevard access ramps.

8.2.3.2 Shuttle Services

Shuttle service does not operate in the station vicinity.

8.2.4 Auto Access

A variety of VA parking lots are provided near the proposed entrance. VA parking lots are not for public use (including future subway riders). They are reserved for VA use only.

8.2.5 Proposed Project Features

The following sections summarize the access improvement measures that are proposed as project features.

8.2.5.1 Pedestrian Access

Sidewalks

Widen the sidewalks on Bonsall Avenue to a minimum width of 12 feet.

Crossings

Based on the Metro Rail Design Criteria, the following enhancements to the existing crossings are recommended:

- Install a 12-foot wide zebra crosswalk, or other high visibility crosswalk treatment appropriate for unsignalized intersections, on all four legs of the intersections of Bonsall Avenue and both the eastbound and westbound Wilshire Boulevard access ramps. Install curb ramps on the corners that are missing. Install stop bars at all approaches.
- At both Bonsall/access ramp intersections install, and/or upgrade ramps on all four corners to current ADA standards, including meeting landing and clear zone requirements and installing truncated domes at curb ramps.

8.2.5.2 Bicycle Access

Bicycle Network

No expansions to the bicycle network are recommended as project features. Bicycle network improvements cannot be implemented by Metro because they require action by the relevant local jurisdiction. Therefore no bicycle network improvements are recommended as project features. However, they are recommended in the optional access enhancements section, to be considered by the local jurisdiction with coordination provided by Metro.

Bicycle Parking

Station Bicycle Parking Demand

Because it is a terminus station, the Westwood/VA Hospital Station would likely experience greater bicycle parking demand, than would otherwise be generated by the uses on the campus of the VA. Though bicycle network connectivity is limited, there would likely be parking demand generated by riders who would bike to the station from the west.

Station Bicycle Parking Supply

Based on the higher forecast ridership for the station and because it would be the terminus, meeting Metro's minimum standards would likely be insufficient to meet the demand for bicycle parking at this station. Based on parking supply at existing terminal stations on the Red/Purple Lines, minimum parking for 50 bicycles should be provided, but to the extent feasible, as close to the Metro Bicycle Program goal of providing spaces at 1.3 percent of daily station boardings should be implemented. Space to accommodate expanded bicycle parking in the future should be provided in the station design.

Provision of 101 spaces would meet the Metro Bicycle Program goal of providing bicycle parking equivalent to 1.3 percent of daily station boardings. If this target is provided, around 76 spaces (75 percent) can be for long term parking and 25 (25 percent) spaces can be provided for short term parking.

Bicycle Parking Configuration and Footprint

A total of 76 spaces of long-term bicycle parking could be accommodated in a 380 to 608-square-foot footprint in a secured room or up to a 3,200-square-foot footprint if only lockers are provided. As the station plans progress through the design process, the configuration of bicycle parking should be determined based on convenience to subway riders, and any space constraints on the station site. Given that it would be beneficial to start with more bicycle parking at project outset, a more compact footprint in a secured bicycle room is recommended.

Bicycle Parking Site Location

Location of the bicycle parking should follow the guidelines discussed above under the Wilshire/La Brea Station, and be located as close as possible to the station entrance on the Bonsall level. As with other stations, flexible space should be provided to allow for the expansion of bicycle parking as demand dictates. As a terminus, this station should be considered for enhanced bicycle facilities, consistent with the clean mobility center/bicycle station as detailed in the Design Guidelines.

Bicycle Share/Rental

No bicycle share/rental programs are recommended as project features because the demand from subway riders alone will not be sufficient enough to support such a service. A bicycle share program is discussed below as an optional access enhancement should the VA decide to implement such a service on its campus.

8.2.5.3 Bus Access

Bus Stop Relocation

Because escalators will provide easy connections from the bus turnouts on Wilshire Boulevard to the Bonsall level, transfers between bus and subway will be relatively convenient. Accordingly, no bus stop relocations are recommended.

Accommodation of Bus Stopping Bays

There is sufficient space in the existing bus turnouts to accommodate future bus levels as detailed in the *Feeder Service Operations Plan*.

Shuttle Services

No new shuttle services are recommended as project features, because areas to the west are already well served by bus transit routes.

8.2.5.4 Auto Access

Because the Design Criteria identify auto access as a lower priority than pedestrian, bicycle, and bus access, auto access improvements are only included as optional access enhancements.

8.2.6 Optional Access Enhancements

The following sections summarize optional access enhancements that are recommended to further improve station access.

8.2.6.1 Pedestrian Access

Crossings

As a best practice, provide directional curb ramps at both Bonsall Avenue intersections with the Wilshire Boulevard access ramps.

