Local Agency Comments and Responses
Your comment in support of the Century City Santa Monica Station and concerns about tunneling beneath homes and schools has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The Metro Board of Directors also decided to not include the Constellation South alignment between the Wilshire/Rodeo and Century City Stations as part of the LPA, but to continue to study the Constellation North and the Santa Monica Boulevard alignments. The Constellation South alignment passed beneath more residential properties than the Constellation North or Santa Monica Boulevard alignments. In addition, the Metro Board of Directors decided to not include the West or Central alignments between Century City and Westwood/UCLA as part of the LPA, but to continue to study the East alignment because the East alignment is the most direct and least expensive route between the two stations.

Safety, both during construction and eventual operations, is one of Metro’s highest priorities and is one of the key evaluation criteria in selection of the Locally Preferred Alternative (LPA). In response to the Metro Board of Director’s request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

On most transit tunnel projects, significant portions of the alignment are constructed adjacent to or beneath buildings. The LPA passes beneath homes and schools in these neighborhoods because the curve radius required for subway tunnels is much wider than that required at a typical surface street intersection. The current alignment minimizes tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes or structures within the Beverly Hills High School campus.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBMs for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an
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earthquake nor change the severity of shaking. Finally, tunnels can be constructed and operated safely in gassy grounds and oil wells do not pose an unmitigatable risk to tunneling.

The additional detailed geotechnical studies also assessed soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. These studies concluded that the predicted vibration and noise levels are within the FTA requirements and operation of the subway is not anticipated to have adverse impacts with the implementation of mitigation, including areas where the tunnels pass beneath homes and schools. During construction, low levels of noise and vibration may be experienced for a day or two as each of the two TBMs pass under a given location. In addition, as the tunnels are driven, construction trains bring supplies to and from the tunnel heading. However, these underground construction noises will also be controlled to be within Metro criteria.

The Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter. Furthermore, tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date.

These geotechnical studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site. Tunnels to the east and west of Century City pass through at least two active faults. However, there are numerous tools, designs, and construction means and methods that have been used elsewhere that can be used to safely tunnel through these fault zones.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership
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projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station and alignments and Section 8.8.4 of the Final EIS/EIR for a more detailed response to geotechnical concerns. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment regarding student and teacher safety has been noted. Please see the response above to comment number 851-1 regarding the safety of tunneling beneath homes and schools and geotechnical considerations. Please see responses below to specific concerns raised in your comment.

**Noise and Vibration**

Your comment regarding noise and vibration during operation has been noted. Subway tunnels are typically at least 50 to 70 feet below the surface to the track depth. As a result, noise and vibration are not typically noticeable at the surface. In the Beverly Hills, Century City, and Westwood areas, the proposed subway tunnels would generally be deeper than this in the areas where it would pass beneath homes and schools. For example, at Beverly Hills High School, the track depth would be 75-80 feet below the first floor of the school buildings. In Westwood, the track depth is more than 100 feet deep in most places. Since the first segment of the subway opened in 1993, Metro has received no complaints about noise or vibration due to subway operations. Additional detailed geotechnical studies were conducted during the Final EIS/EIR phase to assess soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. This included measurements at the Beverly Hills High School site and in its buildings, as well as in the residential area between the Century City and Westwood/UCLA Stations.

These studies concluded that the predicted vibration and noise levels are within the FTA requirements, and tunnel operation is not anticipated to have adverse impacts with the implementation of mitigation. Noise from operation of the LPA from such sources as station ventilation system fans, emergency ventilation fans, traction power substations, and emergency generators will be designed to meet the noise-level limits specified in Metro Rail Design Criteria and will not result in any noise impacts. There are no vibration-sensitive receivers along the LPA that are predicted to exceed the FTA ground-borne vibration criteria.

Three locations along the LPA were identified where exceedance of the FTA ground-borne noise criteria will occur due to train operations along tangent track or through crossovers, if mitigation measures are not implemented. These locations are the Wilshire Ebell Theatre, an apartment building on Wilshire Boulevard at Orange Drive, and the Saban Theatre. To mitigate the potential for ground-borne noise impacts at these three locations, the following mitigation measures will be implemented:

- **VIB-1**—High compliance direct-fixation resilient rail fasteners will be incorporated into the design of the trackwork at the Wilshire Ebell Theatre and the Saban Theatre, which will reduce ground-borne noise by 5 to 7 dBA.
- **VIB-2**—A low impact crossover such as a moveable point frog or a spring-loaded frog will be used in the design of Wilshire/La Brea No. 10 double crossover for the apartments, which will reduce ground-borne noise by 5 to 6 dBA.
With these mitigation measures, there are no vibration-sensitive receivers that are predicted to exceed the FTA ground-borne vibration criteria during operation. Mitigation measure VIB-2 was added subsequent to the Draft EIS/EIR due to the additional studies conducted during preparation of this Final EIS/EIR.

Should future underground construction be considered that would place a school building foundation closer to the tunnel, mitigation measures could be implemented to reduce ground-borne noise and vibration impacts. To mitigate such noise impacts, a high-compliance direct-fixation resilient rail fastener can be incorporated into the track work.

Oil Wells
Your comment regarding the risks of tunneling near oil wells have been noted. Tunnels, through known oil well fields, have been safely constructed with no adverse incidents with either hazardous gas or oil casings. In recent Los Angeles tunneling history, there have been no oil well incidents related to tunneling, and oil well casings have been safely removed and re-abandoned.

During the Draft EIS/EIR, known oil fields and documented active or abandoned oil wells were identified from published oil well maps. Table 4-45 in the Draft EIS/EIR identifies oil wells (abandoned and active) that may be located within 100 feet of the proposed tunnel or station, as well as those that may be located within the proposed tunnel alignment. The oil fields themselves are much deeper than the potential subway tunnels. Shafts for existing active and abandoned oil wells have been mapped in the vicinity of the project alignment along with other utilities such as sewer, water, gas, and electric lines.

During the preparation of the Final EIS/EIR, a comprehensive study of all available information found that there was one mapped abandoned oil well within the proposed tunnel alignment. According to the state's records, the location of this well is beneath a parking structure on Century Park East and does not lie within the Beverly Hills High School (BHHS) campus. The magnetic survey program indicated that the mapped locations of abandoned oil wells could be inaccurate by 50 to 200 feet.

A geophysical (magnetic) survey was performed on the BHHS campus to detect metal, which would indicate the presence of an abandoned oil well casing. The survey identified only one anomaly on the BHHS campus that is close to the alignment. It is on the west edge of the lacrosse field and is located 5 to 10 feet north of the tunnel envelope. The anomaly may or may not be a well casing, but it will be further investigated and addressed appropriately as described below.

For exploration beneath the BHHS buildings during the next phases of design, horizontal directional drilling (HDD) investigation will be conducted along the alignment at tunnel level. A magnetometer probe survey will be conducted in the drilled hole to detect metal casings so that if found, they can be re-abandoned properly below the tunnel depth prior to tunneling. Moreover, during tunnel construction in Los Angeles, magnetometer surveys have been conducted in probe borings extending in front of the TBM to ensure that obstructions, such as well casings, are detected before they are reached by the TBM.
suspected oil field areas, probing of the tunnel zone will be carried out by HDD either before tunneling or ahead of the face during tunneling. To ensure that these additional studies are conducted, the following mitigation is included in the Final EIS/EIR.

• CON-53-Further Research on Oil Well Locations

With implementation of this mitigation measure, oil wells do not pose a risk to tunneling for the project. Abandoned oil wells have been encountered in the past during tunneling in Los Angeles. Procedures have been developed to evaluate the well conditions and safely re-abandon them. Metro has experienced no gas incidents related to encounters with oil well casings during tunnel excavation on other projects.

Methane and other Subsurface Gas

Subsurface gas is present throughout much of the Los Angeles area and is often a factor in foundation design and construction of underground structures. While tunneling for transportation has special considerations, other projects have been constructed in subsurface gas zones within the Los Angeles region, including buildings with deep parking garages and basements, storm drains, sewer projects and other utility projects along the Wilshire Corridor. In addition, Metro has safely operated the existing Metro Red/Purple Line subway for over 15 years and has successfully constructed subway tunnels where subsurface gas has been present.

Methane and hydrogen sulfide are present in high concentrations along about a 1.1 mile stretch of the Westside Subway Extension alignment along Wilshire Boulevard from about Burnside Avenue on the east to about La Jolla Avenue on the west. However, the entire LPA alignment passes through an area characterized by oil and gas fields and is within the City's Methane Zone. Therefore, the possibility of encountering gaseous subsurface conditions can be expected for any portion of the alignment, and hazardous subsurface gases pose a significant hazard for construction of the LPA.

During construction, the pressurized face tunnel boring machines isolate gas from workers and the public, while gassy soil and tar sands are handled and disposed of appropriately. Robust underground ventilation and gas monitoring systems provide additional warning and protection. In addition, the state of California's division of Occupational Safety and Health (Cal/OSHA) maintains strict safety orders for tunneling where ground is classified as "Gassy" or "Potentially Gassy." Safety measures include continuous monitoring of the environment, "spark-proof" equipment, and other means to reduce risks to workers and the surroundings. The following mitigation measures will be implemented during construction of the LPA to reduce risks related to the presence of hazardous subsurface gases:

• CON-51-Techniques to Lower the Risk of Exposure to Hydrogen Sulfide
• CON-52-Measures to Reduce Gas Inflows
• CON-53-Further Research on Oil Well Locations
• CON-54-Worker Safety for Gassy Tunnels

The design and operation for tunnels and stations will provide a redundant protection system against gas intrusion. This will include: physical barriers to keep gas out of the
tunnels and stations; high volume ventilation systems to dilute gases to safe levels; gas
detection and monitoring systems with alarms; emergency ventilation triggered by the gas
detection systems; additional training of personnel to respond to alarms. The following
mitigation measures will be implemented during operation of the LPA to minimize risks
related to subsurface hazardous gases:

• GEO 5 - Hazardous Subsurface Gas Operations
• GEO 6 - Hazardous Subsurface Gas Structural Design
• GEO 7 - Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, risks associated with hazardous
subsurface gases will be reduced to less than significant levels during both construction
and operation of the LPA.

Liquefaction
Metro has conducted geotechnical and seismic investigations to determine those soil
conditions that are subject to liquefaction. Tunnels for the Westside Subway Extension
project will be mostly excavated and constructed within consolidated, dense to very dense
and stiff to hard soils belonging to older alluvium/Lakewood Formation sediments, which
are considered significantly less prone to liquefaction than young alluvial sediments.
However, due to the presence of shallow groundwater and young surficial alluvial deposits,
there may be potential liquefaction adjacent to the upper portions of some station walls at
the Wilshire/La Cienega, Westwood/UCLA, and Westwood/VA Hospital Stations. Lateral
spreading is not anticipated in the vicinity of the LPA.

Based on the magnitude of evaluated liquefaction, either structural design or ground
improvement techniques or deep foundations to minimize these hazards will be selected.
The following mitigation measures will be implemented during operation to reduce risks
related to liquefaction:

• GEO 4 - Liquefaction and Seismic Settlement
• GEO 7 - Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, liquefaction risk during operation will be
reduced to less than significant.

During construction, designs to minimize risk of liquefaction related damage to the
excavation support system include increasing the depth of solider piles to reach non-
liquefiable zones, or ground improvement to densify the soil may be provided prior to the
installation of the excavation support system therefore liquefaction is not a significant
impact during construction.

Groundwater
Tunnels will be excavated to a great extent below the ground water table. Pressurized face
tunnel boring machines will be used for excavation of the tunnels, and a gasketed tunnel
lining will be installed as the tunnel shield advances, so that inflow of water into the tunnel,
and thus, potential for lowering the ground water table above the tunnel route will be
minimal. Stations will be excavated partially above and below the water table. Local
dewatering around the station perimeter may be required to allow for safe and dry
conditions during construction. If dewatering is to be implemented, groundwater level
monitoring will be performed and impact from dewatering on the ground surface
(settlement) and/or adjacent structures will be monitored and evaluated. The following
mitigation measures will be implemented during construction to reduce impacts related to
dewatering:

• CON-47-Use of Pressurized-face TBMs for Tunnel Construction
• CON-48-Preconstruction Survey, Instrumentation, and Monitoring
• CON-49-Additional Geotechnical Exploration
• CON-50-Additional Methods to Reduce Settlement
• CON-70-Methods to Control Contaminated Groundwater
• CON-71-Plan if Contaminated Groundwater is Encountered

With implementation of these mitigation measures, impacts related to dewatering will be
reduced to less than significant.

Seismic
The LPA, as with most sites in southern California, is susceptible to strong ground shaking
generated during earthquakes by nearby faults. At least one segment of the Santa Monica
Fault crosses the LPA. In addition to the Santa Monica Fault, the West Beverly Hills
Lineament (WBHL)/Newport-Inglewood Fault Zone crosses the LPA in the vicinity of
Moreno Drive in the Century City area. However, many underground facilities—subway
tunnels, sewers, and storm drains—have been built in Los Angeles and throughout California
near and across active fault lines.

The hazards from an earthquake include fault rupture (cracking/fracturing of the ground
where one side of the fault moves relative to the other), shaking, and other secondary
effects. While the hazard due to shaking can be designed against, the hazard due to fault
rupture is potentially much more severe, but is also much more limited in area, being
confined to the specific zone of rupture. Because surface fault rupturing is generally
confined to a relative narrow zone of tens to several hundred feet wide, avoidance is often
a practical means of avoiding surface fault rupture hazards for facilities such as stations.
Furthermore, since subway stations are structures for human occupancy, they should not
be built on active fault/deformation zones because of life/safety concerns expressed in
state regulations and in Metro Design Criteria.

However, for linear facilities such as tunnels, avoidance may not be possible. Design will
allow for the tunnels to cross the faults as perpendicular as possible to the fault line to limit
the area of potential damage. Tunneling or building stations along an active fault in a
parallel direction is generally not recommended and is in some instances prohibited by
State law. Depending on the predicted fault offset and area over which the movement is
distributed, some distortion may be accommodated by the structure. Special designs, such
as larger tunnel diameters and enhanced tunnel linings, are employed when crossing fault
zones to reduce the risk of damage and allow for a relatively swift return to regular
operations should fault displacement take place at a tunnel crossing. The Metro Red Line tunnels cross the Hollywood Fault north of the Highland Station and were built to these heightened standards.

During the Final EIS/EIR phase, Metro conducted further geotechnical studies to supplement the studies conducted during the Draft EIS/EIR, which concluded that both the Santa Monica fault zone and the WBHL in the Century City vicinity are active fault zones and each fault zone is capable of generating earthquakes of M7 or greater with average surface displacements of 3 to 6 feet. Moreover, there is no knowledge of where either of these faults resides in their respective seismic cycles.

Santa Monica Boulevard effectively lies within the Santa Monica Fault zone from west of Century Park West to east of Avenue of the Stars. The originally proposed Santa Monica Boulevard Station at Avenue of the Stars would be directly within the fault zone. The WBHL is a wide fault zone with several well-defined strands situated along the eastern margin of Century City. It is the inferred northern extension of the active Newport-Inglewood fault zone. The WBHL terminates the active Santa Monica Fault to the east. The refined location of the Santa Monica Station at Century Park East would straddle the WBHL. No evidence of faulting was found on the Constellation Boulevard Station site.

In summary, both of the Santa Monica Boulevard Station options are located within active fault zones, but the Constellation Boulevard Station site is located outside zones of active faulting and can be considered a viable option. The LPA will cross fault zones and will require special designs to accommodate fault movement. These mitigation measures, which are detailed in Section 4.8 of this Final EIS/EIR include:

• GEO-2-Fault Crossing Tunnel, Fault Rupture, Tunnel Crossing
• GEO 7 - Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, impacts will be reduced to less than significant. During subsequent design phases, explorations will continue to more precisely locate the fault zones with respect to the tunnel alignment selected and the fault characteristics for design.

All tunnels, stations, shafts and all other project facilities and infrastructure are designed and built with due consideration and strict adherence to earthquake design requirements, building codes and conformance to Metro Design Standards for the ground motions of the design level earthquakes.

• GEO-1-Seismic Ground Shaking
• GEO-3-Operational Procedures During an Earthquake
• GEO 7 - Tunnel Advisory Panel Design Review

By compliance with these regulations and requirements, potential seismic ground shaking impacts will be minimized and impacts will be reduced to less than significant.

Subsidence and Settlement
In recent years, Metro has employed improved tunneling techniques to minimize impacts on adjacent properties. Pressurized face tunnel boring machines developed over the past 30 years now provide reliable control of ground movements around the tunnel and have become a standard throughout the world. Behind the cutting wheel at the front of the tunnel is an enclosed chamber that is filled with the excavated soil. This provides pressure that supports the ground in front of the tunnel face and significantly reduces the risk of surface subsidence. Using this technology, Metro recently completed 1.7-miles of twin tunnel for the Metro Gold Line Eastside Extension project, passing beneath structures with no measurable surface subsidence and no substantiated damage claims from settlement.

With regard to subsidence along the LPA, no current substantial subsidence problems related to petroleum or groundwater extraction have been identified. Therefore, the subsidence related to extraction of petroleum and groundwater is not considered a hazard to the LPA during operations. However, the potential exists for ground subsidence related to construction activities such as tunneling and dewatering at station areas along the full length of the proposed alignment and options. Therefore, construction dewatering induced subsidence poses a potentially adverse impact.

Dewatering is usually not necessary when tunneling with pressure-face TBMs. However, station construction will require excavations that will encounter the groundwater table and/or perched groundwater, dewatering may be required to complete the construction in some areas. Dewatering of the excavations made during construction could result in potentially damaging subsidence adjacent to the construction area. However, experience in much of the corridor is that the soils have previously undergone numerous cycles of ground-water fluctuation, and have therefore previously experienced the settlements associated with lowering of the ground water, and will not be expected to have significant additional settlement.

To minimize risks, prior to construction, structures along the tunnel alignment are assessed and tunneling equipment and operating criteria are selected that will best protect the structures. Ground movements are limited by monitoring and controlling critical operations of the tunnel boring machine, and, if needed, by use of supplemental ground control measures, such as grouting. Ground movements around the tunnel and at the surface are measured and nearby structures are surveyed in order to make timely adjustments and to confirm that ground movements are under control as the tunnel is advanced. The following mitigation measures will be implemented during construction to minimize any potential for ground settlement or subsidence.

- CON-47-Use of Pressurized-face TBMs for Tunnel Construction
- CON-48-Preconstruction Survey, Instrumentation, and Monitoring
- CON-49-Additional Geotechnical Exploration
- CON-50-Additional Methods to Reduce Settlement

With implementation of these mitigation measures, construction risks related to subsidence and settlement will be reduced to less than significant.