8.2.6.2 Bicycle Access

Bicycle Network

Metro should coordinate with the City of Los Angeles and the County of Los Angeles to determine the best way to maximize bicycle connectivity to the station depending on what future bicycle facilities, if any, will be constructed in the station vicinity. However direct and convenient (not circuitous) bicycle connections to the west are critical because this is a terminus station. Though likely infeasible, Metro should attempt to coordinate with the VA on developing a bicycle route through the campus. These connections would also provide opportunities to link up to north-south bike routes and lanes.

The following improvement options should be considered in coordination with the City of Los Angeles, which would be the lead agency for the construction of any bicycle network improvements:

- Stripe a bicycle lane between the station entrance and Federal Avenue/San Vicente Boulevard on Wilshire Boulevard.
- The constraints in striping bicycle lanes on Wilshire Boulevard have been noted at other stations. Alternatively, focus on enhancing bicycle connectivity to Ohio Avenue (via Bonsall Avenue on VA property) and San Vicente Boulevard (via Eisenhower Avenue on VA property).
- Stripe a bicycle lane on Federal Avenue between Wilshire Boulevard and Ohio Avenue.
- Designate a bicycle route on Texas Avenue from Federal Avenue to Westgate Avenue; connects to existing bike route on Texas Avenue.
- Stripe a bicycle lane on San Vicente Boulevard from Wilshire Boulevard to Bundy Drive; connects to existing bicycle lane on San Vicente Boulevard.

Bicycle Parking

No additional bicycle parking enhancements are recommended beyond those discussed above as potential project features.

Bicycle Share/Rental

Metro should coordinate with the VA to determine its interest in enhancing bicycle circulation on the campus through the introduction of a bicycle sharing service. Bicycle sharing, would not be recommended for this station location, unless the VA expresses interest in participating. The greater area would better be served by bicycle sharing services located in Westwood and West LA.

8.2.6.3 Bus Access

Bus Stop Relocation

No additional bus stop relocations are proposed beyond those identified above as project features.

Shuttle Services

Feeder bus service from the west would be an extremely important consideration for this station, since it is a terminus. To the extent that it would not be duplicative of other service, a shuttle could be considered to serve the Brentwood and Santa Monica areas. However, these areas are well served by existing Metro and Big Blue Bus service that could easily interface with this station, so it would likely not be an essential service to implement.

8.2.6.4 Auto Access

Passenger Drop-Offs Areas

Pick-up/drop-off activity is expected to be heaviest at this station since it is a terminus station. Adequate station access, with easy to navigate ingress and egress and a designated pick-up/drop off zone is recommended. Based on the current design for the station, passenger drop-off areas would be designated on the westbound access ramp. Passenger drop-off areas would not be designated on the eastbound bus turnout or access ramp due to space constraints, but passenger drop-off activities are expected to occur informally in both locations. Because of limited traffic on Bonsall Avenue, it is anticipated that this would not impact any other modes. However, it would draw more traffic to the VA campus.

Taxi

Due to the limited non-auto connectivity at this station and the fact that this will be a terminus for the subway extension, taxi service could be utilized, and could be located in the passenger drop-off areas as described above.

Shared Vehicles/Electric Vehicle Charging Stations

Subway riders are unlikely to be able to support a car sharing service on their own, but because this is a terminus station, and has limited non-auto connectivity, shared vehicles could be considered for placement here.

9.0 SUMMARY OF RECOMMENDATIONS

This section presents tables that summarize the recommended project features and optional access enhancements recommended for each of the stations.

Table 9-1: Recommended Project Features—Wilshire/La Brea Station

Intersection	Wilshire/La Brea Station	
	North Entrance	South Entrance
Sidewalks		
Widen sidewalks around station plaza, construction laydown area, and any affected by station box construction to 12 feet min	Recommended	Recommended
Replace landscaped greenway with sidewalk within 500 feet of station entrance	N/A	N/A
Repair sidewalk damage	N/A	N/A
Crossings Affected by Station Box Construction		
Upgrade to current ADA standards, including installation of truncated domes	Recommended	Recommended
Install highly visible decorative crosswalks, with advanced stop bars.	Recommended	Recommended
Adjust pedestrian phase to account for 3.5 feet per second crossing time consistent with 2009 Federal MUTCD	Recommended	Recommended
Install high visibility crosswalk treatment appropriate for unsignalized intersections	N/A	N/A
Install pedestrian no crossing signs/barriers	N/A	N/A
Bicycle Parking	Meet Design Criteria of 20 spaces at a minimum, with potential for 53 spaces if station design allows. If possible, reserve a footprint of 200-300 square feet or more. Locate adjacent to entrance in station plaza.	Meet Design Criteria of 20 spaces at a minimum, with potential for 53 spaces if station design allows. If possible, reserve a footprint of 200-300 square feet or more. Locate adjacent to entrance in station plaza.
Bus Stop Relocation	<ul style="list-style-type: none"> Relocate eastbound Metro Rapid Line 720 bus stop to a near-side stop (west of La Brea Avenue). Relocate northbound Metro Lines 212/312 bus stops to a far-side stop (north of Wilshire Boulevard). 	<ul style="list-style-type: none"> Relocate eastbound Metro Rapid Line 720 bus stop to a near-side stop (west of La Brea Avenue). Relocate southbound Metro Lines 212/312 bus stops to a far-side stop (south of Wilshire Boulevard).
Shuttle Services	N/A	N/A