Results of these additional noise and vibration analyses and mitigation measures can be
found in Section 4.6 of this Final EIS/EIR and the Westside Subway Extension Noise and Vibration Study. Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of oil wells, methane gas, seismic risk and other geotechnical considerations. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

851-3
Your comments about the planned modernization of Beverly Hills High School (BHHS) have been noted. Tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date. It is not anticipated that any modernization plans including those for subterranean structures would conflict with the subway extension. However, Metro will continue to coordinate with BHHS throughout the design phase to minimize conflict.

851-4
Your comments about community attitudes have been noted. Your comment about members of the Beverly Hills community being strongly supportive of the Santa Monica route and adamantly opposed to alternative routes has also been noted. Your comment about the alternative routes being selected in support of commercial development has been has also been noted.

Metro followed FTA’s New Starts project planning and development process and carefully considered public input in developing the location of the Century City Station.

The process of determining the location of the Century City Station began with the Westside Transit Corridor Alternatives Analysis Study in 2007. At the beginning of the Alternatives Analysis (AA) Study, two general corridors—one along Wilshire Boulevard and the other along Santa Monica Boulevard—were presented to the public at Early Scoping meetings. Some people who spoke at the Early Scoping meetings generally supported the proposed station locations that were presented (Santa Monica Boulevard in Century City being one of them). However, some attendees also suggested additional or alternate station locations, with some commenting that the station in Century City should be south of Santa Monica Boulevard, closer to the center of Century City, which Metro took into consideration.

During scoping for the Draft EIS/EIR in 2009, Metro sought additional public comment on the alignment and station options in the Beverly Hills to Westwood area, including the Century City Station location. During preparation of the Draft EIS/EIR, the alignment and
station locations were refined to avoid impacts to the natural and built environments where feasible, provide a cost-effective solution to increase east/west mobility in the Study Area, and respond to public and agency input. The analysis and refinement of the station and alignment locations, including the Century City Station location, are described in the Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report. Ultimately, the Century City Santa Monica Station and the Century City Constellation Station were carried forward for analysis in the Draft EIS/EIR.

On October 28, 2010, the Metro Board of Directors approved the Draft EIS/EIR and identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The results of these further studies as well as recommendations are described in the response to comment number 851-1. As stated above, the Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter.

The studies concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station. Following the public circulation of the Final EIS/EIR in early 2012, the Metro Board of Directors will certify the Final EIS/EIR and act on the Century City Station location recommendation in the adoption of the Project. In making their decision, the Metro Board of Directors will take into account all of the engineering and environmental factors that were analyzed in the Century City Station Location Report as well as public opinion.

The response to all comments received from the community during the circulation of the Draft EIS/EIR are located in Appendix H of the Final EIS/EIR. Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station. Refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Century City Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century.
Your comment regarding property values has been noted.

Since the LPA will improve transit service in the Study Area, research suggests that it is likely that properties within walking distance of the stations will realize value premiums over similar properties that are farther away. Based on studies of other regions with transit systems (i.e., San Francisco, San Diego, and San Jose, California; New York, New York; and Portland, Oregon), an average home price increase of 6.4 percent within one-half mile of each transit station may be experienced. Although most studies on real estate value impacts from transit show increases in value, they cannot explicitly isolate transit benefits from other market forces that affect real estate values.

Value increases within proximity of a transit station are realized in sales price as well as rent premiums. For residential properties, these increases resulted from potential commute or recreational travel time savings and associated vehicle cost reductions (including both reduced mileage as well as a reduction in the number of cars owned by the household).

Negative impacts on property values from transit (termed “nuisance” effects) also can occur, but are not anticipated to result from this Project. Measurable noise impacts from vehicles, increased foot traffic, adjacent structures, transit-associated parking, and increased bus traffic interfacing with transit stations can reduce the desirability of properties near a fixed guideway station. Such nuisance effects will most likely occur in areas where value is not attributed to the accessibility improvements that transit provides. This does not appear likely within the Study Area, as stations are planned for areas that are already densely developed and near major roads and bus routes.

All residents and businesses displaced as a result of the LPA will be given advance written notice and will be informed of their eligibility for relocation assistance and payments under the Uniform Relocation Assistance and Real Property Acquisition Policies Act. In areas where the subway operates under private property, Metro will work with the property owner to secure a subsurface easement. The following mitigation measures will be implemented to ensure just compensation for acquisitions and easements:

- CN-1-Relocation Assistance and Compensation
- CN-2-Propose Joint-use Agreements
- CN-3-Compensation for Easements
Section 4.2.3 of the Final EIS/EIR assesses the property tax revenue loss anticipated under the LPA. The fiscal impact analysis shows that the LPA will not lead to property tax losses in excess of 1 percent of the Project's Study Area tax base. Furthermore, property tax losses will not adversely affect any one tax district, including the City of Beverly Hills, within the Study Area. Therefore, no adverse effect will occur from losses in property tax revenues.

Please refer to Sections 4.2.2, 4.2.3, and 4.2.4 of this Final EIS/EIR for a discussion of the economic and fiscal impacts of the Project, including property acquisitions and easements. Refer to the Westside Subway Extension Economic and Fiscal Impacts Analysis and Mitigation Report for a more detailed discussion of property value and property tax impacts.
Your comments about the EIR considerations have been noted. With regard to the executive summary and the report data, it should be noted that the summary is intended to provide a synopsis of the entire Draft and Final EIS/EIR, including the purpose and need, project description, environmental impacts, community outreach, costs and benefits, etc. For more detail on any topic addressed in the executive summary, a reader can refer to the full report. The data between the two documents is the same, just the level of detail is different.

The Beverly Hills High School is discussed in Section 4.13 as a community facility. The land use designation of Beverly Hills High School as government/institutional land is discussed in Section 4.1 Land Use of the Draft and Final EIS/EIR. Section 4.13 discusses the parklands and community services and facilities that are currently on a given site, while Section 4.1 discusses the zoning and other land use designations that are based on the land use maps and designations from the local jurisdictions. Beverly Hills High School is not identified as unoccupied space in either section. Additionally, the aerial maps showing land use in Section 4.1 include a separate category for "Parking/Vacant" parcels. In these maps Beverly Hills High School is not identified as a vacant parcel.

Your comment about the strong support of the Santa Monica Boulevard route by the Beverly Hills Board of Education has been noted. Please see response above to comment number 851-1.
Your comment about the Beverly Hills Unified School District's letter dated October 18, 2010 has been noted. This letter--and responses to the comments made--is included in Appendix H of the Final EIS/EIR.

Your comment about the District's opposition to Alternative 4 and concerns about tunneling beneath homes and schools has also been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The Metro Board of Directors also decided to not include the Constellation South alignment between the Wilshire/Rodeo and Century City Stations as part of the LPA, but to continue to study the Constellation North and the Santa Monica Boulevard alignments. The Constellation South alignment passed beneath more residential properties than the Constellation North or Santa Monica Boulevard alignments. In addition, the Metro Board of Directors decided to not include the West or Central alignments between Century City and Westwood/UCLA as part of the LPA, but to continue to study the East alignment because the East alignment is the most direct and least expensive route between the two stations.

Safety, both during construction and eventual operations, is one of Metro's highest priorities and is one of the key evaluation criteria in selection of the Locally Preferred Alternative (LPA). In response to the Metro Board of Director's request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

On most transit tunnel projects, significant portions of the alignment are constructed adjacent to or beneath buildings. The LPA passes beneath homes and schools in these neighborhoods because the curve radius required for subway tunnels is much wider than that required at a typical surface street intersection. The current alignment minimizes tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes or structures within the Beverly Hills High School campus.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the
West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBM for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an earthquake nor change the severity of shaking. Finally, tunnels can be constructed and operated safely in gassy grounds and oil wells do not pose an unmitigatable risk to tunneling.

The additional detailed geotechnical studies also assessed soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. These studies concluded that the predicted vibration and noise levels are within the FTA requirements and operation of the subway is not anticipated to have adverse impacts with the implementation of mitigation, including areas where the tunnels pass beneath homes and schools. During construction, low levels of noise and vibration may be experienced for a day or two as each of the two TBM pass under a given location. In addition, as the tunnels are driven, construction trains bring supplies to and from the tunnel heading. However, these underground construction noises will also be controlled to be within Metro criteria.

The Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter. Furthermore, tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date.

These geotechnical studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site. Tunnels to the east and west of Century City pass through at least two active faults. However, there are numerous tools, designs, and construction means and methods that have been used elsewhere that can be used to safely tunnel through these fault zones.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.
Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station and alignments and Section 8.8.4 of the Final EIS/EIR for a more detailed response to geotechnical concerns. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comments about tunneling under the Beverly Hills High School relative to oil wells have been noted. Tunnels, through known oil well fields, have been safely constructed with no adverse incidents with either hazardous gas or oil casings. In recent Los Angeles tunneling history, there have been no oil well incidents related to tunneling, and oil well casings have been safely removed and re-abandoned.

During the Draft EIS/EIR, known oil fields and documented active or abandoned oil wells were identified from published oil well maps. Table 4-45 in the Draft EIS/EIR identifies oil wells (abandoned and active) that may be located within 100 feet of the proposed tunnel or station, as well as those that may be located within the proposed tunnel alignment. The oil fields themselves are much deeper than the potential subway tunnels. Shafts for existing active and abandoned oil wells have been mapped in the vicinity of the project alignment along with other utilities such as sewer, water, gas, and electric lines.

During the preparation of the Final EIS/EIR, a comprehensive study of all available information found that there was one mapped abandoned oil well within the proposed tunnel alignment. According to the state's records, the location of this well is beneath a parking structure on Century Park East and does not lie within the Beverly Hills High School (BHHS) campus. The magnetic survey program indicated that the mapped locations of abandoned oil wells could be inaccurate by 50 to 200 feet.

A geophysical (magnetic) survey was performed on the BHHS campus to detect metal,
which would indicate the presence of an abandoned oil well casing. The survey identified only one anomaly on the BHHS campus that is close to the alignment. It is on the west edge of the lacrosse field and is located 5 to 10 feet north of the tunnel envelope. The anomaly may or may not be a well casing, but it will be further investigated and addressed appropriately as described below.

For exploration beneath the BHHS buildings during the next phases of design, horizontal directional drilling (HDD) investigation will be conducted along the alignment at tunnel level. A magnetometer probe survey will be conducted in the drilled hole to detect metal casings so that if found, they can be re-abandoned properly below the tunnel depth prior to tunneling. Moreover, during tunnel construction in Los Angeles, magnetometer surveys have been conducted in probe borings extending in front of the TBM to ensure that obstructions, such as well casings, are detected before they are reached by the TBM. In suspected oil field areas, probing of the tunnel zone will be carried out by HDD either before tunneling or ahead of the face during tunneling. To ensure that these additional studies are conducted, the following mitigation is included in the Final EIS/EIR.

- **CON-53-Further Research on Oil Well Locations**

  With implementation of this mitigation measure, oil wells do not pose a risk to tunneling for the project. Abandoned oil wells have been encountered in the past during tunneling in Los Angeles. Procedures have been developed to evaluate the well conditions and safely re-abandon them. Metro has experienced no gas incidents related to encounters with oil well casings during tunnel excavation on other projects.

  Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of oil wells. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and the *Westside Subway Extension Century City Area Tunneling Safety Report*. All reports are available on the Metro Westside Subway Extension Project website: [www.metro.net/projects/westside/westside-reports](http://www.metro.net/projects/westside/westside-reports).
Your comments about the EIR failing to evaluate the potential significant impacts due to the earthquake fault have been noted. The LPA, as with most sites in southern California, is susceptible to strong ground shaking generated during earthquakes by nearby faults. At least one segment of the Santa Monica Fault crosses the LPA. In addition to the Santa Monica Fault, the West Beverly Hills Lineament (WBHL)/Newport-Inglewood Fault Zone crosses the LPA in the vicinity of Moreno Drive in the Century City area. However, many underground facilities—subway tunnels, sewers, and storm drains—have been built in Los Angeles and throughout California near and across active fault lines.

The hazards from an earthquake include fault rupture (cracking/fracturing of the ground where one side of the fault moves relative to the other), shaking, and other secondary effects. While the hazard due to shaking can be designed against, the hazard due to fault rupture is potentially much more severe, but is also much more limited in area, being confined to the specific zone of rupture. Because surface fault rupturing is generally confined to a relatively narrow zone of tens to several hundred feet wide, avoidance is often a practical means of avoiding surface fault rupture hazards for facilities such as stations. Furthermore, since subway stations are structures for human occupancy, they should not be built on active fault/deformation zones because of life/safety concerns expressed in state regulations and in Metro Design Criteria.

However, for linear facilities such as tunnels, avoidance may not be possible. Design will allow for the tunnels to cross the faults as perpendicular as possible to the fault line to limit the area of potential damage. Tunneling or building stations along an active fault in a parallel direction is generally not recommended and is in some instances prohibited by State law. Depending on the predicted fault off-set and area over which the movement is distributed, some distortion may be accommodated by the structure. Special designs, such as larger tunnel diameters and enhanced tunnel linings, are employed when crossing fault zones to reduce the risk of damage and allow for a relatively swift return to regular operations should fault displacement take place at a tunnel crossing. The Metro Red Line tunnels cross the Hollywood Fault north of the Highland Station and were built to these heightened standards.

During the Final EIS/EIR phase, Metro conducted further geotechnical studies to supplement the studies conducted during the Draft EIS/EIR, which concluded that both the Santa Monica fault zone and the WBHL in the Century City vicinity are active fault zones and each fault zone is capable of generating earthquakes of M7 or greater with average surface displacements of 3 to 6 feet. Moreover, there is no knowledge of where either of these faults resides in their respective seismic cycles.

Santa Monica Boulevard effectively lies within the Santa Monica Fault zone from west of Century Park West to east of Avenue of the Stars. The originally proposed Santa Monica Boulevard Station at Avenue of the Stars would be directly within the fault zone. The WBHL...
852-3

is a wide fault zone with several well-defined strands situated along the eastern margin of Century City. It is the inferred northern extension of the active Newport-Inglewood fault zone. The WBHL terminates the active Santa Monica Fault to the east. The refined location of the Santa Monica Station at Century Park East would straddle the WBHL. No evidence of faulting was found on the Constellation Boulevard Station site.

In summary, both of the Santa Monica Boulevard Station options are located within active fault zones, but the Constellation Boulevard Station site is located outside zones of active faulting and can be considered a viable option. The LPA will cross fault zones and will require special designs to accommodate fault movement. These mitigation measures, which are detailed in Section 4.8 of this Final EIS/EIR include:

• GEO-2-Fault Crossing Tunnel, Fault Rupture, Tunnel Crossing
• GEO 7 - Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, impacts will reduced to less than significant. During subsequent design phases, explorations will continue to more precisely locate the fault zones with respect to the tunnel alignment selected and the fault characteristics for design.

All tunnels, stations, shafts and all other project facilities and infrastructure are designed and built with due consideration and a strict adherence to earthquake design requirements, building codes and conformance to Metro Design Standards for the ground motions of the design level earthquakes.

• GEO-1-Seismic Ground Shaking
• GEO-3-Operational Procedures During an Earthquake
• GEO 7 - Tunnel Advisory Panel Design Review

By compliance with these regulations and requirements, potential seismic ground shaking impacts will be minimized and impacts will be reduced to less than significant.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of seismic safety both during operation and construction. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

852-4

Your comment regarding the emergency disaster shelter has been noted. Please refer to the response to comment number 852-1 above for information on geotechnical studies conducted in preparation of the Final EIS/EIR to determine the safety of tunneling beneath
homes and schools in Beverly Hills and Westwood. These geotechnical studies concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comments about the planned modernization of Beverly Hills High School have been noted. Tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date. It is not anticipated that any modernization plans including those for subterranean structures would conflict with the subway extension. However, Metro will continue to coordinate with Beverly Hills High School throughout the design phase to minimize conflict.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBMs for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an earthquake nor change the severity of shaking.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of seismic safety both during operation and construction. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comments regarding noise and traffic impacts during both construction and operation have been noted.
Traffic impacts associated with LPA construction include reduced roadway traffic lanes and temporary street closures that could result in major traffic disruptions and bottlenecks. These impacts are associated with contractor work and storage areas, stations, crossovers, mining entry/exit locations, TBM operations and support activities, truck haul routes, transportation of oversized construction materials, station entrances, station appendages, grout injection, and drop holes for the LPA and are detailed in Section 3.8.2 of this Final EIS/EIR.

Subway stations are built by excavating the site for the station box and then building the station below ground. If the station is built under a street, it is covered over with concrete decking during construction to allow traffic to continue to flow overhead. Traffic will be disrupted at the beginning of station construction to allow for initial excavation and installation of the concrete decking, and again at the end to remove the decking and reconstruct the street. The Traffic-Control Activities during Station Construction table in Section 3.8 details the traffic-control activities during station construction and the duration of each activity.

Anticipated truck haul routes consist of major city arterial streets that trucks will use to transport spoils, muck, material, and equipment between the construction laydown site locations and the offsite disposal location using the nearest freeway interchange. To minimize peak-period traffic disruptions, haul truck activity will occur during off-peak and nighttime periods. These routes generally follow major commercial streets and avoid residential areas to the greatest extent possible. The proposed routes identified are provided in Section 3.8 of this Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report. The routes may be updated and revised once additional information, such as construction sequencing, is finalized. In addition, the proposed routes will be subject to the approval of Metro and appropriate departments at Federal, State, and local agencies. The routes will be finalized in coordination with local jurisdictions and will be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods.

TBM components will be transported to the tunnel construction site by truck. Several oversize deliveries will be required, some during nights and weekends. However, these large component deliveries are limited to the initial setup period for the TBM, as well as during the removal period. If a TBM is re-used to excavate a subsequent tunnel, the entire machine may be transported by road from one site to the next. This would require full or partial road closures, typically at night.

Following completion of the Project, if physical damage to haul routes was found, affected roads will be treated in a manner that returns affected facilities to pre-construction conditions. This work will restore the street or ground surface to its original condition, or
Site restoration operations will closely follow completion of the station structures. To maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic.

Backfill material will be trucked in, placed, and compacted. During backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks will be restored, and the permanent street will be constructed, including paving, striping, and signage. Streets, sidewalks, and landscaping will be restored in accordance with City standards.

To minimize impacts to traffic circulation, the following mitigation measures will be implemented during construction:

- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
- TCON-4-Transportation Management Plan
- TCON-5-Coordination with Planned Roadway Improvements

TCON-2, TCON-3, TCON-4, TCON-5 were added during this Final EIS/EIR phase based on additional analysis of construction impacts on traffic circulation and concerns raised by the public. With implementation of the mitigation, construction-related adverse effects on traffic circulation will be reduced for adjacent commercial areas and residential neighborhoods. Although the construction impacts on traffic circulation identified will be temporary, impacts and/or residual impacts after mitigation will remain significant and unavoidable during the construction period.

During construction, the greatest noise impacts will occur near stations, tunnel access portals, and construction laydown areas where construction activities at the surface are concentrated. In addition, haul routes will experience increased truck traffic, which could add to traffic noise. With the exception of these areas, all other construction will occur completely below-grade. Section 4.15.3 of this Final EIS/EIR analyzes construction noise impacts and mitigation measures.

When the construction site for the station box is open, noise from construction equipment will be audible at street level and result in an adverse effect. This time period will produce the highest levels of construction noise. The excavation and installation of street decking is expected to last four to five months. As the excavation continues below street level, the noise of construction will be reduced because the sides of the excavated opening will act as a sound barrier. Eventually when the surface opening is covered with temporary decking, construction noise at the surface will no longer be noticeable above the traffic noise. Therefore, the excavation of the station box will result in a temporary adverse noise effect.

To reduce the potential for noise and vibration impacts to schools associated with
construction, Metro’s plans, specifications, and estimates (bid) documents will include measures to comply with the City of Los Angeles, City of Beverly Hills, and County of Los Angeles noise ordinances during construction hours. To further reduce noise impacts during construction, the following mitigation measures will be implemented:

- CON-22-Hire or Retain the Services of an Acoustical Engineer
- CON-23-Prepare a Noise Control Plan
- CON-24-Comply with the Provisions of the Nighttime Noise Variance
- CON-25-Noise Monitoring
- CON-26-Use of Specific Construction Equipment at Night
- CON-27-Noise Barrier Walls for Nighttime Construction
- CON-28-Comply with Local Noise Ordinances
- CON-29-Signage
- CON-30-Use of Noise Control Devices
- CON-31-Use of Fixed Noise-Producing Equipment for Compliance
- CON-32-Use of Mobile or Fixed Noise-Producing Equipment
- CON-33-Use of Electrically Powered Equipment
- CON-34-Use of Temporary Noise Barriers and Sound-Control Curtains
- CON-35-Distance from Noise-Sensitive Receivers
- CON-36-Limited Use of Horns, Whistles, Alarms, and Bells
- CON-37-Requirements on Project Equipment
- CON-38-Limited Audibility of Project-Related Public Addresses or Music
- CON-39-Use of Haul Routes with the Least Overall Noise Impact
- CON-40-Designated Parking Areas for Construction-Related Traffic
- CON-41-Enclosures for Fixed Equipment
- TCON-2-Designated Haul Routes

Although mitigation measures will help to reduce noise impacts during construction, an adverse construction noise effect will remain after mitigation in the construction areas. In addition to noise impacts, construction of the LPA could result in vibration impacts before mitigation is implemented. Impact pile driving at the station boxes will result in adverse vibration impacts. Perceptible vibration levels could be experienced within 200 feet of pile driving operations. Additionally, equipment used for underground construction, such as the TBM and mine trains, could generate vibration levels that could result in audible ground-borne noise levels in buildings at the surface, depending on the depth of the tunnel and soil conditions. Tunneling under residences and schools will occur for a limited time. The TBM tunnels between 30 and 100 feet per day. For an average residence or business, this means that the TBMs would be below the surface of that structure for no more than a day or two. Since underground construction is expected to occur continuously over a 24-hour day, there is the potential for the tunnel boring operation to be audible during nighttime sleep hours when background noise levels inside residential buildings are very low. However, as indicated, the period for this potential disruption would be limited to a few days or less and mitigation measures would be implemented to minimize impacts.
The contractor will be responsible for the protection of vibration-sensitive historic buildings or cultural resource structures within 200 feet of any construction activity. To ensure that noise and vibration impacts associated with construction are below threshold levels, Metro’s plans, specifications, and estimates (bid) documents will include the following measures:

- CON-42-Phasing of Ground Impacting Operations
- CON-43-Alternatives to Impact Pile Driving
- CON-44-Alternative Demolition Methods
- CON-45-Restriction on Use of Vibratory Rollers and Packers
- CON-46-Metro Ground-Born Noise and Ground-Born Vibration Limits

If the Metro ground-borne noise limits or ground-borne vibration limits are exceeded during tunneling, the contractor will be required to take action to reduce vibrations to acceptable levels. Such action could include reducing the muck train speed, additional rail and tie isolation, and more frequent rail and wheel maintenance. However, there were no substantiated noise-level complaints made during tunneling for the Metro Gold Line Eastside Extension. Therefore, with mitigation, there will be no construction-related vibration adverse effects due to tunneling activities.

During operations, the LPA is expected to result in a slight decrease in the number of auto trips in the Study Area. Section 3.5 of this Final EIS/EIR includes an intersection-level traffic analysis to determine whether the LPA will result in additional traffic congestion at the local level due to passengers accessing the station. This analysis concluded that the LPA will not negatively impact any analyzed Study Area intersections with the exception of the Wilshire Boulevard and Beverly Drive intersection if the Wilshire/Rodeo Station entrance is located at the Bank of America site. This impact would be significant and unavoidable. However, this is not the recommended location for the Wilshire/Rodeo entrance. The recommended entrance, at Ace Gallery, would not result in any significant traffic impacts.

During operations, the LPA is not expected to result in any significant noise or vibration impacts with the implementation of mitigation. Subway tunnels are typically at least 50 to 70 feet below the surface to the track depth. As a result, noise and vibration are not typically noticeable at the surface. In the Beverly Hills, Century City, and Westwood areas, the proposed subway tunnels would generally be deeper than this in the areas where it would pass beneath homes and schools. For example, at Beverly Hills High School, the track depth would be 75-80 feet below the first floor of the school buildings. In Westwood, the track depth is more than 100 feet deep in most places. Since the first segment of the subway opened in 1993, Metro has received no complaints about noise or vibration due to subway operations.

Additional detailed geotechnical studies were conducted during the Final EIS/EIR phase to assess soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. This included measurements at the Beverly Hills High School site and in its buildings, as well as in the residential area between the Century City and Westwood/UCLA Stations.
These studies concluded that the predicted vibration and noise levels are within the FTA requirements, and tunnel operation is not anticipated to have adverse impacts with the implementation of mitigation. Noise from operation of the LPA from such sources as station ventilation system fans, emergency ventilation fans, traction power substations, and emergency generators will be designed to meet the noise-level limits specified in Metro Rail Design Criteria and will not result in any noise impacts. There are no vibration-sensitive receivers along the LPA that are predicted to exceed the FTA ground-borne vibration criteria.

Three locations along the LPA were identified where exceedance of the FTA ground-borne noise criteria will occur due to train operations along tangent track or through crossovers, if mitigation measures are not implemented. These locations are the Wilshire Ebell Theatre, an apartment building on Wilshire Boulevard at Orange Drive, and the Saban Theatre. To mitigate the potential for ground-borne noise impacts at these three locations, the following mitigation measures will be implemented:

- **VIB-1**—High compliance direct-fixation resilient rail fasteners will be incorporated into the design of the trackwork at the Wilshire Ebell Theatre and the Saban Theatre, which will reduce ground-borne noise by 5 to 7 dBA.
- **VIB-2**—A low impact crossover such as a moveable point frog or a spring-loaded frog will be used in the design of Wilshire/La Brea No. 10 double crossover for the apartments, which will reduce ground-borne noise by 5 to 6 dBA.

With these mitigation measures, there are no vibration-sensitive receivers that are predicted to exceed the FTA ground-borne vibration criteria during operation. Mitigation measure VIB-2 was added subsequent to the Draft EIS/EIR due to the additional studies conducted during preparation of this Final EIS/EIR.

Should future underground construction be considered that would place a school building foundation closer to the tunnel, mitigation measures could be implemented to reduce ground-borne noise and vibration impacts. To mitigate such noise impacts, a high-compliance direct-fixation resilient rail fastener can be incorporated into the track work.

Results of these additional noise and vibration analyses and mitigation measures can be found in Section 4.6 of this Final EIS/EIR and the *Westside Subway Extension Noise and Vibration Study*. The results of traffic analysis can be found in Sections 3.5 and 3.8 of the Final EIS/EIR the *Westside Subway Extension Construction Traffic Analysis Report*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comments about the environmental impacts affecting succeeding classes at Beverly Hills High School have been noted. Please see responses to comments 852-1, 852-2, 852-3, 852-4, 852-5 and 852-6 that indicate it is not anticipated that the Project would impact the high school.
Your preference for dropping Alternative 4 from further consideration has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA).
Your comment in support of the Westside Subway Extension has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools.

In response to the Metro Board of Director's request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. However, these studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in Appendix H - Response to Comments
the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comments with regards to the following issues are addressed in the responses below to comments number 608-3, 608-4, 608-5, 608-6, 608-7, and 608-8.

Your comment questioning the need for an alignment under the high school has been noted. Metro followed FTA's New Starts project planning and development process and carefully considered public input in developing the location of the Century City Station. The process of determining the location of the Century City Station began with the Westside Transit Corridor Alternatives Analysis Study in 2007. At the beginning of the Alternatives Analysis (AA) Study, two general corridors—one along Wilshire Boulevard and the other along Santa Monica Boulevard—were presented to the public at Early Scoping meetings. Some people who spoke at the Early Scoping meetings generally supported the proposed station locations that were presented (Santa Monica Boulevard in Century City being one of them). However, some attendees also suggested additional or alternate station locations, with some commenting that the station in Century City should be south of Santa Monica Boulevard, closer to the center of Century City, which Metro took into consideration.

During scoping for the Draft EIR/EIS in 2009, Metro sought additional public comment on the alignment and station options in the Beverly Hills to Westwood area, including the Century City Station location. During preparation of the Draft EIR/EIS, the alignment and station locations were refined to avoid impacts to the natural and built environments where feasible, provide a cost-effective solution to increase east/west mobility in the Study Area, and respond to public and agency input. The analysis and refinement of the station and alignment locations, including the Century City Station location, are described in the Westside Subway Extension Alternatives Screening and Refinement Scoping Report. Ultimately, the Century City Santa Monica Station and the Century City Constellation Station were carried forward for analysis in the Draft EIR/EIS.

On October 28, 2010, the Metro Board of Directors approved the Draft EIR/EIS and identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The results of these studies are described above in the response to comment number 608-1 and are in the Century City Station Location Report.

Based on the further analysis, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station. Following the public circulation of the Final EIS/EIR in early 2012, the Metro Board of Directors will certify the Final EIS/EIR and act on the Century City Station location recommendation in the adoption of the Project. In making...
their decision, the Metro Board of Directors will take into account all of the engineering and environmental factors that were analyzed in the Century City Station Location Report as well as public opinion.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station. Refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Century City Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your concerns regarding student and teacher safety at Beverly Hills High School have been noted. Safety, both during construction and eventual operations, is one of Metro's highest priorities and is one of the key evaluation criteria in selection of the Locally Preferred Alternative (LPA). In response to the Metro Board of Director's request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

On most transit tunnel projects, significant portions of the alignment are constructed adjacent to or beneath buildings. The LPA passes beneath homes and schools in these neighborhoods because the curve radius required for subway tunnels is much wider than that required at a typical surface street intersection. The current alignment minimizes tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes or structures within the Beverly Hills High School campus.
The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBMs for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an earthquake nor change the severity of shaking. Finally, tunnels can be constructed and operated safely in gassy grounds and oil wells do not pose an unmitigatable risk to tunneling.

The additional detailed geotechnical studies also assessed soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. These studies concluded that the predicted vibration and noise levels are within the FTA requirements and operation of the subway is not anticipated to have adverse impacts with the implementation of mitigation, including areas where the tunnels pass beneath homes and schools. During construction, low levels of noise and vibration may be experienced for a day or two as each of the two TBMs pass under a given location. In addition, as the tunnels are driven, construction trains bring supplies to and from the tunnel heading. However, these underground construction noises will also be controlled to be within Metro criteria.

The Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter. Furthermore, tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date.

These geotechnical studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site. Tunnels to the east and west of Century City pass through at least two active faults. However, there are numerous tools, designs, and construction means and methods that have been used elsewhere that can be used to safely tunnel through these fault zones.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings.
along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station.

Your comment regarding methane gas and other subsurface hazardous gases has been noted. Please see the response below to comment number 608-6 regarding tunneling in gassy grounds.

Your comment regarding security at the Century City Station has been noted. Metro continues to work through its Transit Services Bureau (TSB) with the local law enforcement agencies from the jurisdictions that host the Metro system to reduce crime risk to its passengers, employees, and staff at and near Metro properties. The TSB and designated Metro staff are working to identify future resources and other security requirements for the proposed stations along the subway extension. The Metro TSB will evaluate their resources to identify appropriate staffing levels for the subway extension as stations are designed, built, and opened for service. To determine the most effective security design for stations and the extended system, a security assessment to identify potential vulnerabilities will be performed. Typically, the assessment will be developed based on crime report information from Metro, local law enforcement agencies, and various other vulnerability information. These and other assessment findings will be analyzed and used by Metro to develop security protection designs for each station along the subway extension.

Mitigation measure SS-6 in the Final EIS/EIR states that Metro will incorporate security features, including lighting, communication devices (e.g., passenger telephones), closed circuit television, signs and other design features, and law enforcement officers to reduce criminal activities. With implementation of this mitigation, no adverse impacts related to crime at stations is anticipated.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station and alignments and Section 8.8.4 of the Final EIS/EIR for a more detailed response to geotechnical concerns. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of methane gas and other subsurface hazardous gases. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension.
608-3

Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. An assessment of security at stations is provided in Section 4.12 of the Final EIS/EIR. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment regarding noise and vibration during construction has been noted.

During construction, the greatest noise impacts will occur near stations, tunnel access portals, and construction laydown areas where construction activities at the surface are concentrated. In addition, haul routes will experience increased truck traffic, which could add to traffic noise. With the exception of these areas, all other construction will occur completely below-grade. Section 4.15.3 of this Final EIS/EIR analyzes construction noise impacts and mitigation measures.

When the construction site for the station box is open, noise from construction equipment will be audible at street level and result in an adverse effect. This time period will produce the highest levels of construction noise. The excavation and installation of street decking is expected to last four to five months. As the excavation continues below street level, the noise of construction will be reduced because the sides of the excavated opening will act as a sound barrier. Eventually when the surface opening is covered with temporary decking, construction noise at the surface will no longer be noticeable above the traffic noise. Therefore, the excavation of the station box will result in a temporary adverse noise effect.

To reduce the potential for noise and vibration impacts to schools associated with construction, Metro’s plans, specifications, and estimates (bid) documents will include measures to comply with the City of Los Angeles, City of Beverly Hills, and County of Los Angeles noise ordinances during construction hours. To further reduce noise impacts during construction, the following mitigation measures will be implemented:

- CON-22-Hire or Retain the Services of an Acoustical Engineer
- CON-23-Prepare a Noise Control Plan
- CON-24-Comply with the Provisions of the Nighttime Noise Variance
- CON-25-Noise Monitoring
- CON-26-Use of Specific Construction Equipment at Night
- CON-27-Noise Barrier Walls for Nighttime Construction
- CON-28-Comply with Local Noise Ordinances
- CON-29-Signage
- CON-30-Use of Noise Control Devices
- CON-31-Use of Fixed Noise-Producing Equipment for Compliance
- CON-32-Use of Mobile or Fixed Noise-Producing Equipment
- CON-33-Use of Electrically Powered Equipment
- CON-34-Use of Temporary Noise Barriers and Sound-Control Curtains
- CON-35-Distance from Noise-Sensitive Receivers
- CON-36-Limited Use of Horns, Whistles, Alarms, and Bells
- CON-37-Requirements on Project Equipment
- CON-38-Limited Audibility of Project-Related Public Addresses or Music
Although mitigation measures will help to reduce noise impacts during construction, an adverse construction noise effect will remain after mitigation in the construction areas. In addition to noise impacts, construction of the LPA could result in vibration impacts before mitigation is implemented. Impact pile driving at the station boxes will result in adverse vibration impacts. Perceptible vibration levels could be experienced within 200 feet of pile driving operations. Additionally, equipment used for underground construction, such as the TBM and mine trains, could generate vibration levels that could result in audible ground-borne noise levels in buildings at the surface, depending on the depth of the tunnel and soil conditions. Tunneling under residences and schools will occur for a limited time. The TBM tunnels between 30 and 100 feet per day. For an average residence or business, this means that the TBMs would be below the surface of that structure for no more than a day or two. Since underground construction is expected to occur continuously over a 24-hour day, there is the potential for the tunnel boring operation to be audible during nighttime sleep hours when background noise levels inside residential buildings are very low. However, as indicated, the period for this potential disruption would be limited to a few days or less and mitigation measures would be implemented to minimize impacts.

The contractor will be responsible for the protection of vibration-sensitive historic buildings or cultural resource structures within 200 feet of any construction activity. To ensure that noise and vibration impacts associated with construction are below threshold levels, Metro’s plans, specifications, and estimates (bid) documents will include the following measures:

- **CON-42-Phasing of Ground Impacting Operations**
- **CON-43-Alternatives to Impact Pile Driving**
- **CON-44-Alternative Demolition Methods**
- **CON-45-Restriction on Use of Vibratory Rollers and Packers**
- **CON-46-Metro Ground-Born Noise and Ground-Born Vibration Limits**

If the Metro ground-borne noise limits or ground-borne vibration limits are exceeded during tunneling, the contractor will be required to take action to reduce vibrations to acceptable levels. Such action could include reducing the muck train speed, additional rail and tie isolation, and more frequent rail and wheel maintenance. However, there were no substantiated noise-level complaints made during tunneling for the Metro Gold Line Eastside Extension. Therefore, with mitigation, there will be no construction-related vibration adverse effects due to tunneling activities. During operation, the LPA is not anticipated to result in noise or vibration impacts following the implementation of mitigation. Subway tunnels are typically at least 50 to 70 feet below the surface to the track depth. As a result, noise and vibration are not typically noticeable at the surface. In the Beverly Hills, Century City, and Westwood areas, the proposed subway tunnels would generally be deeper than this in the areas where it would pass beneath homes and schools. For
example, at Beverly Hills High School, the track depth would be 75-80 feet below the first floor of the school buildings. In Westwood, the track depth is more than 100 feet deep in most places. Since the first segment of the subway opened in 1993, Metro has received no complaints about noise or vibration due to subway operations. Additional detailed geotechnical studies were conducted during the Final EIS/EIR phase to assess soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. This included measurements at the Beverly Hills High School site and in its buildings, as well as in the residential area between the Century City and Westwood/UCLA Stations.