Source: Fehr and Peers, 2011

N/A = Not applicable or not recommended for this entrance option

Table 9-2: Optional Access Enhancements—Wilshire/La Brea Station

Intersection	Wilshire/La Brea Station	
	North Entrance	South Entrance
Sidewalks		
Widen sidewalks to 15 feet on blocks immediately adjacent to station entrance, construction laydown area	Recommended	Recommended
Widen sidewalks within 500 feet of entrance to 12 feet min	N/A	Consider on 8th west of La Brea
Crossings		
Install directional curb ramps at intersections affected by station box construction	Recommended. Prioritize at La Brea/Wilshire intersection	Recommended. Prioritize at La Brea/Wilshire intersection
If pedestrian volumes warrant, install leading pedestrian interval at intersections critical for station access	Consider at La Brea/Wilshire intersection	Consider at La Brea/Wilshire intersection
Install audible pedestrian signals	Consider at La Brea/Wilshire intersection	Consider at La Brea/Wilshire intersection
Upgrade intersections within 500 feet to current ADA standards	Recommended	Recommended
Install curb extensions	Recommended if feasible	Recommended if feasible
Extend medians to create/enhance pedestrian refuge	Recommended if feasible	Recommended if feasible
Add mid-block crossings	Consider for La Brea north of Wilshire	Consider for La Brea north of Wilshire
Bicycle Network	<ul style="list-style-type: none"> • Consider bicycle lanes on Wilshire, La Brea • Consider bicycle friendly street on Cochran, Sycamore 	<ul style="list-style-type: none"> • Consider bicycle lanes on Wilshire, La Brea • Consider bicycle friendly street on Cochran, Sycamore
Bicycle Share Rental	Only consider in future if demand warrants	Only consider in future if demand warrants
Bus Stops	Install enhanced bus stops	Install enhanced bus stops
Shuttle Services	N/A	N/A
Kiss-and-Ride	Could be accommodated in LADOT lot accessed off Detroit	Could be accommodated in LADOT lot accessed off Detroit
Taxi	Could be accommodated in LADOT lot accessed off Detroit	Could be accommodated in LADOT lot accessed off Detroit
Car Share	Only consider in future if demand warrants	Only consider in future if demand warrants

Source: Fehr and Peers, 2011

Table 9-3: Recommended Project Features—Wilshire/Fairfax and Wilshire/La Cienega Stations

Intersection	Wilshire/Fairfax Station			Wilshire/La Cienega Station
	Johnie's Entrance Option	LACMA Entrance Option	South of Wilshire Boulevard Entrance Option	
Sidewalks				
Widen sidewalks around station plaza, construction laydown area, and any affected by station box construction to 12-foot min	Recommended	Recommended	Recommended	Recommended
Replace landscaped greenway with sidewalk within 500 feet of station entrance	Recommended on Fairfax south of Wilshire Boulevard	Recommended on Fairfax south of Wilshire Boulevard	Recommended on Fairfax south of Wilshire Boulevard	Recommended on La Cienega north of Wilshire Boulevard
Repair sidewalk damage	Recommended	N/A	N/A	N/A
Crossings Affected By Station Box Construction				
Upgrade to current ADA standards, including installation of truncated domes	Recommended	Recommended	Recommended	Recommended
Install highly visible decorative crosswalks, with advanced stop bars.	Recommended	Recommended	Recommended	Recommended
Adjust pedestrian phase to account for 3.5 feet per second crossing time consistent 2009 Federal MUTCD	Recommended	Recommended	Recommended	Recommended
Install high visibility crosswalk treatment appropriate for unsignalized intersections	Recommended on west leg of Fairfax/Orange intersection and south leg of Orange Grove/Wilshire intersection	Recommended on south leg of Orange Grove/Wilshire intersection	Recommended on west leg of Fairfax/Orange intersection and south leg of Orange Grove/Wilshire intersection	Recommended on north and south leg of Hamilton/Wilshire intersection
Install pedestrian no crossing signs/barriers	N/A	Install on Wilshire Boulevard at Orange Grove	Recommended on west leg of Fairfax/Orange intersection and south leg of Orange Grove/Wilshire intersection	N/A