These studies concluded that the predicted vibration and noise levels are within the FTA requirements, and tunnel operation is not anticipated to have adverse impacts with the implementation of mitigation. Noise from operation of the LPA from such sources as station ventilation system fans, emergency ventilation fans, traction power substations, and emergency generators will be designed to meet the noise-level limits specified in Metro Rail Design Criteria and will not result in any noise impacts. There are no vibration-sensitive receivers along the LPA that are predicted to exceed the FTA ground-borne vibration criteria.

Three locations along the LPA were identified where exceedance of the FTA ground-borne noise criteria will occur due to train operations along tangent track or through crossovers, if mitigation measures are not implemented. These locations are the Wilshire Ebell Theatre, an apartment building on Wilshire Boulevard at Orange Drive, and the Saban Theatre. To mitigate the potential for ground-borne noise impacts at these three locations, the following mitigation measures will be implemented:

- **VIB-1**—High compliance direct-fixation resilient rail fasteners will be incorporated into the design of the trackwork at the Wilshire Ebell Theatre and the Saban Theatre, which will reduce ground-borne noise by 5 to 7 dBA.
- **VIB-2**—A low impact crossover such as a moveable point frog or a spring-loaded frog will be used in the design of Wilshire/La Brea No. 10 double crossover for the apartments, which will reduce ground-borne noise by 5 to 6 dBA.

With these mitigation measures, there are no vibration-sensitive receivers that are predicted to exceed the FTA ground-borne vibration criteria during operation. Mitigation measure VIB-2 was added subsequent to the Draft EIS/EIR due to the additional studies conducted during preparation of this Final EIS/EIR. Should future underground construction be considered that would place a school building foundation closer to the tunnel, mitigation measures could be implemented to reduce ground-borne noise and vibration impacts. To mitigate such noise impacts, a high-compliance direct-fixation resilient rail fastener can be incorporated into the track work.

Refer to Section 4.15 of the Final EIS/EIR for more detailed information on construction noise and vibration impacts. Results of the additional noise and vibration analyses conducted during the preparation of the Final EIS/EIR and mitigation measures can be found in Section 4.6 of this Final EIS/EIR and the Westside Subway Extension Noise and
608-4

Vibration Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Traffic impacts associated with LPA construction include reduced roadway traffic lanes and temporary street closures that could result in major traffic disruptions and bottlenecks. These impacts are associated with contractor work and storage areas, stations, crossovers, mining entry/exit locations, TBM operations and support activities, truck haul routes, transportation of oversized construction materials, station entrances, station appendages, grout injection, and drop holes for the LPA and are detailed in Section 3.8.2 of this Final EIS/EIR.

Subway stations are built by excavating the site for the station box and then building the station below ground. If the station is built under a street, it is covered over with concrete decking during construction to allow traffic to continue to flow overhead. Traffic will be disrupted at the beginning of station construction to allow for initial excavation and installation of the concrete decking, and again at the end to remove the decking and reconstruct the street. The Traffic-Control Activities during Station Construction table in Section 3.8 details the traffic-control activities during station construction and the duration of each activity.

Anticipated truck haul routes consist of major city arterial streets that trucks will use to transport spoils, muck, material, and equipment between the construction laydown site locations and the offsite disposal location using the nearest freeway interchange. To minimize peak-period traffic disruptions, haul truck activity will occur during off-peak and nighttime periods. These routes generally follow major commercial streets and avoid residential areas to the greatest extent possible. The proposed routes identified are provided in Section 3.8 of this Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report. The routes may be updated and revised once additional information, such as construction sequencing, is finalized. In addition, the proposed routes will be subject to the approval of Metro and appropriate departments at Federal, State, and local agencies. The routes will be finalized in coordination with local jurisdictions and will be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods.

TBM components will be transported to the tunnel construction site by truck. Several oversize deliveries will be required, some during nights and weekends. However, these large component deliveries are limited to the initial setup period for the TBM, as well as during the removal period. If a TBM is re-used to excavate a subsequent tunnel, the entire machine may be transported by road from one site to the next. This would require full or partial road closures, typically at night.

Following completion of the Project, if physical damage to haul routes was found, affected roads will be treated in a manner that returns affected facilities to pre-construction conditions. This work will restore the street or ground surface to its original condition, or better. Site restoration operations will closely follow completion of the station structures. To
maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic.

Backfill material will be trucked in, placed, and compacted. During backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks will be restored, and the permanent street will be constructed, including paving, striping, and signage. Streets, sidewalks, and landscaping will be restored in accordance with City standards.

To minimize impacts to traffic circulation, the following mitigation measures will be implemented during construction:

• TCON-1-Traffic Control Plans
• TCON-2-Designated Haul Routes
• TCON-3-Emergency Vehicle Access
• TCON-4-Transportation Management Plan
• TCON-5-Coordination with Planned Roadway Improvements

TCON-2, TCON-3, TCON-4, TCON-5 were added during this Final EIS/EIR phase based on additional analysis of construction impacts on traffic circulation and concerns raised by the public. With implementation of the mitigation, construction-related adverse effects on traffic circulation will be reduced for adjacent commercial areas and residential neighborhoods. Although the construction impacts on traffic circulation identified will be temporary, impacts and/or residual impacts after mitigation will remain significant and unavoidable during the construction period.

For noise impacts during construction, as described in Section 4.15 of this Final EIS/EIR, spillover traffic as a result of temporary street closures due to construction activities and haul truck routes have the potential to affect the residential character of the neighbor-hoods north and south of Wilshire and Santa Monica Boulevards. As mitigation, Metro will develop site-specific traffic-control plans, an overall transportation management plan, and designated haul routes that will use arterial streets and avoid residential neighborhoods (where feasible) during noise restriction hours and special events.

Your comment about neighborhood spillover parking at the Century City Station has been noted. Section 3.6 of this Final EIS/EIR estimates the demand for parking at the stations and determines whether surrounding neighborhoods would experience any spillover parking impacts due to subway riders looking for free, unrestricted parking within one-half mile of stations. The one-half mile threshold was established because this is the longest distance most transit riders are willing to walk to reach a station. Therefore, it is assumed that transit riders would not seek parking beyond one-half mile from a station. This analysis concluded that neither the Century City Constellation Station nor the Century City Santa Monica Station are anticipated to result in parking spillover impacts within one-half mile of the station. To further ensure no spillover parking impacts, the following mitigation measures will be implemented:
• T-2-Parking Monitoring and Community Outreach
• T-3-Residential Permit Parking Districts
• T-4-Consideration of Shared Parking Program

As a means of potentially using off-street parking in the vicinity of stations, Metro will consider developing a shared parking program with operators of off-street parking facilities to accommodate the Project's parking demand, thereby allowing subway riders to use excess capacity in these facilities. The revised off-street parking analysis conducted for this Final EIS/EIR determined that more than 100,000 off-street parking spaces serve commercial land uses within a one-half mile walking distance of the seven LPA station locations. As part of the analysis, a sampling of parking facility operators for each station location was contacted to determine availability of public parking in their facility on weekdays and weekends, daily parking rate, facility occupancy, and interest in partnering with Metro to make parking available to riders of the Westside Subway Extension. Based on a sample of operators at each station area, some shared parking potential for subway riders exists. However, this potential may be limited at individual facilities because many are near their capacity during weekdays.

For six months following the opening of service, Metro will monitor off-street parking activity in station areas through communication with parking operators to qualitatively gauge the effects on parking demand as a result of the Project and revisit their interest in participating in a shared parking program. It is anticipated that the Project will reduce parking demand in station areas, as some employees will use the subway to commute to work rather than driving. Because the development of a shared parking program will be contingent on the willingness of parking facility operators to participate, as well as the availability of parking supply at their facilities, it may be infeasible to implement this measure at some or all station areas where spillover parking impacts have been identified.

With implementation of the mitigation measures, spillover parking is not anticipated to be an adverse effect to neighborhoods surrounding the stations. Since transit riders will not be driving to stations to park, traffic during operation is not anticipated to be an impact in station areas. Section 3.5 of this Final EIS/EIR includes an intersection-level traffic analysis to determine whether the LPA will result in additional traffic congestion at the local level, including in the vicinity of the Century City Station, due to passengers accessing the station. This analysis concluded that the LPA, including the Century City Station, will not negatively impact any analyzed Study Area intersections in the immediate vicinity of the Century City Station with either the Santa Monica or Constellation location.

Please refer to the Westside Subway Extension Parking Impacts and Policy Plan and the Westside Subway Extension Updated Off-Street Parking Analysis Memorandum for an analysis of parking impacts at stations. Please refer to the Westside Subway Extension Construction Traffic Analysis Report for a discussion of traffic impacts anticipated during construction. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports
Your comment regarding methane gas and other subsurface hazardous gases has been noted.

Safety, both during construction and eventual operations, is one of Metro's highest priorities. It was also one of the key evaluation criteria during the Draft EIS/EIR, and has been further considered in the Final EIS/EIR phase. In 2005, an American Public Transportation Association Peer Review Panel determined that “It is possible to tunnel and operate a subway along the Wilshire Corridor safely.” This conclusion was reached given the newer technology now used for tunneling, including pressurized face tunnel boring machines.

Subsurface gas is present throughout much of the Los Angeles area and is often a factor in foundation design and construction of underground structures. While tunneling for transportation has special considerations, other projects have been constructed in subsurface gas zones within the Los Angeles region, including buildings with deep parking garages and basements, storm drains, sewer projects and other utility projects along the Wilshire Corridor. In addition, Metro has safely operated the existing Metro Red/Purple Line subway for over 15 years and has successfully constructed subway tunnels where subsurface gas has been present.

Methane and hydrogen sulfide are present in high concentrations along about a 1.1 mile stretch of the Westside Subway Extension alignment along Wilshire Boulevard from about Burnside Avenue on the east to about La Jolla Avenue on the west. However, the entire LPA alignment passes through an area characterized by oil and gas fields and is within the City's Methane Zone. Therefore, the possibility of encountering gaseous subsurface conditions can be expected for any portion of the alignment, and hazardous subsurface gases pose a significant hazard for construction of the LPA.

During construction, the pressurized face tunnel boring machines isolate gas from workers and the public, while gassy soil and tar sands are handled and disposed of appropriately. Robust underground ventilation and gas monitoring systems provide additional warning and protection. In addition, the state of California’s division of Occupational Safety and Health (Cal/OSHA) maintains strict safety orders for tunneling where ground is classified as “Gassy” or “Potentially Gassy.” Safety measures include continuous monitoring of the environment, “spark-proof” equipment, and other means to reduce risks to workers and the surroundings. The following mitigation measures will be implemented during construction of the LPA to reduce risks related to the presence of hazardous subsurface gases:

- CON-51—Techniques to Lower the Risk of Exposure to Hydrogen Sulfide
- CON-52—Measures to Reduce Gas Inflows
- CON-53—Further Research on Oil Well Locations
- CON-54—Worker Safety for Gassy Tunnels
The design and operation for tunnels and stations will provide a redundant protection system against gas intrusion. This will include: physical barriers to keep gas out of the tunnels and stations; high volume ventilation systems to dilute gases to safe levels; gas detection and monitoring systems with alarms; emergency ventilation triggered by the gas detection systems; additional training of personnel to respond to alarms. The following mitigation measures will be implemented during operation of the LPA to minimize risks related to subsurface hazardous gases:

- GEO-5 – Hazardous Subsurface Gas Operations
- GEO-6—Hazardous Subsurface Gas Structural Design
- GEO-7 – Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, risks associated with hazardous subsurface gases will be reduced to less than significant levels during both construction and operation of the LPA.

Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of methane gas and other subsurface hazardous gases. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Tunneling Safety Report*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Project construction will not have an effect on the Beverly Hills High School (BHHS) campus. Section 4.14 of the Final EIS/EIR identifies BHHS as historic property and concludes that a No Adverse Effect Determination under Section 106 was made for BHHS. Construction of the Project will not cause physical destruction or damage to the BHHS campus, and will not change the character of the use of the property or physical features within the setting of the property that contributes to its significance. Also, the Project will not result in indirect visual, atmospheric, or audible elements that will diminish the integrity of significant features of the BHHS campus.

Your comments about the planned modernization of Beverly Hills High School have been noted. Tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date. It is not anticipated that any modernization plans including those for subterranean structures would conflict with the subway extension. However, Metro will continue to coordinate with Beverly Hills High School throughout the design phase to minimize conflict.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the
West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBMss for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an earthquake nor change the severity of shaking.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of seismic safety both during operation and construction. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
An Alternatives Analysis is the first step in the FTA's New Starts Project Planning and Development process. The purpose of an AA Study is to focus on a specific transportation need (or set of needs) in a given corridor, identify alternative actions to address these needs, and generate the information needed to select a preferred project for implementation, or a smaller set of viable alternatives for further study. To that end, preliminary alternatives were identified from early scoping, these alternatives were evaluated, and a set of alternatives were recommended for further consideration in the Draft EIS/EIR. "Option 4" was part of Alternative 1 and Alternative 11 that were carried forward into the Draft EIS/EIR. A thorough and detailed environmental analysis was then conducted on all alternatives in the Draft EIS/EIR, including Option 4, and all alternatives were analyzed on an equal basis. In many impact categories, the impacts for all alternatives were discussed under the category "Build Alternatives," as in those cases there were no differences in the options considered for that particular impact. In the instances where differences did occur between options, these were identified.

Additionally as discussed in response to comment 608-2, further analysis was undertaken to focus on the engineering and environmental aspects of the two Century City Station options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. Please refer to the response for comment number 608-2 for details about this additional analysis and resulting recommendations.
RESOLUTION OF THE BOARD OF EDUCATION OF THE
BEVERLY HILLS UNIFIED SCHOOL DISTRICT
WESTSIDE SUBWAY EXTENSION

RESOLUTION 2010-2010-012

WHEREAS, The Governing Board of the Beverly Hills Unified School District provided time during the regular Board Meeting of August 23, 2010 to allow time for Board and community members to discuss the Westside Subway Extension; and

WHEREAS, The Governing Board of the Beverly Hills Unified School District made it very clear that they supported the proposed subway extension route along the Santa Monica corridor; and

WHEREAS, The Governing Board of the Beverly Hills Unified School District were unanimous in their absolute opposition to any proposed alternative route that would take the subway extension under Beverly Hills High School and the School District Offices; and

WHEREAS, The Governing Board of the Beverly Hills Unified School District were unanimous in their concern that any subway extension under Beverly Hills High School and the District Offices would have a negative impact on student and teacher safety, the ability of the District to fully and safely develop school property, and the ability of Beverly Hills High School to continue to act as a designated emergency center for the entire community;

NOW, THEREFORE, The Governing Board of the Beverly Hills Unified School District does hereby resolve to request that for the reasons stated above the Metro Board not approve under any circumstances a proposed subway route under Beverly Hills High School or the District Offices.

Adopted by the Governing Board of the Beverly Hills Unified School District on October 18, 2010, in Beverly Hills, County of Los Angeles, California, by the following vote:

AYES: 5
NAYS: 0
ABSENTIONS: 0
ABSENCES: 0
Your comment in support of the Century City Santa Monica Station and concerns about tunneling beneath homes and schools has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The Metro Board of Directors also decided not to include the Constellation South alignment between the Wilshire/Rodeo and Century City Stations as part of the LPA, but to continue to study the Constellation North and the Santa Monica Boulevard alignments. The Constellation South alignment passed beneath more residential properties than the Constellation North or Santa Monica Boulevard alignments. In addition, the Metro Board of Directors decided to not include the West or Central alignments between Century City and Westwood/UCLA as part of the LPA, but to continue to study the East alignment because the East alignment is the most direct and least expensive route between the two stations.

Safety, both during construction and eventual operations, is one of Metro’s highest priorities and is one of the key evaluation criteria in selection of the Locally Preferred Alternative (LPA). In response to the Metro Board of Director’s request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

On most transit tunnel projects, significant portions of the alignment are constructed adjacent to or beneath buildings. The LPA passes beneath homes and schools in these neighborhoods because the curve radius required for subway tunnels is much wider than that required at a typical surface street intersection. The current alignment minimizes tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes or structures within the Beverly Hills High School campus.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBM’s for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an
earthquake nor change the severity of shaking. Finally, tunnels can be constructed and operated safely in gassy grounds and oil wells do not pose an unmitigatable risk to tunneling.

The additional detailed geotechnical studies also assessed soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. These studies concluded that the predicted vibration and noise levels are within the FTA requirements and operation of the subway is not anticipated to have adverse impacts with the implementation of mitigation, including areas where the tunnels pass beneath homes and schools. During construction, low levels of noise and vibration may be experienced for a day or two as each of the two TBMs pass under a given location. In addition, as the tunnels are driven, construction trains bring supplies to and from the tunnel heading. However, these underground construction noises will also be controlled to be within Metro criteria.

The Westside Subway Extension will not reduce the availability of BHHS for use as an emergency shelter or impact the operations of its use as an emergency shelter. Furthermore, tunneling would not prevent future development of the BHHS campus. The vertical alignment of the tunnel would be 55 to 70 feet below the ground surface (to the top of the tunnel), which would allow for construction of an underground structure over the tunnel at a later date.

These geotechnical studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site. Tunnels to the east and west of Century City pass through at least two active faults. However, there are numerous tools, designs, and construction means and methods that have been used elsewhere that can be used to safely tunnel through these fault zones.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership.
projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station and alignments and Section 8.8.4 of the Final EIS/EIR for a more detailed response to geotechnical concerns. Refer to Section 7.3 of the Final EIS/EIR and the *Westside Subway Extension Century City Station Location Report* for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and the *Westside Subway Extension Century City Area Tunneling Safety Report*. The results of further ridership studies can be found in the *Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives* and the *Westside Subway Extension Century City TOD and Walk Access Study*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
September 27, 2010

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VIA Electronic Transmittal and First Class Mail
Re: Public Review Period for Draft EIS/EIR for Westside Subway Extension Transit Corridor

Gentlemen,

The City of Beverly Hills is aware of the Notice of Availability for the Westside Subway Extension Transit Corridor Draft EIS/EIR. That notice, issued on September 3, 2010, states that the Draft EIS/EIR will be available for a 45-day public review period commencing on that date and ending on October 18, 2010.

City of Beverly Hills
455 S. Rodeo Drive, Beverly Hills, California 90210

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Your request for an extension of the public review period has been noted. Metro provided the City of Beverly Hills an extension as requested and received the official comment letter from the City of Beverly Hills on October 19, 2010. Please refer to submission #824 for responses to Beverly Hills comments.

Best regards,

Susan Healy Keene, AICP
Director of Community Development

cc: Mayor Delshad and City Council members
    Jeffry Kohl, City Manager
    David Gustavson, Director of Public Works and Transportation
    David Snow, Assistant City Attorney
Your comment in support of the Westside Subway Extension Project has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative. Only Alternatives 1 and 2 are affordable within the adopted Long Range Transportation Plan, and between them, Alternative 2 provides higher ridership and improved cost effectiveness. Additionally, Alternative 2 serves the VA Hospital and other communities west of the I-405 more effectively.

Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives and the LPA selection process.

Your comment in opposition of the Constellation North and Constellation South alignments and concerns about tunneling beneath homes and schools has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools. The Metro Board of Directors also decided to not include the Constellation South alignment between the Wilshire/Rodeo and Century City Stations as part of the LPA, but to continue to study the Constellation North and the Santa Monica Boulevard alignments. The Constellation South alignment passed beneath more residential properties than the Constellation North or Santa Monica Boulevard alignments. In addition, the Metro Board of Directors decided to not include the West or Central alignments between Century City and Westwood/UCLA as part of the LPA, but to continue to study the East alignment because the East alignment is the most direct and least expensive route between the two stations.

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tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes or structures within the Beverly Hills High School campus.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. The use of state-of-the-art pressurized closed-face TBMs for soft-ground tunneling has greatly improved the control of ground movements such that tunneling can be done with minimal surface settlements. The presence of the tunnels will neither affect the risk to buildings above them during an earthquake nor change the severity of shaking. Finally, tunnels can be constructed and operated safely in gassy grounds and oil wells do not pose an unmitigable risk to tunneling.

The additional detailed geotechnical studies also assessed soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. These studies concluded that the predicted vibration and noise levels are within the FTA requirements and operation of the subway is not anticipated to have adverse impacts with the implementation of mitigation, including areas where the tunnels pass beneath homes and schools. During construction, low levels of noise and vibration may be experienced for a day or two as each of the two TBMs pass under a given location. In addition, as the tunnels are driven, construction trains bring supplies to and from the tunnel heading. However, these underground construction noises will also be controlled to be within Metro criteria.

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These geotechnical studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site. Tunnels to the east and west of Century City pass through at least two active faults. However, there are numerous tools, designs, and construction means and methods that have been used elsewhere that can be used to safely tunnel through these fault zones.
In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station and alignments and Section 8.8.4 of the Final EIS/EIR for a more detailed response to geotechnical concerns. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment expressing support for the 30/10 Plan has been noted.

Your comment in support of the Wilshire Boulevard and the Santa Monica Boulevard alignment has been noted. Please see the response above to comment number 824-2 regarding the further analysis of the Century City Stations and associated alignments conducted during the preparation of the Final EIS/EIR.

The unanimous adoption of resolution number 12692 has been noted.

Your comment in support of the Wilshire/Rodeo and the Wilshire/La Cienega Stations has
been noted. Both stations were included in the LPA identified by the Metro Board of Directors in October 2010.

The unanimous adoption of resolution number 10-R-12725 has also been noted.
On January 12, 2010, the City Council, by Resolution No. 10-R-12725, unanimously adopted amendments to the City’s General Plan which included policies to support extension of the subway through Beverly Hills along the Wilshire Boulevard/Santa Monica Boulevard alignment with stations at La Cienega Boulevard and Beverly/Rodeo Drive.

The City of Beverly Hills with the assistance of its consultant, the firm Shannon & Wilson, Inc., has reviewed the DEIS/DEIR and is providing the following broad comments on the options studied in the document. In addition to these comments, a list of specific comments and technical questions is attached.

Alignment to Century City

Of critical importance to the City of Beverly Hills is that the “Base” alignment from the Wilshire/Rodeo station (which tunnels under Wilshire and Santa Monica Boulevards) be selected as the preferred route.

The Westside Subway Extension alignment only deviates from Wilshire Boulevard to specifically provide transit service to Century City. The City of Beverly Hills agrees that the Westside Subway Extension should have a station to serve the employment densities of Century City but not at the expense or risk of tunneling under Beverly Hills High School and residential properties. According to the DEIS/DEIR, a “Constellation station” would cost $66 million more than the “Base” Santa Monica Boulevard Century City station. We find no evidence in the DEIS/DEIR that a “Constellation” station would result in significantly higher ridership than the “Base” Santa Monica Boulevard station.

The alternative alignments in the DEIS/DEIR deviate from tunneling under Wilshire and Santa Monica Boulevards to provide mass transit to Century City. The City of Beverly Hills believes that the “Base” Santa Monica Boulevard station accomplishes the goal of providing a station in Century City. A station would provide a direct transit link to the station on the Century City Boulevard. Pedestrian amenities and/or transit circulators could provide connections to the employment centers in Century City.

The two “Constellations” alignments would involve tunneling under residential properties, the Beverly Hills High School, and the site of the Beverly Hills Oil Field. Of paramount importance is the safety and well-being of the High School’s students and faculty. There has not been adequate identification of “wild cat” or “capped” oil wells at this site. The attached comments address the City’s specific concerns, request additional studies and identification of all mitigations required for this tunneling, before any further consideration of these alternate alignments. The City Council of Beverly Hills is unanimous in its strong opposition to tunneling under Beverly Hills High School when Century City can be provided a “Base” station on Santa Monica Boulevard. In reviewing the DEIS/DEIR the City finds no conclusive evidence that proves the Santa Monica alignment not to be feasible because of seismic impact. If, however, the identified location of the “Base” Santa Monica Boulevard station is indeed determined to be problematic after further seismic study, the City of Beverly Hills strongly requests that Metro explore alternatives that do not involve tunneling under Beverly Hills High School or residential properties.

Station Locations

The City of Beverly Hills finds the DEIS/DEIR consistent with the City of Beverly Hills formally adopted recommendations with respect to the station locations at La Cienega Boulevard and Beverly/Rodeo Drives.

824-6

Your comment regarding the alignment to the Century City Station and safety of tunneling beneath Beverly Hills High School has been noted. Please see above response to comment number 824-2 regarding further study of the two Century City station locations and their associated alignments, including safety concerns.

Regarding station access and ridership projections for the Century City Station, during preparation of the Final EIS/EIR, the ridership model from the Draft EIS/EIR was further refined to assess the LPA and incorporate any changes between the Draft EIS/EIR and the Final EIS/EIR. More than ten model runs were conducted to respond to changes, perform additional analysis, and answer questions that were raised during the project development process in the Final EIS/EIR phase. The main types of refinement included feeder bus service, balanced headways and some coding refinement, to determine what changes should be included in the Final EIS/EIR model runs. The refined model predicted boardings along the new Westside Subway Extension stations are approximately 49,300 with the Century City Constellation Station, which is about 3,350 more than the predicted 45,986 boardings with the Century City Santa Monica Station. The main difference in boardings at the Century City Station is the increased walk access trips in the Constellation Station over the Santa Monica Station. The walking time between the TAZ 738 (Century City)’s centroid node and the Century City subway station is 3 minutes in the Constellation Option and 13 minutes in the Santa Monica Option. The number of jobs and jobs per square mile in the ¼ mile and ½ mile area around the Century City Stations is much higher in the Constellation Option than in the Santa Monica Option.

In addition to the refined ridership model, a supplemental ridership study was prepared to evaluate the relative accessibility of the Century City Station locations to surrounding commercial and residential development within a 1/2-mile walking distance. This data was then used to estimate the number of Westside Subway Extension riders who would walk to and from the stations. It should be noted that these ridership projections only consider those riders who walk to the station and these projections are intended to supplement the ridership forecasts. This analysis concluded that the Century City Constellation Boulevard Station attracts more Westside Subway riders compared to the station location along Santa Monica Boulevard. Based on both existing and projected future development in Century City, the Constellation Station has the highest concentration of jobs and residents within the critical 600-foot and 1/4-mile walksheds. As a consequence, the 14,005 riders estimated to walk to the Century City Station along Constellation Boulevard is approximately 72% greater than the approximately 8,145 riders expected to walk to the Santa Monica Boulevard Station. The Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to
concerns related to the Century City Station. Refer to Section 7.3 of the Final EIS/EIR and the *Westside Subway Extension Century City Station Location Report* for a comparison of the two Century City Station locations. The results of further ridership studies can be found in the *Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives* and the *Westside Subway Extension Century City TOD and Walk Access Study*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your preference for the East location for the Wilshire/La Cienega Station has been noted. On October 28, 2010, the Metro Board approved Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). At Wilshire/La Cienega, the Board selected the East Station location without a West Hollywood connection structure for inclusion in the LPA. This is the preferred station entrance location for the City of Beverly Hills because it would be located in a denser, more commercial area than the other station location to the west of La Cienega. This entrance location also would provide excellent connections to two major north-south arterials - La Cienega and San Vicente Boulevards.

The number of entrances at each station was based on the ridership projections for that station. Based on these projections, Metro would construct one entrance at each of the proposed stations, including the Wilshire/La Cienega Station, with the exception of two entrances at the Westwood/UCLA Station due to high ridership projections. The station entrance at Wilshire/La Cienega will be located on the northeast corner of Wilshire Boulevard.

Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives and the LPA selection process.

Your support of the Wilshire/Rodeo Station location has been noted.

The number of entrances at each station was based on the ridership projections for that station. Based on these projections, Metro will construct one station entrance at each of the proposed stations, including the Wilshire/Rodeo Station. The one exception is two station entrances at the Westwood/UCLA Station due to high ridership projections.

Three station entrance locations for the Wilshire/Rodeo Station were considered in the Final EIS/EIR - the Ace Gallery site, the Union Bank site, and the Bank of America site. The recommendation is to locate the entrance at the Ace Gallery site, on the southwest corner of Wilshire Boulevard and Reeves Drive. Please refer to Section 7.4 of the Final EIS/EIR for an evaluation of the station entrance locations under consideration.
The Draft EIS/EIR and Final EIS/EIR for the Westside Extension Transit project were prepared using thorough and comprehensive analysis and in accordance with the requirements of CEQA and NEPA. The New City Plan EIR (ENV-2006-1914-EIR) proposed amending the Century City North Specific Plan and approving demolition of 360, 964 square feet of office at 1801 Avenue of the Stars and 1930 Century Park West. This proposal includes constructing a new 49 story building with a new shopping center, office space, and residential units. The 10131 Constellation Boulevard EIR (ENV-2004-6269-EIR) proposed development of 483 condominium units in three separate buildings at the northeast corner of Avenue of the Stars and Constellation Boulevard. The West Los Angeles Community Plan and General Plan for the City of Los Angeles provide that Century City develop as one of several high-intensity centers. The LPA would support this goal as well as serving both development projects. The station entrance proposed at the northeast corner of Avenue of the Stars and Constellation Boulevard could be integrated into future development on that site and use of the property for a construction staging area would be temporary. The Century City station would help accommodate existing and future transportation needs of the area by reducing automobile usage and providing opportunities for joint development, and enhancing regional connectivity. The LPA would not result in adverse indirect effects associated with land use compatibility. Please refer to Section 4.1 Land Use of this Final EIS/EIR for further discussion of potential impacts of the Project related to land use and development.

Your comment about the Beverly Hills Lineament has been noted. During the Final EIS/EIR phase, Metro conducted further geotechnical studies to supplement the studies conducted during the Draft EIS/EIR. These studies concluded that both the Santa Monica fault zone and the WBHL in the Century City vicinity are active fault zones and each fault zone is capable of generating earthquakes of M7 or greater with average surface displacements of 3 to 6 feet. Moreover, there is no knowledge of where either of these faults resides in their respective seismic cycles.

Santa Monica Boulevard effectively lies within the Santa Monica Fault zone from west of Century Park West to east of Avenue of the Stars. The originally proposed Santa Monica Boulevard Station at Avenue of the Stars would be directly within the fault zone. The WBHL is a wide fault zone with several well-defined strands situated along the eastern margin of Century City. It is the inferred northern extension of the active Newport-Inglewood fault zone. The WBHL terminates the active Santa Monica Fault to the east. The refined location of the Santa Monica Station at Century Park East would straddle the WBHL. No evidence of faulting was found on the Constellation Boulevard Station site.

In summary, both of the Santa Monica Boulevard Station options are located within active fault zones, but the Constellation Boulevard Station site is located outside zones of active faulting and can be considered a viable option.
The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and Section 4.8 of the Final EIS/EIR. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment requesting additional geological and geotechnical studies has been noted. As described in the response to comment number 842-2, extensive geotechnical studies were conducted during the preparation of the Final EIS/EIR. The studies were conducted for both the Century City Santa Monica Station and the Century City Constellation Station as well as the associated alignments for each station.

Please refer to Section 4.8 of the Final EIS/EIR for a discussion of geotechnical analysis. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and the *Westside Subway Extension Century City Area Tunneling Safety Report*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment requesting additional geotechnical studies for the Beverly Hills Lineament has been noted. Please see the above response to comment number 824-10 regarding the Beverly Hills lineament.

Your comment regarding the risks of tunneling near oil wells have been noted. Tunnels, through known oil well fields, have been safely constructed with no adverse incidents with either hazardous gas or oil casings. In recent Los Angeles tunneling history, there have been no oil well incidents related to tunneling, and oil well casings have been safely removed and re-abandoned.

During the Draft EIS/EIR, known oil fields and documented active or abandoned oil wells were identified from published oil well maps. Table 4-45 in the Draft EIS/EIR identifies oil wells (abandoned and active) that may be located within 100 feet of the proposed tunnel or station, as well as those that may be located within the proposed tunnel alignment. The oil fields themselves are much deeper than the potential subway tunnels. Shafts for existing active and abandoned oil wells have been mapped in the vicinity of the project alignment along with other utilities such as sewer, water, gas, and electric lines.

During the preparation of the Final EIS/EIR, a comprehensive study of all available...
information found that there was one mapped abandoned oil well within the proposed tunnel alignment. According to the state’s records, the location of this well is beneath a parking structure on Century Park East and does not lie within the Beverly Hills High School (BHHS) campus. The magnetic survey program indicated that the mapped locations of abandoned oil wells could be inaccurate by 50 to 200 feet.

A geophysical (magnetic) survey was performed on the BHHS campus to detect metal, which would indicate the presence of an abandoned oil well casing. The survey identified only one anomaly on the BHHS campus that is close to the alignment. It is on the west edge of the lacrosse field and is located 5 to 10 feet north of the tunnel envelope. The anomaly may or may not be a well casing, but it will be further investigated and addressed appropriately as described below.

For exploration beneath the BHHS buildings during the next phases of design, horizontal directional drilling (HDD) investigation will be conducted along the alignment at tunnel level. A magnetometer probe survey will be conducted in the drilled hole to detect metal casings so that if found, they can be re-abandoned properly below the tunnel depth prior to tunneling. Moreover, during tunnel construction in Los Angeles, magnetometer surveys have been conducted in probe borings extending in front of the TBM to ensure that obstructions, such as well casings, are detected before they are reached by the TBM. In suspected oil field areas, probing of the tunnel zone will be carried out by HDD either before tunneling or ahead of the face during tunneling. To ensure that these additional studies are conducted, the following mitigation is included in the Final EIS/EIR.

- **CON-53—Further Research on Oil Well Locations**

With implementation of this mitigation measure, oil wells do not pose a risk to tunneling for the project. Abandoned oil wells have been encountered in the past during tunneling in Los Angeles. Procedures have been developed to evaluate the well conditions and safely re-abandon them. Metro has experienced no gas incidents related to encounters with oil well casings during tunnel excavation on other projects.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of oil wells. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and the *Westside Subway Extension Century City Area Tunneling Safety Report*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment regarding property values has been noted. Since the LPA will improve transit service in the Study Area, research suggests that it is likely that properties within walking distance of the stations will realize value premiums over similar properties that are farther away. Based on studies of other regions with transit systems (i.e., San Francisco, San Diego, and San Jose, California; New York, New York; and Portland, Oregon), an average home price increase of 6.4 percent within one-half mile of each transit station may be experienced. Although most studies on real estate value impacts from transit show increases in value, they cannot explicitly isolate transit benefits from other market forces that affect real estate values.

Value increases within proximity of a transit station are realized in sales price as well as rent premiums. For residential properties, these increases resulted from potential commute or recreational travel time savings and associated vehicle cost reductions (including both reduced mileage as well as a reduction in the number of cars owned by the household). Negative impacts on property values from transit (termed “nuisance” effects) also can occur but are not anticipated to result from this Project. Measurable noise impacts from vehicles, increased foot traffic, adjacent structures, transit-associated parking, and increased bus traffic interfacing with transit stations can reduce the desirability of properties near a fixed guideway station. Such nuisance effects will most likely occur in areas where value is not attributed to the accessibility improvements that transit provides. This does not appear likely within the Study Area, as stations are planned for areas that are already densely developed and near major roads and bus routes.

All residents and businesses displaced as a result of the LPA will be given advance written notice and will be informed of their eligibility for relocation assistance and payments under the Uniform Relocation Assistance and Real Property Acquisition Policies Act. In areas where the subway operates under private property, Metro will work with the property owner to secure a subsurface easement. The following mitigation measures will be implemented to ensure just compensation for acquisitions and easements:

- CN-1—Relocation Assistance and Compensation
- CN-2—Propose Joint-use Agreements
- CN-3—Compensation for Easements

Please refer to Sections 4.2.2, 4.2.3, and 4.2.4 of this Final EIS/EIR for a discussion of the economic and fiscal impacts of the Project, including property acquisitions and easements. Refer to the Westside Subway Extension Economic and Fiscal Impacts Analysis and Mitigation Report for a more detailed discussion of property value impacts.
Your comment regarding noise and vibration during operation has been noted.

Subway tunnels are typically at least 50 to 70 feet below the surface to the track depth. As a result, noise and vibration are not typically noticeable at the surface. In the Beverly Hills, Century City, and Westwood areas, the proposed subway tunnels would generally be deeper than this in the areas where it would pass beneath homes and schools. For example, at Beverly Hills High School, the track depth would be 75-80 feet below the first floor of the school buildings. In Westwood, the track depth is more than 100 feet deep in most places. Since the first segment of the subway opened in 1993, Metro has received no complaints about noise or vibration due to subway operations.

Additional detailed geotechnical studies were conducted during the Final EIS/EIR phase to assess soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. This included measurements at the Beverly Hills High School site and in its buildings, as well as in the residential area between the Century City and Westwood/UCLA Stations.

These studies concluded that the predicted vibration and noise levels are within the FTA requirements, and tunnel operation is not anticipated to have adverse impacts with the implementation of mitigation. Noise from operation of the LPA from such sources as station ventilation system fans, emergency ventilation fans, traction power substations, and emergency generators will be designed to meet the noise-level limits specified in Metro Rail Design Criteria and will not result in any noise impacts. There are no vibration-sensitive receivers along the LPA that are predicted to exceed the FTA ground-borne vibration criteria.