**Table 9-3: Recommended Project Features—Wilshire/Fairfax and Wilshire/La Cienega Stations
(continued)**

Intersection	Wilshire/Fairfax Station			Wilshire/La Cienega Station
	Johnie's Entrance Option	LACMA Entrance Option	South of Wilshire Boulevard Entrance Option	
Bicycle Parking	Exceed Design Criteria, provide minimum of 32 spaces, with potential for 80 spaces if station design allows. If possible, reserve a footprint of 300-480 square feet or more. Locate adjacent to entrance in station plaza.	Exceed Design Criteria, provide minimum of 32 spaces, with potential for 80 spaces if station design allows. If possible, reserve a footprint of 300-480 square feet or more. Work with LACMA to locate on LACMA property or in LACMA West.	Exceed Design Criteria, provide minimum of 32 spaces, with potential for 80 spaces if station design allows. If possible, reserve a footprint of 300-480 square feet or more. Locate adjacent to entrance in station plaza.	Meet Design Criteria of 20 spaces at a minimum, with potential for 86 spaces if station design allows. If possible, reserve a footprint of 320-512 square feet or more. Locate adjacent to entrance in station plaza.
Bus Stop Relocation	<ul style="list-style-type: none"> Relocate eastbound and westbound Metro Rapid Line 720 and Metro Line 20 bus stops west of Fairfax Avenue. Relocate the southbound Metro Rapid Line 780 and Metro 217 bus stops to a near side stop north of Wilshire Boulevard. 	Relocate the southbound Metro Rapid Line 780 and Metro 217 bus stops to the north of Wilshire Boulevard.	Relocate the northbound Metro Rapid Line 780 and Metro 217 bus stops to near side stops south of Wilshire Boulevard.	<ul style="list-style-type: none"> Relocate westbound Metro Rapid Line 720 and Metro Line 20 bus stops to near side stops east of La Cienega Boulevard. Relocate the southbound Metro Rapid Line 705 and the northbound Metro Line 105 bus stops to the north of Wilshire Boulevard.
Shuttle Services	N/A	N/A	N/A	N/A

Source: Fehr and Peers, 2011

Table 9-4: Optional Access Enhancements—Wilshire/Fairfax and Wilshire/La Cienega Stations

Intersection	Wilshire/Fairfax Station			Wilshire/La Cienega Station
	Johnie's Entrance Option	LACMA Entrance Option	South of Wilshire Boulevard Entrance Option	
Sidewalks				
Widen sidewalks to 15 feet on blocks immediately adjacent to station entrance, construction laydown area	Recommended	Recommended	Recommended	Recommended
Widen sidewalks within 500 feet of entrance to 12-foot min	Recommended	Recommended	Recommended	Recommended
Crossings				
Install directional curb ramps at intersections affected by station box construction	Recommended. Prioritize at Fairfax/Wilshire intersection	Recommended. Prioritize at Fairfax/Wilshire intersection	Recommended. Prioritize at Fairfax/Wilshire intersection	Recommended. Prioritize at La Cienega/Wilshire intersection
If pedestrian volumes warrant, install leading pedestrian interval at intersections critical for station access	Consider at Fairfax/Wilshire intersection	Consider at Fairfax/Wilshire intersection	Consider at Fairfax/Wilshire intersection	Consider at La Cienega/Wilshire intersection
Install audible pedestrian signals	Consider at Fairfax/Wilshire intersection	Consider at Fairfax/Wilshire intersection	Consider at Fairfax/Wilshire intersection	Consider at La Cienega/Wilshire intersection
Upgrade intersections within 500 feet to current ADA standards	Recommended	Recommended	Recommended	Recommended
Install curb extensions	Recommended if feasible	Recommended if feasible	Recommended if feasible	Recommended if feasible
Extend medians to create/enhance pedestrian refuge	Recommended if feasible	Recommended if feasible	Recommended if feasible	Recommended if feasible
Add mid-block crossings	N/A	N/A	N/A	Consider a pedestrian crossing on Wilshire, west of La Cienega, possibly at Stanley

**Table 9-4: Optional Access Enhancements—Wilshire/Fairfax and Wilshire/La Cienega Stations
(continued)**

Intersection	Wilshire/Fairfax Station			Wilshire/La Cienega Station
	Johnie's Entrance Option	LACMA Entrance Option	South of Wilshire Boulevard Entrance Option	
Bicycle Network	<ul style="list-style-type: none"> Consider bicycle lanes on Wilshire, Fairfax Consider bicycle link on Hayworth 	<ul style="list-style-type: none"> Consider bicycle lanes on Wilshire, Fairfax Coordinate with LACMA to determine the feasibility of a short bicycle route through LACMA property that would link station with proposed bicycle route on 6th 	Consider bicycle lanes on Wilshire, Fairfax	<ul style="list-style-type: none"> Consider bicycle lanes on Wilshire, San Vicente Coordinate with Beverly Hills to designate north-south bicycle route
Bicycle Share Rental	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants
Bicycle Share Rental	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants
Bus Stops	Install enhanced bus stops	Install enhanced bus stops	Install enhanced bus stops	Install enhanced bus stops
Shuttle Services	Coordinate with Farmer's Market/Grove to consider private-funded shuttle from station	Coordinate with Farmer's Market/Grove to consider private-funded shuttle from station	Coordinate with Farmer's Market/Grove to consider private-funded shuttle from station	Coordinate with Beverly Center/Cedars-Sinai to consider private-funded shuttle from station
Kiss-and-Ride	Could be accommodated in Johnie's parking lot	Could be accommodated in Johnie's parking lot	Could be accommodated in Johnie's parking lot	Likely could not be accommodated either on-street or off-street
Taxi	Could be accommodated in Johnie's parking lot	Could be accommodated in Johnie's parking lot	Could be accommodated in Johnie's parking lot	Relocate existing taxi stand in front of Lawry's to the south to serve station
Car Share	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants

Source: Fehr and Peers, 2011

Table 9-5: Recommended Project Features—Wilshire/Rodeo Station

Intersection	Wilshire/Rodeo Station		
	Ace Gallery Entrance Option	Bank of America Entrance Option	Union Bank Entrance Option
Sidewalks			
Widen sidewalks around station plaza, construction laydown area, and any affected by station box construction to 12-foot min	N/A	Recommended	Recommended
Replace landscaped greenway with sidewalk within 500 feet of station entrance	N/A	N/A	N/A
Repair sidewalk damage	N/A	N/A	N/A
Crossings Affected by Station Box Construction			
Upgrade to current ADA standards, including installation of truncated domes	Recommended	Recommended	Recommended
Install highly visible decorative crosswalks, with advanced stop bars.	Recommended	Recommended	Recommended
Adjust pedestrian phase to account for 3.5 feet per second crossing time consistent 2009 Federal MUTCD	Recommended	Recommended	Recommended
Install high visibility crosswalk treatment appropriate for unsignalized intersections	Recommended on south leg of Reeves/Wilshire intersection	N/A	N/A
Install pedestrian no crossing signs/barriers	N/A	N/A	N/A
Bicycle Parking	If possible given site constraints, meet Design Criteria minimum of 20 spaces, using rack spaces as needed in-lieu of lockers. If possible feasible, reserve a footprint of 250-360 square feet or more. Locate adjacent to entrance in station plaza.	Space constraints are severe, so Design Criteria minimum of 20 spaces should be targeted, but may not be feasible.	Meet Design Criteria of 20 spaces at a minimum, with potential for 86 spaces if station design allows. If possible, reserve a footprint of 320-512 square feet or more. Locate adjacent to entrance in station plaza.
Bus Stop Relocation	<ul style="list-style-type: none"> Relocate westbound Metro Rapid Line 720 east of Beverly Drive to the Line 20 stop. Relocate the eastbound Line 20 stop east of Beverly Drive to the Rapid Line 720 stop. 	Relocate the eastbound Rapid Line 720 stop west of Beverly Drive to the near side stop shared with Line 20	Relocate the east bound Rapid Line 720 stop west of Beverly Drive to the near side stop shared with Line 20
Shuttle Services	N/A	N/A	N/A

Source: Fehr and Peers, 2011

Table 9-6: Optional Access Enhancements—Wilshire/Rodeo Station

Intersection	Wilshire/Rodeo Station		
	Ace Gallery Entrance Option	Bank of America Entrance Option	Union Bank Entrance Option
Sidewalks			
Widen sidewalks to 15 feet on blocks immediately adjacent to station entrance, construction laydown area	Recommended	Recommended	Recommended
Widen sidewalks within 500 feet of entrance to 12-foot min	N/A	N/A	N/A
Crossings			
Install directional curb ramps at intersections affected by station box construction	Recommended. Prioritize at Beverly Drive/Wilshire intersection	Recommended. Prioritize at Beverly Drive/Wilshire intersection	Recommended. Prioritize at Beverly Drive/Wilshire intersection
If pedestrian volumes warrant, install leading pedestrian interval at intersections critical for station access	Consider at Beverly Drive/Wilshire intersection	Consider at Beverly Drive/Wilshire intersection	Consider at Beverly Drive/Wilshire intersection
Install audible pedestrian signals	Consider at Beverly Drive/Wilshire intersection	Consider at Beverly Drive/Wilshire intersection	Consider at Beverly Drive/Wilshire intersection
Upgrade intersections within 500 feet to current ADA standards	Recommended	Recommended	Recommended
Install curb extensions	Recommended if feasible	Recommended if feasible	Recommended if feasible
Extend medians to create/enhance pedestrian refuge	Recommended if feasible	Recommended if feasible	Recommended if feasible
Add mid-block crossings	N/A	N/A	N/A
Bicycle Network	Coordinate with Beverly Hills to designate north-south bicycle route	Coordinate with Beverly Hills to designate north-south bicycle route	Coordinate with Beverly Hills to designate north-south bicycle route
Bicycle Share Rental	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants
Bus Stops	Install enhanced bus stops	Install enhanced bus stops	Install enhanced bus stops
Shuttle Services	N/A	N/A	N/A
Kiss-and-Ride	Could be located in alley behind station or in loading zone for 9240 Wilshire Boulevard	Likely could not be accommodated either on-street or off-street	Likely could not be accommodated either on-street or off-street
Taxi	Could be located in alley behind station or in loading zone for 9240 Wilshire Boulevard	Likely could not be accommodated either on-street or off-street	Likely could not be accommodated either on-street or off-street
Car Share	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants

Source: Fehr and Peers, 2011

Table 9-7: Recommended Project Features—Century City Station

Intersection	Century City Station		
	Constellation Boulevard Northeast Entrance Option	Constellation Boulevard Southwest Entrance Option	Santa Monica/Century Park East Entrance Option
Sidewalks			
Widen sidewalks around station plaza, construction laydown area, and any affected by station box construction to 12-foot min	Recommended	Recommended	Recommended
Replace landscaped greenway with sidewalk within 500 feet of station entrance	N/A	N/A	N/A
Repair sidewalk damage	N/A	N/A	N/A
Crossings Affected By Station Box Construction			
Upgrade to current ADA standards, including installation of truncated domes	Recommended	Recommended	Recommended
Install highly visible decorative crosswalks, with advanced stop bars.	Recommended	Recommended	Recommended Install crosswalk on the west leg of Avenue of the Stars/Century Park East intersection if feasible.
Adjust pedestrian phase to account for 3.5 feet per second crossing time consistent 2009 Federal MUTCD	Recommended	Recommended	Recommended
Install high visibility crosswalk treatment appropriate for unsignalized intersections	N/A	N/A	N/A
Install pedestrian no crossing signs/barriers	N/A	N/A	N/A
Bicycle Parking	Exceed Design Criteria, provide minimum of 35 spaces, with potential for 111 spaces if station design allows. If possible, reserve a footprint of 420-672 square feet or more. Locate adjacent to entrance in station plaza.	Entrance is more constrained than Northeast Entrance Option. May not be possible without coordinating with Century Plaza Hotel.	Entrance is more constrained than Northeast Entrance Option. Parking would need to be provided in a very compact footprint if it is to be located close to the station entrance. Alternatively, bicycle parking facilities could be located in adjacent developments.

Table 9-7: Recommended Project Features—Century City Station (continued)

Intersection	Century City Station		
	Constellation Boulevard Northeast Entrance Option	Constellation Boulevard Southwest Entrance Option	Santa Monica/ Century Park East Entrance Option
Bus Stop Relocation	Relocate the westbound Big Blue Bus Line 5 and Santa Clarita Bus stop on Constellation Boulevard to a near side stop in front of the station entrance on Constellation Boulevard east of Avenue of the Stars.	<ul style="list-style-type: none"> Relocate the bus stop for Lines 16/316, 28, and Antelope Valley Transit Authority Line 786 to a near side stop on Avenue of the stars south of Constellation Boulevard. Relocate the eastbound Big Blue Bus Line 5, Culver City Bus Line 3, and Antelope Valley Transit Authority Line 786 to a near side stop in front of the station entrance on Constellation Boulevard west of Avenue of the Stars. 	<ul style="list-style-type: none"> Relocate far side eastbound Line 4 bus stop to a near side bus stop west of Century Park East if feasible. Relocate Metro Rapid Lines 704 and 728 bus stops from Avenue of the Stars to Century Park east to facilitate convenient transfer.
Shuttle Services	N/A	N/A	N/A

Source: Fehr and Peers, 2011

Table 9-8: Optional Access Enhancements—Century City Station

Intersection	Century City Station		
	Constellation Boulevard Northeast Entrance Option	Constellation Boulevard Southwest Entrance Option	Santa Monica/Century Park East Entrance Option
Sidewalks			
Widen sidewalks to 15 feet on blocks immediately adjacent to station entrance, construction laydown area	Recommended	Recommended	Recommended
Widen sidewalks within 500 feet of entrance to 12-foot min	N/A	N/A	N/A
Crossings			
Install directional curb ramps at intersections affected by station box construction	Recommended. Prioritize at Avenue of the Stars/Constellation intersection.	Recommended. Prioritize at Avenue of the Stars/Constellation intersection.	Recommended. Prioritize at Century Park East/Santa Monica intersection.
If pedestrian volumes warrant, install leading pedestrian interval at intersections critical for station access	Consider at Avenue of the Stars/Constellation intersection.	Consider at Avenue of the Stars/Constellation intersection.	Consider at Century Park East/Santa Monica intersection
Install audible pedestrian signals	Consider at Avenue of the Stars/Constellation intersection.	Consider at Avenue of the Stars/Constellation intersection.	Consider at Century Park East/Santa Monica intersection
Upgrade intersections within 500 feet to current ADA standards	Recommended	Recommended	Recommended
Install curb extensions	Recommended if feasible	Recommended if feasible	Recommended if feasible
Extend medians to create/enhance pedestrian refuge	Recommended if feasible	Recommended if feasible	Recommended if feasible
Add mid-block crossings	N/A	N/A	N/A
Bicycle Network	Consider bicycle lanes on Avenue of the Stars	Consider bicycle lanes on Avenue of the Stars	Consider bicycle lanes on Century Park East
Bicycle Share Rental	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants
Bus Stops	Install enhanced bus stops.	Install enhanced bus stops.	Install enhanced bus stops.
Shuttle Services	Coordinate with LADOT, Century City employers to potentially implement	Coordinate with LADOT, Century City employers to potentially implement	Coordinate with LADOT, Century City employers to potentially implement