Three locations along the LPA were identified where exceedance of the FTA ground-borne noise criteria will occur due to train operations along tangent track or through crossovers, if mitigation measures are not implemented. These locations are the Wilshire Ebell Theatre, an apartment building on Wilshire Boulevard at Orange Drive, and the Saban Theatre. To mitigate the potential for ground-borne noise impacts at these three locations, the following mitigation measures will be implemented:

- **VIB-1**—High compliance direct-fixation resilient rail fasteners will be incorporated into the design of the trackwork at the Wilshire Ebell Theatre and the Saban Theatre, which will reduce ground-borne noise by 5 to 7 dBA.
- **VIB-2**—A low impact crossover such as a moveable point frog or a spring-loaded frog will be used in the design of Wilshire/La Brea No. 10 double crossover for the apartments, which will reduce ground-borne noise by 5 to 6 dBA.

With these mitigation measures, there are no vibration-sensitive receivers that are predicted to exceed the FTA ground-borne vibration criteria during operation. Mitigation
measure VIB-2 was added subsequent to the Draft EIS/EIR due to the additional studies conducted during preparation of this Final EIS/EIR.

Should future underground construction be considered that would place a school building foundation closer to the tunnel, mitigation measures could be implemented to reduce ground-borne noise and vibration impacts. To mitigate such noise impacts, a high-compliance direct-fixation resilient rail fastener can be incorporated into the track work.

Results of these additional noise and vibration analyses and mitigation measures can be found in Section 4.6 of this Final EIS/EIR and the *Westside Subway Extension Noise and Vibration Study*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

The evaluation of the Alternatives and Options in the Draft EIS/EIR took into consideration all of the goals and objectives listed in Chapter 2. Cost effectiveness, feasibility, and public acceptance are only some of the numerous goals that the project was evaluated for. All of the goals and objectives including consideration of environmental impacts were balanced to identify the Alternatives to carry forward or eliminate. Please refer to Chapter 7 of the Draft EIS/EIR for detailed evaluation of Alternatives and Options.

Your comment stating that you do not oppose the Century City Constellation Station provided the alignment from Wilshire/Rodeo stays under Wilshire and Santa Monica Boulevards has been noted.

On most transit tunnel projects, significant portions of the alignment are constructed adjacent to or beneath buildings. The LPA passes beneath homes and schools in these neighborhoods because the curve radius required for subway tunnels is much wider than that required at a typical surface street intersection. The current LPA alignment minimizes tunneling under buildings to the east and west of both the Century City Stations. The station position on Constellation Boulevard requires the tunnel alignment to be under the south portion of Beverly Hills High School Building B in order to reach the station location. There is no reasonable tunnel alignment that does not pass under homes in Beverly Hills or structures within the Beverly Hills High School campus.

As part of the LPA selection, the Metro Board of Directors did not include the West Hollywood connection structure in the LPA. Therefore, this structure was not analyzed in the Final EIS/EIR and the requests for additional information is not necessary.
Your comment about the vent shaft near the connection structure has been noted. The vent shafts, as discussed in the Draft EIS/EIR, are emergency ventilation shafts with dampers, fans, and sound attenuators generally placed at both ends of a station box for primarily for exhausting smoke in the case of a fire. The vent shafts are also required in tunnel segments with more than 6,000 feet between stations to meet fire/life safety requirements.

The Project, if the LPA is implemented, would be electrically powered. As such, the Project is not anticipated to increase diesel traffic within the study area and is considered a project not of air quality concern. Since the Project is electrically-powered, there would also be no air quality emission impacts related to the vent shafts.

At the time of the Draft EIS/EIR preparation, vent shafts were identified as project elements that might be needed due to fire/life safety procedures in accordance with National Fire Protection Association 130 (Standard for Fixed Guideway Transit and Passenger Rail Systems) and operating policies. They were identified as such in certain areas to maintain train throughput for increased headways of 24 to 30 trains per hour. During the preparation of the Final EIS/EIR, it was determined that mid-line vent shafts would not be required.

Please see the above response to comment number 824-18 regarding the connection structure. No acquisitions related to the connection structure would be required as part of the LPA, and Metro no longer plans on acquiring the properties identified in the comment.

Please see the above response to comment number 824-18 regarding the connection structure.

The Draft EIS/EIR showed that there is a market for transit improvements serving West Hollywood, and this corridor is included in the Strategic Element of the 2009 Long Range Transportation Plan. Should funding be identified and secured, further study could be done to identify a project that would be competitive under Federal funding criteria. These additional studies could include further analysis of the best location and approach to connecting the West Hollywood branch and the Wilshire branch. Furthermore, the Metro Board of Directors determined that the cost of the connection structure is not sufficiently justified when there may be alternative, less costly solutions to serve the West Hollywood transit market, such as a light rail line.
Your comment regarding additional analysis of construction impacts has been noted. Section 4.15 and Section 3.8 of the Final EIS/EIR includes supplemental analysis of the construction impacts of the LPA.

Your comment regarding construction impacts to local businesses and communities has been noted. Construction will have temporary impacts on communities, including commercial and industrial businesses, particularly those near or adjacent to construction sites. Street closures are expected to impact mobility and access to community facilities, as much of the construction activity will be centered on Wilshire Boulevard, which is a central point of access for the neighborhoods. Sidewalk space may be obstructed temporarily for station and alignment construction, thereby reducing business access but additional access will be maintained to businesses and residences at all times. In addition to temporary street and sidewalk closures, construction activities will also reduce on-street and off-street parking. This could affect access to and profitability of existing businesses as customers may choose to avoid ongoing construction. Business impacts could also include reduced visibility of commercial signs and business locations. These construction impacts to neighborhoods and communities will be temporary adverse impacts, but the following mitigation measures will reduce the adverse effects for all adjacent neighborhoods:

- CON-1-Signage
- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
- TCON-4-Transportation Management Plan
- TCON-7-Parking Management
- TCON-8-Parking Monitoring and Community Outreach
- TCON-10-Pedestrian Routes and Access
- TCON-11-Bicycle Paths and Access

With implementation of these mitigation measures, there will be no adverse effect to communities or neighborhoods during construction.

The construction staging and laydown areas are identified in Section 2.6 and Appendix C of the Final EIS/EIR. It is noted that The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, as amended (Uniform Act), mandates that certain relocation services and payments be made available to eligible residents, businesses, and nonprofit organizations displaced as a direct result of projects undertaken by a Federal agency or with Federal financial assistance. The Uniform Act provides for uniform and equitable treatment for persons displaced from their homes and businesses and establishes uniform and equitable land acquisition policies. For more information refer to Section 4.2.2.

Refer to Section 4.15 and Section 3.8 of the Final EIS/EIR for more detailed information on construction impacts and a complete list of mitigation measures to reduce visual quality, air...
824-22
quality, noise and vibration, and hazardous materials impacts during construction. All mitigation measures are also listed in Appendix I - Mitigation Monitoring and Reporting Plan.

824-23
Your comment about the construction mitigation needing to be revisited is correct. The report you cite was labeled "final" in terms of this phase but updated and new reports will be required as the project moves into implementation. Construction mitigation was identified as part of the Final EIS/EIR (please see Section 4.15 and Section 3.8 for these mitigations). These mitigation measures identify ongoing coordination with local jurisdictions as mitigation. The mitigation is compiled into a Mitigation Monitoring Plan that would be prepared prior to the start of construction. The Mitigation Monitoring Plan is then revisited on a quarterly basis by the Federal Transit Administration during the entire period of construction. The ongoing coordination with agencies is an important component of the project.

824-24
Your comment regarding construction impacts to residential neighborhoods has been noted. Please refer above to response to comment number 824-22 for information on economic losses during construction and proposed mitigation.

Metro has always been committed to maintaining business and residential access during construction. Construction impacts will be temporary and limited in areas as construction proceeds along the length of the Locally Preferred Alternative. Metro will coordinate with affected residents and businesses prior to construction. A detailed survey of community stakeholders and businesses will be conducted. A construction safety campaign will be developed and community response protocols (notification of construction activities, hot lines, etc.) will be produced. A public involvement plan will be developed prior to each construction phase and will be tailored to the construction phase. Metro will maintain the Project website, which will provide information to the public regarding construction phasing. Metro will develop a program tailored for different locations and needs. The program will involve signage and marketing to assistance to businesses, identification of parking alternatives, and other measures.

Metro also considers the cumulative impact of multiple projects in the Study Area under construction at the same time as the subway extension. Careful coordination will occur with local jurisdictions to ensure that potential impacts from the simultaneous construction of multiple projects are addressed and mitigated to the extent feasible.

Traffic impacts associated with LPA construction include reduced roadway traffic lanes and temporary street closures that could result in major traffic disruptions and bottlenecks. These impacts are associated with contractor work and storage areas, stations, crossovers,
mining entry/exit locations, TBM operations and support activities, truck haul routes, transportation of oversized construction materials, station entrances, station appendages, grout injection, and drop holes for the LPA and are detailed in Section 3.8.2 of this Final EIS/EIR.

Subway stations are built by excavating the site for the station box and then building the station below ground. If the station is built under a street, it is covered over with concrete decking during construction to allow traffic to continue to flow overhead. Traffic will be disrupted at the beginning of station construction to allow for initial excavation and installation of the concrete decking, and again at the end to remove the decking and reconstruct the street. The Traffic-Control Activities during Station Construction table in Section 3.8 details the traffic-control activities during station construction and the duration of each activity.

Anticipated truck haul routes consist of major city arterial streets that trucks will use to transport spoils, muck, material, and equipment between the construction laydown site locations and the offsite disposal location using the nearest freeway interchange. To minimize peak-period traffic disruptions, haul truck activity will occur during off-peak and nighttime periods. These routes generally follow major commercial streets and avoid residential areas to the greatest extent possible. The proposed routes identified are provided in Section 3.8 of this Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report. The routes may be updated and revised once additional information, such as construction sequencing, is finalized. In addition, the proposed routes will be subject to the approval of Metro and appropriate departments at Federal, State, and local agencies. The routes will be finalized in coordination with local jurisdictions and will be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods.

TBM components will be transported to the tunnel construction site by truck. Several oversize deliveries will be required, some during nights and weekends. However, these large component deliveries are limited to the initial setup period for the TBM, as well as during the removal period. If a TBM is re-used to excavate a subsequent tunnel, the entire machine may be transported by road from one site to the next. This would require full or partial road closures, typically at night.

Following completion of the Project, if physical damage to haul routes was found, affected roads will be treated in a manner that returns affected facilities to pre-construction conditions. This work will restore the street or ground surface to its original condition, or better. Site restoration operations will closely follow completion of the station structures. To maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic.
Backfill material will be trucked in, placed, and compacted. During backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks will be restored, and the permanent street will be constructed, including paving, striping, and signage. Streets, sidewalks, and landscaping will be restored in accordance with City standards.

To minimize impacts to traffic circulation, the following mitigation measures will be implemented during construction:

- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
- TCON-4-Transportation Management Plan
- TCON-5-Coordination with Planned Roadway Improvements

TCON-2, TCON-3, TCON-4, TCON-5 were added during this Final EIS/EIR phase based on additional analysis of construction impacts on traffic circulation and concerns raised by the public. With implementation of the mitigation, construction-related adverse effects on traffic circulation will be reduced for adjacent commercial areas and residential neighborhoods. Although the construction impacts on traffic circulation identified will be temporary, impacts and/or residual impacts after mitigation will remain significant and unavoidable during the construction period.

Please refer to the Westside Subway Extension Construction Traffic Analysis Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports

Your comment about groundwater contamination has been noted. Tunnels will be excavated to a great extent below the ground water table. Pressurized face tunnel boring machines will be used for excavation of the tunnels, and a gasketed tunnel lining will be installed as the tunnel shield advances, so that inflow of water into the tunnel, and thus, potential for lowering the ground water table above the tunnel route will be minimal. Stations will be excavated partially above and below the water table. Local dewatering around the station perimeter may be required to allow for safe and dry conditions during construction. If dewatering is to be implemented, groundwater level monitoring will be performed and impact from dewatering on the ground surface (settlement) and/or adjacent structures will be monitored and evaluated. The following mitigation measures will be implemented during construction to reduce impacts related to dewatering:

- CON-47-Use of Pressurized-face TBM for Tunnel Construction
- CON-48-Preconstruction Survey, Instrumentation, and Monitoring
With implementation of these mitigation measures, impacts related to dewatering and groundwater contamination will be reduced to less than significant.

Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of groundwater. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment has been noted. Continuous coordination with the City of Beverly Hills will take place throughout the design process. Metro will share design and engineering drawings and plans, construction plans, and operational plans with the City of Beverly Hills. Once construction lay down areas, site ingress/egress access points and construction sequencing of activities are identified and refined, truck haul routes, off-peak period road closures, detour routes, and worksite traffic control plans will be developed and submitted to the City staff for review and comment to ensure consistency with their guidelines governing traffic flow and closure requirements during construction activities.

Please see the above response to comment number 824-26 regarding continued coordination with the City of Beverly Hills on construction activities.

Contractor staging areas (also referred to as "laydown areas") will be necessary for tunnel construction, stations, and ancillary facilities. Off-street space will be needed for setup, insertion, operation, and extraction of equipment and materials to the tunnel and station excavations. Approximately one acre is necessary for each station construction staging area and up to three acres is necessary for a typical tunnel-boring machine launch site.

Work areas will be needed to support tunnel excavation operations, including processing and removing tunnel spoils (excavated materials), handling precast concrete tunnel-lining segments, and tunnel utilities (such as ventilation, water supply and return, and power supply). In-street work areas will only be used when no off-street alternatives exist.

Temporary easements, typically a portion of the sidewalk, traffic lanes, and/or parking
824-32

areas, may be required at various locations for staging.

The proposed staging areas were addressed as part of the Draft EIS/EIR in the Westside Subway Extension Real Estate and Acquisitions Technical Report, in Chapter 2 and Appendix C of the Draft EIS/EIR. These proposed areas were refined and/or eliminated from further consideration for staging during the preparation of the Final EIS/EIR. The staging areas under consideration for the LPA in the Final EIS/EIR are identified in the Westside Subway Extension Acquisitions and Displacement Supplemental Report, and Section 2.6 and Appendix C of the Final EIS/EIR.

It is important to note that several construction staging site alternatives are under consideration at a few station locations in this Final EIS/EIR. Selection of the construction staging site will consider where the station entrances could be co-located, environmental impacts, and cost, as well as other factors. The decision will be made by the Metro Board of Directors following circulation and public review of this Final EIS/EIR.

Please refer to the response above to comment number 824-22 regarding construction mitigation measures.

All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

824-33

Revisions were made to the operational plans associated with the Westside Subway Extension during the preparation of the Final EIS/EIR. As part of those revisions, emergency generators were identified for two station locations: at the Wilshire/La Brea Station and the Westwood/VA Hospital Station. An emergency generator will not be located at the Wilshire/La Cienega Station—or anywhere else within Beverly Hills—and therefore there would be no impacts at this station associated with an emergency generator. Please refer to Section 2.6 of the Final EIS/EIR for a description and locations of the emergency generators.
Your comments on local emergency responders and fire suppression within the subway have been noted. The police and fire protection services are generally regulated by local agencies. In the study area these services will be regulated primarily by the policies and agencies of the Cities of Los Angeles, Beverly Hills, and Los Angeles County. There are 3 police facilities in the study area; Los Angeles County Sheriff’s Department West Hollywood Station is located approximately at Santa Monica Boulevard and North San Vicente Boulevard is immediately adjacent to the Westside Corridor. There are 9 fire stations located in the study area; City of Los Angeles Fire Department Station 29 and Los Angeles County Fire Department Station 8 are immediately adjacent to the Westside Corridor. There are approximately 32 hospitals and health centers located in the study area. Of these, the Cedars Sinai Medical Center, Century City Hospital, the Veterans Administration Hospital, St. John’s Hospital and Health Center, and the Santa Monica Hospital are located immediately adjacent to the Project.

Mitigation measure SS-8 in the Final EIS/EIR states that Metro will develop and implement a comprehensive emergency preparedness plan, employee and emergency responders training, and system design features. To ensure that the emergency responders can respond effectively in emergency situations, emergency procedures will be developed in the Standard Operating Procedures (SOP’s) of the operating rail system. A committee will be established consisting of representatives from Metro and the participating agencies which serve the areas traversed by the system. The committee will be charged with the responsibility of guiding Metro and the participating agencies in developing and following the necessary emergency procedures in the areas of fire and life safety that require immediate response. Metro and participating agency personnel will be trained to function efficiently during an emergency. They will be knowledgeable of all aspects of the SOP’s and the incident command system. Before opening of the system for revenue operation exercises and drills will be conducted to prepare Metro and participating agency personnel for emergencies. This will ensure that the first responders can respond to all anticipated emergency situations safely and effectively.

Please refer to Section 4.12, Safety and Security, of the Final EIS/EIR for an analysis of emergency response for the Westside Subway Extension and proposed mitigation measures.

During the course of construction, Metro’s contractor will carry in excess of $100 million in liability insurance to cover bodily injury and property damage to third parties resulting from the contractor’s negligent acts. After construction, Metro will maintain a package of commercial insurance and self-insurance sufficient to pay for bodily injury and property damage to third parties related to Metro’s negligent operations.
824-36
Your comment on emergency response has been noted. The Metro Transit Security Bureau has the primary responsibility for police services for the system. This service is currently provided by contract by the Los Angeles County Sheriff's Department. Also, as necessary, assistance may be requested from the local jurisdiction's police force, but these incidents would be rare and would not require the local police forces to hire additional staff. Local fire departments would provide fire protection for the Project and would serve as the first responders in the event of a fire on the Metro system. In addition to fire suppression, the local fire department would also be the first response agency for medical treatment.

Please refer to response above to comment number 824-34 regarding emergency preparedness plan and employee and emergency responders training.

824-37
Your comment on emergency response times has been noted. For all public services, response time during emergencies is critical and, for most cases, access to the sites of emergencies requires the use of public roadways. Overall, the Project will improve the operation of the roadway network by reducing congestion, which will improve emergency response times. The comprehensive Emergency Preparedness Plan (EPP) has been developed and integrated with Metro's existing EPP procedures. The overall objective of emergency preparedness and planning is to ensure fast and efficient response to emergencies or disasters in a manner that minimizes the risk to the safety and health of passengers, employees, and emergency response personnel as well as unnecessary property loss. The EPP will establish the roles and responsibilities that will be carried out not only by Metro personnel, but also by various emergency response agencies in the event of a fire or security emergency. A Fire Life Safety Report has been developed to educate emergency responders of safety features in the proposed tunnels and stations, the design specifics related to emergency access and egress, and the security and fire suppression systems. During the testing phase of the Project, special training for emergency response personnel will be required. Metro will provide training to local emergency responders for practice of emergency procedures. Training will include how to access vehicles under various conditions, how to work around the direct current electrical power, and how to access stations and tunnels.