Table 9-8: Optional Access Enhancements—Century City Station (continued)

Intersection	Century City Station		
	Constellation Boulevard Northeast Entrance Option	Constellation Boulevard Southwest Entrance Option	Santa Monica/ Century Park East Entrance Option
Kiss-and-Ride	Could be located on Avenue of the Stars or Constellation Boulevard block faces adjacent to entrance	Likely not feasible on Constellation Boulevard adjacent to entrance. Could be feasible on Avenue of the Stars in front of Century Plaza Hotel.	Could be designated on west curb face of Century Park East south of bus stop
Taxi	Could be located on Avenue of the Stars or Constellation Boulevard block faces adjacent to entrance	Coordinate with the Century Plaza Hotel on placement and operation of taxis that could serve both the station and the hotel.	Likely could not be accommodated either on-street or off-street
Car Share	Only consider in future if demand warrants	Only consider in future if demand warrants	Only consider in future if demand warrants

Source: Fehr and Peers, 2011

Table 9-9: Recommended Project Features Westwood/UCLA and Westwood/VA Stations

Intersection	Westwood/UCLA Station			Westwood/VA Hospital Station
	On-Street Entrance Option	On-Street North/South Entrance Option	Off-Street Entrance Option	
Sidewalks				
Widen sidewalks around station plaza, construction laydown area, and any affected by station box construction to 12-foot min	Recommended	Recommended	Recommended	Recommended
Replace landscaped greenway with sidewalk within 500 feet of station entrance	N/A	N/A	N/A	N/A
Repair sidewalk damage	N/A	N/A	N/A	N/A
Crossings Affected By Station Box Construction				
Upgrade to current ADA standards, including installation of truncated domes	Recommended	Recommended	Recommended	Recommended. At both Bonsall/ access ramp intersections install curb ramps on corners that are missing
Install highly visible decorative crosswalks, with advanced stop bars.	Recommended	Recommended	Recommended Install crosswalk on the west leg of Avenue of the Stars/Century Park East intersection if feasible.	Recommended
Adjust pedestrian phase to account for 3.5 feet per second crossing time consistent 2009 Federal MUTCD	Recommended	Recommended	Recommended	Recommended
Install high visibility crosswalk treatment appropriate for unsignalized intersections	N/A	N/A	N/A	Install a 12 feet wide zebra crosswalk, or other high visibility crosswalk treatment appropriate for unsignalized intersections, on all four legs of the intersections of Bonsall Avenue and both the eastbound and westbound Wilshire Boulevard access ramps.

Table 9-9: Recommended Project Features Westwood/UCLA and Westwood/VA Stations (continued)

Intersection	Westwood/UCLA Station			Westwood/VA Hospital Station
	On-Street Entrance Option	On-Street North/South Entrance Option	Off-Street Entrance Option	
Install pedestrian no crossing signs/barriers	N/A	N/A	N/A	N/A
Bicycle Parking	Exceed Design Criteria, provide minimum of 50 spaces, but preferably 156 spaces if station design allows. If possible, reserve a footprint of 585-936 square feet or more. Locate adjacent to UCLA Lot 36 entrance in station plaza.	Exceed Design Criteria, provide minimum of 50 spaces, but preferably 156 spaces if station design allows. If possible, reserve a footprint of 585-936 square feet or more. Locate adjacent to UCLA Lot 36 entrance in station plaza.	Exceed Design Criteria, provide minimum of 50 spaces, but preferably 156 spaces if station design allows. If possible, reserve a footprint of 585-936 square feet or more. Locate adjacent to UCLA Lot 36 entrance in station plaza.	Exceed Design Criteria, provide minimum of 50 spaces, but preferably 101 spaces if station design allows. If possible, reserve a footprint of 380-608 square feet or more. Locate on Bonsall level adjacent to entrance in station plaza.
Bus Stop Relocation	Relocate eastbound bus stop for Metro 20/720 to the near-side of Westwood Boulevard/Wilshire Boulevard intersection to make transfers between bus/subway quicker. This recommendation minimizes number of streets needed to cross to transfer. Other bus stops in the immediate vicinity are in the correct locations for interfacing with the subway.	Relocate eastbound bus stop for Metro 20/720 to the near-side of Westwood Boulevard/Wilshire Boulevard intersection to make transfers between bus/subway quicker. This recommendation minimizes number of streets needed to cross to transfer. Other bus stops in the immediate vicinity are in the correct locations for interfacing with the subway.	Any bus stops for lines that would likely have significant transfers to subway should relocate their stops at Westwood Boulevard to Galey Avenue or have an additional stop added to serve the subway, with a near-side bus stop for eastbound buses, and a far-side bus stop for westbound buses. Lines that are likely to have fewer transfers to subway, or directly serve uses on Westwood Boulevard should not be relocated.	N/A
Shuttle Services	N/A	N/A	N/A	N/A

Source: Fehr and Peers, 2011

Table 9-10: Optional Access Enhancements—Westwood/UCLA and Westwood/VA Stations

Intersection	Westwood/UCLA Station			Westwood/VA Hospital Station
	On-Street Entrance Option	On-Street North/South Entrance Option	Off-Street Entrance Option	
Sidewalks				
Widen sidewalks to 15 feet on blocks immediately adjacent to station entrance, construction laydown area	Recommended	Recommended	Recommended	N/A
Widen sidewalks within 500 feet of entrance to 12-foot min	N/A	N/A	N/A	N/A
Crossings				
Install directional curb ramps at intersections affected by station box construction	Recommended. Prioritize at Westwood/Wilshire and Gale/Wilshire intersections.	Recommended. Prioritize at Westwood/Wilshire and Gale/Wilshire intersections.	Recommended. Prioritize at Gale/Wilshire intersection.	Recommended at both Bonsall intersections with the Wilshire access ramps.
If pedestrian volumes warrant, install leading pedestrian interval at intersections critical for station access	Consider at Westwood/Wilshire and Gale/Wilshire intersections.	Consider at Westwood/Wilshire and Gale/Wilshire intersections.	Consider at Gale/Wilshire intersection.	N/A
Install audible pedestrian signals	Consider at Westwood/Wilshire and Gale/Wilshire intersections.	Consider at Westwood/Wilshire and Gale/Wilshire intersections.	Consider at Gale/Wilshire intersection.	N/A
Upgrade intersections within 500 feet to current ADA standards	Recommended	Recommended	Recommended	N/A
Install curb extensions	Recommended if feasible	Recommended if feasible	Recommended if feasible	N/A
Extend medians to create/enhance pedestrian refuge	Recommended if feasible	Recommended if feasible	Recommended if feasible	N/A
Add mid-block crossings	N/A	N/A	N/A	N/A
Bicycle Network	<ul style="list-style-type: none"> Consider bicycle lanes on Westwood, Gayley Consider bicycle route on Midvale 	<ul style="list-style-type: none"> Consider bicycle lanes on Westwood, Gayley Consider bicycle route on Midvale 	<ul style="list-style-type: none"> Consider bicycle lanes on Gayley Consider bicycle route on Midvale 	<ul style="list-style-type: none"> Consider bicycle lanes on Wilshire, Federal, San Vicente Consider bicycle route on Texas
Bicycle Share Rental	Coordinate with UCLA and consider implementation	Coordinate with UCLA and consider implementation	Coordinate with UCLA and consider implementation	Coordinate with VA and consider implementation
Bus Stops	Install enhanced bus stops.	Install enhanced bus stops.	Install enhanced bus stops.	N/A

**Table 9-10: Optional Access Enhancements—Westwood/UCLA and Westwood/VA Stations
 (continued)**

Intersection	Westwood/UCLA Station			Westwood/VA Hospital Station
	On-Street Entrance Option	On-Street North/South Entrance Option	Off-Street Entrance Option	
Shuttle Services	Coordinate preferred locations with UCLA	Coordinate preferred locations with UCLA	Coordinate preferred locations with UCLA	
Kiss-and-Ride	If desired locate off-street area for KNR	If desired locate off-street area for KNR	If desired locate off-street area for KNR	Passenger drop-off areas would be designated near the Bonsall level on the westbound access ramp. Passenger drop-off areas would not be designated on the eastbound bus turnout or access ramp due to space constraints, but passenger drop-off activities are expected to occur informally in both locations.
Taxi	Locate in UCLA Lot 36 on temporary basis, or on-street on Lindbrook	Locate in UCLA Lot 36 on temporary basis, or on-street on Lindbrook	Locate in UCLA Lot 36 on temporary basis, or on-street on Lindbrook	Could occur in passenger drop-off areas.
Car Share	Coordinate with Zipcar to place shared cars adjacent to station entrances	Coordinate with Zipcar to place shared cars adjacent to station entrances	Coordinate with Zipcar to place shared cars adjacent to station entrances	Only consider in future if demand warrants

Source: Fehr and Peers, 2011

10.0 REFERENCES

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