824-38
For the Westside Subway Extension, the noise and vibration impact criterion was applied as the CEQA threshold for determining significant noise impacts. The criterion used to assess these potential impacts was defined by the Federal Transit Administration. The FTA noise criteria and mitigation measures are generally consistent with the Beverly Hills General Plan standards.

Results of additional noise and vibration analyses conducted during the preparation of the
Final EIS/EIR and mitigation measures can be found in Section 4.6 of this Final EIS/EIR and the Westside Subway Extension Noise and Vibration Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
824-39
There will be no mid-line vent shaft constructed along the Westside Subway Extension, including in Beverly Hills.

824-40
The commonly accepted operational analysis methodology from the 2000 Highway Capacity Manual (HCM) (Transportation Research Board, 2000) was used to estimate delay and corresponding level of service at each study intersection. Thresholds of significance used to assess impacts were adopted based on previous transit infrastructure projects. New thresholds adopted by the City of Beverly Hills would not affect the traffic impact analysis conclusions, due in part to the overall beneficial impacts of the Project on traffic and the different level of service methodology used in the study.

Metro discussed the HCM methodology with the City of Beverly Hills at the beginning of this study and Beverly Hills agreed to this methodology for determining level of service.

824-41
Please see the above response to comment number 824-40 regarding traffic impact methodology. The revised impact criteria adopted by the City of Beverly Hills would not change the results of the traffic impact analysis. For traffic impacts, the HCM methodology was used and, overall, the project resulted in a beneficial impact on traffic operations in the Study Area.

824-42
Please see the above response to comment number 824-40 regarding traffic impact analysis methodology. Metro used the HCM methodology to determine all traffic related impacts. Please refer to the Westside Subway Extension Construction Traffic Analysis Report and Section 3.8 of the Final EIS/EIR for a detailed analysis of all construction related traffic impacts.
Your comments about transit ridership have been noted. Transit ridership projections for the forecast year of 2035 were developed using the travel forecasting model developed by Metro and the Southern California Association of Governments, which followed Federal Transit Administration (FTA) guidance and meets FTA’s goals: to have the model tell a coherent story about travel behavior, reliably reproduce current travel patterns, and ensure a rational response to change. Metro's travel demand model is a resident model stratified by three income levels and includes the three standard trip purposes of Home-Based Work, Home-Based Other, and Non-Home Based, plus the additional trip purpose of Home-Based University. The model does not include tourism or special events. The modeling effort included FTA's participation throughout the process and a final review was held in September 2009 during which FTA concurred that the model was ready for application to this Project. The model was calibrated with 2001 and 2006 on-board survey data and then validated against transit ridership information to ensure it properly represents travel activity for the Los Angeles County and regional transportation system.

The Metro forecasting model uses “best practices” for urban travel models in the U.S. and reflects changes in land use, socioeconomic conditions, trip flows and transportation network improvements. The model is based on a set of realistic input assumptions regarding land use and demographic changes between now and 2035 and expected transportation levels-of-service on both the highway and public transit system. Key data used by the model include the following:

- Southern California Association of Government (SCAG) forecasts of population and employment densities
- SCAG-forecasted socio-demographic characteristics of travelers
- Person-trip flows
- Characteristics of the roadway and transit systems, including travel times, costs, and capacity reflective of No Build, TSM, and Build Alternatives

A sub-area validation was performed on the base year VISUM model to ensure the model produced traffic forecasts that reasonably resemble observed traffic counts obtained in the project Study Area in 2009. Traffic forecasting models are typically calibrated by adjusting model parameters until they are validated by applying a set of criteria that compare model volumes to actual counts. In order to more accurately forecast future traffic volumes, the base year VISUM model was calibrated and validated to 1,391 intersection approach and departure link volumes as well as to 1,211 intersection turning movement volumes.

Please refer to Section 3.2.1 of the Final EIS/EIR for more information on ridership forecasting methodology. In addition, the Los Angeles Mode Choice Model: Calibration/Validation Report provide detailed information about the ridership model and the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives provides a summary of the updated results prepared for the Final EIS/EIR. The Technical Report Summarizing the Results of the Forecasted Alternatives is available on the Metro Westside Subway Extension Project website.
The comment has been noted and continuous coordination with the City of Beverly Hills will take place throughout the design process. As construction lay down areas, site ingress/egress access points and construction sequencing of activities are identified and refined, programmed roadway improvements such as the Santa Monica Boulevard improvement project will be reviewed and taken into consideration. It is anticipated that this roadway improvement project will be in place prior to the beginning of construction activities on the Westside Subway Extension Project even under the 30/10 Plan.

Your comment regarding Burton Way/S Santa Monica Boulevard has been noted. This street is not currently classified as an arterial but is recognized as a major thoroughfare. Metro coordinated with the City of Beverly Hills in identifying which intersections within Beverly Hills were analyzed for traffic impacts in the Final EIS/EIR. Three of the intersections analyzed in Beverly Hills are along Burton Way/S Santa Monica Boulevard and these intersections are identified in Section 3.5 of the Final EIS/EIR.

The N Santa Monica Boulevard Improvement project is a TSM measure and has the potential to improve traffic flow conditions on Santa Monica Boulevard between Century City and West Hollywood in Beverly Hills. No new traffic impact analysis is needed due to the potential benefits of the project. The project has the potential to improve transit operations along the corridor and provide enhanced connecting/feeder service to the Century City Station.

Section 3.7.1 of the Final EIS/EIR has been updated to indicate that the City of Beverly Hills is in the process of preparing a bike plan for implementation.

Your comment has been noted. Pedestrian and bicycle facilities listed in Section 3.4.6 of the Draft EIS/EIR are part of the Affected Environment which is the existing conditions assessment of the Study Area. The text has been revised in Section 3.7.1 of the Final EIS/EIR.

Rail would attract trips from various modes but the largest shift would come from auto trips. This would apply to all the Build Alternatives in the Draft EIS/EIR and the LPA in the...
The population figures provided in Chapter 4 of the Draft EIS/EIR are from the U.S. Census Bureau and are used to describe the existing residential make up of each community in the Study Area. Each community experiences daily fluctuations in population as people travel to destinations throughout the area.
Your comment has been noted, and an addendum to the Community and Neighborhood Impacts Technical Report has been prepared. The addendum includes the suggested language summarizing the relevant policies from the City of Beverly Hills General Plan adopted on January 12, 2010.

- **LU 3.1 Conservation.** Conserve existing residential neighborhoods and non-residential areas where new development builds on and enhances the viability of existing business sectors that are the City's strengths, promotes transit accessibility, is planned to coincide with infrastructure funding and construction, and designed to assure transitions and compatibility with adjoining residential neighborhoods. (Imp. 1.3, 2.1, 2.2)

- **LU 14.1 City Form.** Accommodate a balanced mix of land uses and encourage development to be located and designed to enable residents access by walking, bicycling, or taking public transit to jobs, shopping, entertainment, services, and recreation, thereby reducing automobile use: energy consumption, air pollution, and greenhouse gases. (Imp. 1.2, 2.1)

- **LU 17.2 Regional Coordination.** Cooperate with adjoining and regional agencies to jointly plan land uses, transportation, and infrastructure that provide a cohesive and integrated strategy to accommodate growth that is environmentally, economically, and socially sustainable. (Imp. 7.1, 7.2)

- **ES 3.3 Multi-modal Transportation.** Encourage and promote the use of existing public transportation to link these areas with the Triangle while developing alternative means of public transportation to ease congestion and facilitate successful, high-quality development throughout the City. (Imp. 5.7)

- **CIR 2.1 Metro Subway Extension.** Support the extension of the Metro subway extension through the City along Wilshire Boulevard with stations at Beverly/Brodeo and La Cienega to enhance transit service and increase transit ridership within the City and the West LA region. Explore other stops as appropriate. (Imp. 5.7)

- **CIR 2.1c Linking Transit and Development.** Encourage appropriate development that may include parking for local transit riders, local-serving retail, high-end retail, restaurant and supporting uses in and around transit stops and stations. (Imp. 3.7)
Your comment has been noted. The reference to the City of Beverly Hills General Plan has been included in the Addendum to the Westside Subway Extension Land Use Technical Report.

Your comment on the legibility of the Westside Subway Extension Noise and Vibration Technical Report has been noted. During preparation of the Final EIS/EIR, additional noise and vibration analyses were conducted. The results of the further testing can be found in Section 4.6 of this Final EIS/EIR and the Westside Subway Extension Noise and Vibration Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment has been noted. The reference has been updated in the Westside Subway Extension Parklands and other Community Facilities Supplemental Technical Report, which is available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment has been noted. The recommended revisions have been incorporated into the Westside Subway Extension Parklands and Other Community Facilities Supplemental Technical Report, which is available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
City of Beverly Hills

- Usability of proposed plazas considering topography and other landform constraints
- Fiscal impact on the General Fund for any immediately needed refurbishments and ongoing maintenance
- The existence of a deficiency in a particular sector of the City.
- Potential to improve the aesthetics along a street or in a neighborhood, or to enhance the City's gardens quality in general. (Imp. 1.3.6.1)

- OS 8.5 Urban Parks. Encourage and allow opportunities for new development to provide small plazas, pocket parks, civic spaces, and other gathering places that are available to the public to help meet recreational demands. (Imp. 1.1, 2.2)

- OS 8.7 Recreational Parkland Replacement. Protect parkland from non-recreational uses that result in loss of acreage used for recreational purposes; any loss of park land shall be replaced with acreage suitable for comparable uses so that the City's current park land acreage is not decreased. (Imp. 1.3, 2.1)

- S 3.3 Fire Protection Services. Require that new development and re-development of structures provide adequate fire safety features and responder access so as not to cause a reduction of fire protection services below acceptable, safe levels. (Imp. 2.4)
Metro regrets that you were unable to access the geotechnical appendices along with the Draft EIS/EIR. They were made available and are still on Metro’s website. They can be found at: www.metro.net/projects/westside/draft-eis-eir-sept-2010. All geotechnical or other appendices for the Final EIS/EIR are also available on Metro’s website: www.metro.net/projects/westside/westside-reports.

Your comment regarding fault rupture has been noted. During the Final EIS/EIR phase, Metro conducted further geotechnical studies to supplement the studies conducted during the Draft EIS/EIR, which concluded that both the Santa Monica fault zone and the WBHL in the Century City vicinity are active fault zones and each fault zone is capable of generating earthquakes of M7 or greater with average surface displacements of 3 to 6 feet. Moreover, there is no knowledge of where either of these faults resides in their respective seismic cycles.

Santa Monica Boulevard effectively lies within the Santa Monica Fault zone from west of Century Park West to east of Avenue of the Stars. The originally proposed Santa Monica Boulevard Station at Avenue of the Stars would be directly within the fault zone. The WBHL is a wide fault zone with several well-defined strands situated along the eastern margin of Century City. It is the inferred northern extension of the active Newport-Inglewood fault zone. The WBHL terminates the active Santa Monica Fault to the east. The refined location of the Santa Monica Station at Century Park East would straddle the WBHL. No evidence of faulting was found on the Constellation Boulevard Station site.

In summary, both of the Santa Monica Boulevard Station options are located within active fault zones, but the Constellation Boulevard Station site is located outside zones of active faulting and can be considered a viable option.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of seismic safety both during operation and construction. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment has been noted. The ground and seismic properties for Maximum Earthquake Design have been reviewed and correct and consistent information has been provided in Section 4.8 of the Final EIS/EIR. The Maximum Design Earthquake has a four percent probability of exceedance in 100 years.
Your comments about tunneling and liquefaction risks have been noted. Metro has conducted geotechnical and seismic investigations to determine those soil conditions that are subject to liquefaction. Tunnels for the Westside Subway Extension project will be mostly excavated and constructed within consolidated, dense to very dense and stiff to hard soils belonging to older alluvium/Lakewood Formation sediments, which are considered significantly less prone to liquefaction than young alluvial sediments. However, due to the presence of shallow groundwater and young surficial alluvial deposits, there may be potential liquefaction adjacent to the upper portions of some station walls at the Wilshire/La Cienega, Westwood/UCLA, and Westwood/VA Hospital Stations. Lateral spreading is not anticipated in the vicinity of the LPA.

Based on the magnitude of evaluated liquefaction, either structural design or ground improvement techniques or deep foundations to minimize these hazards will be selected. The following mitigation measures will be implemented during operation to reduce risks related to liquefaction:

- GEO 4 – Liquefaction and Seismic Settlement
- GEO 7 – Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, liquefaction risk during operation will be reduced to less than significant.

During construction, designs to minimize risk of liquefaction related damage to the excavation support system include increasing the depth of solid piles to reach non-liquefiable zones, or ground improvement to densify the soil may be provided prior to the installation of the excavation support system therefore liquefaction is not a significant impact during construction.

Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of liquefaction. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comments about ground settlement and subsidence have been noted. In recent years, Metro has employed improved tunneling techniques to minimize impacts on adjacent properties. Pressurized face tunnel boring machines developed over the past 30 years now provide reliable control of ground movements around the tunnel and have become a standard throughout the world. Behind the cutting wheel at the front of the tunnel is an enclosed chamber that is filled with the excavated soil. This provides pressure that
supports the ground in front of the tunnel face and significantly reduces the risk of surface subsidence. Using this technology, Metro recently completed 1.7-miles of twin tunnel for the Metro Gold Line Eastside Extension project, passing beneath structures with no measurable surface subsidence and no substantiated damage claims from settlement.

With regard to subsidence along the LPA, no current substantial subsidence problems related to petroleum or groundwater extraction have been identified. Therefore, the subsidence related to extraction of petroleum and groundwater is not considered a hazard to the LPA during operations. However, the potential exists for ground subsidence related to construction activities such as tunneling and dewatering at station areas along the full length of the proposed alignment and options. Therefore, construction dewatering induced subsidence poses a potentially adverse impact.

Dewatering is usually not necessary when tunneling with pressure-face TBMs. However, station construction will require excavations that will encounter the groundwater table and/or perched groundwater, dewatering may be required to complete the construction in some areas. Dewatering of the excavations made during construction could result in potentially damaging subsidence adjacent to the construction area. However, experience in much of the corridor is that the soils have previously undergone numerous cycles of ground-water fluctuation, and have therefore previously experienced the settlements associated with lowering of the ground water, and will not be expected to have significant additional settlement.

To minimize risks, prior to construction, structures along the tunnel alignment are assessed and tunneling equipment and operating criteria are selected that will best protect the structures. Ground movements are limited by monitoring and controlling critical operations of the tunnel boring machine, and, if needed, by use of supplemental ground control measures, such as grouting. Ground movements around the tunnel and at the surface are measured and nearby structures are surveyed in order to make timely adjustments and to confirm that ground movements are under control as the tunnel is advanced. The following mitigation measures will be implemented during construction to minimize any potential for ground settlement or subsidence.

- CON-47—Use of Pressurized-face TBMs for Tunnel Construction
- CON-48—Preconstruction Survey, Instrumentation, and Monitoring
- CON-49—Additional Geotechnical Exploration
- CON-50—Additional Methods to Reduce Settlement

With implementation of these mitigation measures, construction risks related to subsidence and settlement will be reduced to less than significant.

Please refer to Section 4.8 and Section 4.15 of the Final EIS/EIR for more detailed discussion of ground settlement and subsidence during operation and construction. The
results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment regarding methane gas and other subsurface hazardous gases has been noted.

Safety, both during construction and eventual operations, is one of Metro's highest priorities. It was also one of the key evaluation criteria during the Draft EIS/EIR, and has been further considered in the Final EIS/EIR phase. In 2005, an American Public Transportation Association Peer Review Panel determined that "It is possible to tunnel and operate a subway along the Wilshire Corridor safely." This conclusion was reached given the newer technology now used for tunneling, including pressurized face tunnel boring machines.

Subsurface gas is present throughout much of the Los Angeles area and is often a factor in foundation design and construction of underground structures. While tunneling for transportation has special considerations, other projects have been constructed in subsurface gas zones within the Los Angeles region, including buildings with deep parking garages and basements, storm drains, sewer projects and other utility projects along the Wilshire Corridor. In addition, Metro has safely operated the existing Metro Red/Purple Line subway for over 15 years and has successfully constructed subway tunnels where subsurface gas has been present.

Methane and hydrogen sulfide are present in high concentrations along about a 1.1 mile stretch of the Westside Subway Extension alignment along Wilshire Boulevard from about Burnside Avenue on the east to about La Jolla Avenue on the west. However, the entire LPA alignment passes through an area characterized by oil and gas fields and is within the City's Methane Zone. Therefore, the possibility of encountering gaseous subsurface conditions can be expected for any portion of the alignment, and hazardous subsurface gases pose a significant hazard for construction of the LPA.

During construction, the pressurized face tunnel boring machines isolate gas from workers and the public, while gassy soil and tar sands are handled and disposed of appropriately. Robust underground ventilation and gas monitoring systems provide additional warning and protection. In addition, the state of California's division of Occupational Safety and Health (Cal/OSHA) maintains strict safety orders for tunneling where ground is classified as "Gassy" or "Potentially Gassy." Safety measures include continuous monitoring of the environment, "spark-proof" equipment, and other means to reduce risks to workers and the
surroundings. The following mitigation measures will be implemented during construction of the LPA to reduce risks related to the presence of hazardous subsurface gases:

- CON-51 - Techniques to Lower the Risk of Exposure to Hydrogen Sulfide
- CON-52 - Measures to Reduce Gas Inflows
- CON-53 - Further Research on Oil Well Locations
- CON-54 - Worker Safety for Gassy Tunnels

The design and operation for tunnels and stations will provide a redundant protection system against gas intrusion. This will include: physical barriers to keep gas out of the tunnels and stations; high volume ventilation systems to dilute gases to safe levels; gas detection and monitoring systems with alarms; emergency ventilation triggered by the gas detection systems; additional training of personnel to respond to alarms. The following mitigation measures will be implemented during operation of the LPA to minimize risks related to subsurface hazardous gases:

- GEO-5 - Hazardous Subsurface Gas Operations
- GEO-6 - Hazardous Subsurface Gas Structural Design
- GEO-7 - Tunnel Advisory Panel Design Review

With implementation of these mitigation measures, risks associated with hazardous subsurface gases will be reduced to less than significant levels during both construction and operation of the LPA.

Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of methane gas and other subsurface hazardous gases. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the Westside Subway Extension Century City Area Tunneling Safety Report. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment about groundwater contamination has been noted. Tunnels will be excavated to a great extent below the ground water table. Pressurized face tunnel boring machines will be used for excavation of the tunnels, and a gasketed tunnel lining will be installed as the tunnel shield advances, so that inflow of water into the tunnel, and thus, potential for lowering the ground water table above the tunnel route will be minimal. Stations will be excavated partially above and below the water table. Local dewatering around the station perimeter may be required to allow for safe and dry conditions during construction. If dewatering is to be implemented, groundwater level monitoring will be performed and impact from dewatering on the ground surface (settlement) and/or adjacent structures will be monitored and evaluated. The following mitigation measures will be implemented during construction to reduce impacts related to dewatering:
With implementation of these mitigation measures, impacts related to groundwater contamination will be reduced to less than significant.

Your comment regarding the risks of tunneling near oil wells have been noted. Tunnels, through known oil well fields, have been safely constructed with no adverse incidents with either hazardous gas or oil casings. In recent Los Angeles tunneling history, there have been no oil well incidents related to tunneling, and oil well casings have been safely removed and re-abandoned.

During the Draft EIS/EIR, known oil fields and documented active or abandoned oil wells were identified from published oil well maps. Table 4-45 in the Draft EIS/EIR identifies oil wells (abandoned and active) that may be located within 100 feet of the proposed tunnel or station, as well as those that may be located within the proposed tunnel alignment. The oil fields themselves are much deeper than the potential subway tunnels. Shafts for existing active and abandoned oil wells have been mapped in the vicinity of the project alignment along with other utilities such as sewer, water, gas, and electric lines.

During the preparation of the Final EIS/EIR, a comprehensive study of all available information found that there was one mapped abandoned oil well within the proposed tunnel alignment. According to the state's records, the location of this well is beneath a parking structure on Century Park East and does not lie within the Beverly Hills High School (BHHS) campus. The magnetic survey program indicated that the mapped locations of abandoned oil wells could be inaccurate by 50 to 200 feet.

A geophysical (magnetic) survey was performed on the BHHS campus to detect metal, which would indicate the presence of an abandoned oil well casing. The survey identified only one anomaly on the BHHS campus that is close to the alignment. It is on the west edge of the lacrosse field and is located 5 to 10 feet north of the tunnel envelope. The anomaly may or may not be a well casing, but it will be further investigated and addressed appropriately as described below.

For exploration beneath the BHHS buildings during the next phases of design, horizontal directional drilling (HDD) investigation will be conducted along the alignment at tunnel level. A magnetometer probe survey will be conducted in the drilled hole to detect metal casings so that if found, they can be re-abandoned properly below the tunnel depth prior to tunneling. Moreover, during tunnel construction in Los Angeles, magnetometer surveys have been conducted in probe borings extending in front of the TBM to ensure that obstructions, such as well casings, are detected before they are reached by the TBM. In suspected oil field areas, probing of the tunnel zone will be carried out by HDD either
before tunneling or ahead of the face during tunneling. To ensure that these additional studies are conducted, the following mitigation is included in the Final EIS/EIR.

- **CON-53-Further Research on Oil Well Locations**

  With implementation of this mitigation measure, oil wells do not pose a risk to tunneling for the project. Abandoned oil wells have been encountered in the past during tunneling in Los Angeles. Procedures have been developed to evaluate the well conditions and safely re-abandon them. Metro has experienced no gas incidents related to encounters with oil well casings during tunnel excavation on other projects.

  Please refer to Section 4.8 (operations) and Section 4.15 (construction) of the Final EIS/EIR for more detailed discussion of oil wells and groundwater. The results of further geotechnical investigations conducted during the Final EIS/EIR can be found in the *Westside Subway Extension Century City Area Fault Investigation Report* and the *Westside Subway Extension Century City Area Tunneling Safety Report*. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

**824-63**

Your comment regarding noise and vibration during operation and construction has been noted.

During construction, the greatest noise impacts will occur near stations, tunnel access portals, and construction laydown areas where construction activities at the surface are concentrated. In addition, haul routes will experience increased truck traffic, which could add to traffic noise. With the exception of these areas, all other construction will occur completely below-grade. Section 4.15.3 of this Final EIS/EIR analyzes construction noise impacts and mitigation measures. When the construction site for the station box is open, noise from construction equipment will be audible at street level and result in an adverse effect. This time period will produce the highest levels of construction noise. The excavation and installation of street decking is expected to last four to five months. As the excavation continues below street level, the noise of construction will be reduced because the sides of the excavated opening will act as a sound barrier. Eventually when the surface opening is covered with temporary decking, construction noise at the surface will no longer be noticeable above the traffic noise. Therefore, the excavation of the station box will result in a temporary adverse noise effect.

To reduce the potential for noise and vibration impacts to schools associated with construction, Metro’s plans, specifications, and estimates (bid) documents will include measures to comply with the City of Los Angeles, City of Beverly Hills, and County of Los Angeles noise ordinances during construction hours. To further reduce noise impacts during construction, the following mitigation measures will be implemented:
Although mitigation measures will help to reduce noise impacts during construction, an adverse construction noise effect will remain after mitigation in the construction areas.

In addition to noise impacts, construction of the LPA could result in vibration impacts before mitigation is implemented. Impact pile driving at the station boxes will result in adverse vibration impacts. Perceptible vibration levels could be experienced within 200 feet of pile driving operations. Additionally, equipment used for underground construction, such as the TBM and mine trains, could generate vibration levels that could result in audible ground-borne noise levels in buildings at the surface, depending on the depth of the tunnel and soil conditions. Tunneling under residences and schools will occur for a limited time. The TBM tunnels between 30 and 100 feet per day. For an average residence or business, this means that the TBMs would be below the surface of that structure for no more than a day or two. Since underground construction is expected to occur continuously over a 24-hour day, there is the potential for the tunnel boring operation to be audible during nighttime sleep hours when background noise levels inside residential buildings are very low. However, as indicated, the period for this potential disruption would be limited to a few days or less and mitigation measures would be implemented to minimize impacts. The contractor will be responsible for the protection of vibration-sensitive historic buildings or cultural resource structures within 200 feet of any construction activity. To ensure that noise and vibration impacts associated with construction are below threshold levels, Metro's plans, specifications, and estimates (bid) documents will include the following measures:
If the Metro ground-borne noise limits or ground-borne vibration limits are exceeded during tunneling, the contractor will be required to take action to reduce vibrations to acceptable levels. Such action could include reducing the muck train speed, additional rail and tie isolation, and more frequent rail and wheel maintenance. However, there were no substantiated noise-level complaints made during tunneling for the Metro Gold Line Eastside Extension. Therefore, with mitigation, there will be no construction-related vibration adverse effects due to tunneling activities.

During operation, no noise or vibration impacts are anticipated following implementation of mitigation measures. Subway tunnels are typically at least 50 to 70 feet below the surface to the track depth. As a result, noise and vibration are not typically noticeable at the surface. In the Beverly Hills, Century City, and Westwood areas, the proposed subway tunnels would generally be deeper than this in the areas where it would pass beneath homes and schools. For example, at Beverly Hills High School, the track depth would be 75-80 feet below the first floor of the school buildings. In Westwood, the track depth is more than 100 feet deep in most places. Since the first segment of the subway opened in 1993, Metro has received no complaints about noise or vibration due to subway operations.

Additional detailed geotechnical studies were conducted during the Final EIS/EIR phase to assess soil conditions and determine the potential for noise or vibration impacts on the surface along the refined alignments. This included measurements at the Beverly Hills High School site and in its buildings, as well as in the residential area between the Century City and Westwood/UCLA Stations.

These studies concluded that the predicted vibration and noise levels are within the FTA requirements, and tunnel operation is not anticipated to have adverse impacts with the implementation of mitigation. Noise from operation of the LPA from such sources as station ventilation system fans, emergency ventilation fans, traction power substations, and emergency generators will be designed to meet the noise-level limits specified in Metro Rail Design Criteria and will not result in any noise impacts. There are no vibration-sensitive receivers along the LPA that are predicted to exceed the FTA ground-borne vibration criteria.

Three locations along the LPA were identified where exceedance of the FTA ground-borne noise criteria will occur due to train operations along tangent track or through crossovers, if mitigation measures are not implemented. These locations are the Wilshire Ebell Theatre, an apartment building on Wilshire Boulevard at Orange Drive, and the Saban Theatre. To mitigate the potential for ground-borne noise impacts at these three locations, the following mitigation measures will be implemented:
VIB-1—High compliance direct-fixation resilient rail fasteners will be incorporated into the design of the trackwork at the Wilshire Ebell Theatre and the Saban Theatre, which will reduce ground-borne noise by 5 to 7 dBA.

VIB-2—A low impact crossover such as a moveable point frog or a spring-loaded frog will be used in the design of Wilshire/La Brea No. 10 double crossover for the apartments, which will reduce ground-borne noise by 5 to 6 dBA.

With these mitigation measures, there are no vibration-sensitive receivers that are predicted to exceed the FTA ground-borne vibration criteria during operation. Mitigation measure VIB-2 was added subsequent to the Draft EIS/EIR due to the additional studies conducted during preparation of this Final EIS/EIR.

Should future underground construction be considered that would place a school building foundation closer to the tunnel, mitigation measures could be implemented to reduce ground-borne noise and vibration impacts. To mitigate such noise impacts, a high-compliance direct-fixation resilient rail fastener can be incorporated into the track work.

Results of these additional noise and vibration analyses and mitigation measures can be found in Section 4.6 of this Final EIS/EIR and the Westside Subway Extension Noise and Vibration Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Contractor staging areas (also referred to as "laydown areas") will be necessary for tunnel construction, stations, and ancillary facilities. Off-street space will be needed for setup, insertion, operation, and extraction of equipment and materials to the tunnel and station excavations. Approximately one acre is necessary for each station construction staging area and up to three acres is necessary for a typical tunnel-boring machine launch site.

Work areas will be needed to support tunnel excavation operations, including processing and removing tunnel spoils (excavated materials), handling precast concrete tunnel-lining segments, and tunnel utilities (such as ventilation, water supply and return, and power supply). In-street work areas will only be used when no off-street alternatives exist. Temporary easements, typically a portion of the sidewalk, traffic lanes, and/or parking areas, may be required at various locations for staging.

The proposed staging areas were addressed as part of the Draft EIS/EIR in the Westside Subway Extension Real Estate and Acquisitions Technical Report, in Chapter 2 and Appendix C of the Draft EIS/EIR. These proposed areas were refined and/or eliminated from further consideration for staging during the preparation of the Final EIS/EIR. The staging areas under consideration for the LPA in the Final EIS/EIR are identified in the Westside Subway Extension Acquisitions and Displacement Supplemental Report, and Section 2.6 and Appendix C of the Final EIS/EIR.

It is important to note that several construction staging site alternatives are under consideration at a few station locations in this Final EIS/EIR. Selection of the construction staging site will consider where the station entrances could be co-located, environmental impacts, and cost, as well as other factors. The decision will be made by the Metro Board of Directors following circulation and public review of this Final EIS/EIR.

Traffic impacts associated with LPA construction include reduced roadway traffic lanes and temporary street closures that could result in major traffic disruptions and bottlenecks. These impacts are associated with contractor work and storage areas, stations, crossovers, mining entry/exit locations, TBM operations and support activities, truck haul routes, transportation of oversized construction materials, station entrances, station appendages, grout injection, and drop holes for the LPA and are detailed in Section 3.8.2 of this Final EIS/EIR.

Subway stations are built by excavating the site for the station box and then building the station below ground. If the station is built under a street, it is covered over with concrete decking during construction to allow traffic to continue to flow overhead. Traffic will be disrupted at the beginning of station construction to allow for initial excavation and installation of the concrete decking, and again at the end to remove the decking and reconstruct the street. The Traffic-Control Activities during Station Construction table in Section 3.8 details the traffic-control activities during station construction and the duration...
Anticipated truck haul routes consist of major city arterial streets that trucks will use to transport spoils, muck, material, and equipment between the construction laydown site locations and the offsite disposal location using the nearest freeway interchange. To minimize peak-period traffic disruptions, haul truck activity will occur during off-peak and nighttime periods. These routes generally follow major commercial streets and avoid residential areas to the greatest extent possible. The proposed routes identified are provided in Section 3.8 of this Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report. The routes may be updated and revised once additional information, such as construction sequencing, is finalized. In addition, the proposed routes will be subject to the approval of Metro and appropriate departments at Federal, State, and local agencies. The routes will be finalized in coordination with local jurisdictions and will be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods.

TBM components will be transported to the tunnel construction site by truck. Several oversize deliveries will be required, some during nights and weekends. However, these large component deliveries are limited to the initial setup period for the TBM, as well as during the removal period. If a TBM is re-used to excavate a subsequent tunnel, the entire machine may be transported by road from one site to the next. This would require full or partial road closures, typically at night.

Following completion of the Project, if physical damage to haul routes was found, affected roads will be treated in a manner that returns affected facilities to pre-construction conditions. This work will restore the street or ground surface to its original condition, or better. Site restoration operations will closely follow completion of the station structures. To maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic.

Backfill material will be trucked in, placed, and compacted. During backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks will be restored, and the permanent street will be constructed, including paving, striping, and signage. Streets, sidewalks, and landscaping will be restored in accordance with City standards.

To minimize impacts to traffic circulation, the following mitigation measures will be implemented during construction:

- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
T-CON-4, TCON-3, TCON-4, TCON-5 were added during this Final EIS/EIR phase based on additional analysis of construction impacts on traffic circulation and concerns raised by the public. With implementation of the mitigation, construction-related adverse effects on traffic circulation will be reduced for adjacent commercial areas and residential neighborhoods. Although the construction impacts on traffic circulation identified will be temporary, impacts and/or residual impacts after mitigation will remain significant and unavoidable during the construction period.

All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports

Your comment regarding the community coordination during construction has been noted.

Metro has always been committed to maintaining business and residential access during construction. Construction impacts will be temporary and limited in areas as construction proceeds along the length of the Locally Preferred Alternative. Metro will coordinate with affected residents and businesses prior to construction. A detailed survey of community stakeholders and businesses will be conducted. A construction safety campaign will be developed and community response protocols (notification of construction activities, hot lines, etc.) will be produced. A public involvement plan will be developed prior to each construction phase and will be tailored to the construction phase. Metro will maintain the Project website, which will provide information to the public regarding construction phasing. Metro will develop a program tailored for different locations and needs. The program will involve signage and marketing to assistance to businesses, identification of parking alternatives, and other measures.

Metro also considers the cumulative impact of multiple projects in the Study Area under construction at the same time as the subway extension. Careful coordination will occur with local jurisdictions, including the City of Beverly Hills, to ensure that potential impacts from the simultaneous construction of multiple projects are addressed and mitigated to the extent feasible.

Your comment regarding dewatering has been noted. Please see response above to comment number 824-62 regarding groundwater contamination and dewatering activities.

Your comment has been noted. Additional geotechnical analysis was done as part of the
Final EIS/EIR. The results of further geotechnical investigations, including seismic studies and analyses to identify risks of settlement and proximity to oil wells, have been incorporated into the Westside Subway Extension Century City Area Tunneling Safety Report and the Westside Subway Extension Century City Area Fault Investigation Report.
Your comment on wastewater service information for the City of Los Angeles has been noted. This information was used in developing the utility relocation plan. Metro will continue to coordinate with the City of Los Angeles regarding any utility relocation.

Dear Mr. Mieger:

Westside Subway Extension Transit Corridor – Draft EIR

This is in response to your August 27, 2010 letter requesting wastewater service information for the proposed project. The Bureau of Sanitation, Wastewater Engineering Services Division (WESD) has conducted a preliminary study of the existing sewer lines and gauges located within the vicinity of the proposed project location.

The City of Los Angeles sewer system consists of primary sewers (16-inches and larger in diameter) and secondary sewers (less than 16-inches in diameter). The secondary sewers service the property laterals and feed into the primary sewer lines. The primary sewers are represented by the trunk, interceptor, and outfall portions of the system. These sewers ultimately convey the wastewater to the Hyperion Treatment Plant which has sufficient capacity for current and future development.

The majority of sewer lines within the proposed project area consist of secondary lines. Per our available information, the secondary reaches run along Wilshire Blvd in four segments:

1) between Centinela Ave and Federal Ave near the Wilshire/Bundy proposed station
2) between Veteran Ave and Whittier Dr near the Century City proposed station
3) between Schumacher Dr and Ogden Dr near the Wilshire/Fairfax proposed station
4) between McCadden Pl and Normandie Ave near the Wilshire/Westmoreland proposed station

The primary sewer reaches run along Wilshire Blvd in two main segments: between Sepulveda Blvd and Midvale Ave near the Century City proposed station, and between Ogden Dr and McCadden PI near the Wilshire/La Brea proposed station. Primary outfall
Your comment has been noted. Metro worked with the City of Los Angeles during development of the Metro Red and Metro Purple Lines, and will follow similar processes with the City of Los Angeles during Final Design of the Westside Subway Extension.

Currently, the project description lacks sufficient information for us to conduct a detailed wastewater capacity analysis. Should more project details related to the construction dewatering or sewer discharges become available, please continue to send us information so that we may determine if a sewer assessment is required in the future.

If you have any questions, please call Abdul Daneshwar of my staff at (323) 342-6220.

Sincerely,

Ali Pooest, Acting Division Manager
Wastewater Engineering Services Division
Bureau of Sanitation

End. Figure 1 – Westside Subway Extension Transit Corridor Sewer Map

cc: Kosta Kaporis, BOS
    Daniel Hackney, BOS
    Rowena Lau, BOS
October 18, 2010

Mr. Art Leahy
Chief Executive Officer
Los Angeles County Metropolitan Transportation Authority (MTA)
One Gateway Plaza
Los Angeles, California 90012

RE: CITY OF LOS ANGELES COMMENTS ON MTA’S WESTSIDE SUBWAY EXTENSION
DRAFT ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT
(DRAFT EIS/EIR)

Dear Mr. Leahy:

The City of Los Angeles is pleased to provide comments on the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/DEIR) for the Westside Subway Extension project. City departments have reviewed the DEIS/DEIR document and have provided detailed comments and feedback for your consideration. For your convenience, the city departments providing comments are referenced in parenthesis in case your staff and/or consulting team needs to follow-up. The following city departments contributed to this review effort:

- Department of City Planning (DCP)
- Department of Public Works, Bureau of Engineering (BOE)
- Department of Public Works, Bureau of Street Lighting (BSL)
- Department of Transportation (DOT)
- Community Redevelopment Agency of the City of Los Angeles (CRA/LA)

Los Angeles recognizes the importance of this Westside Subway Extension as an integral link in the region’s growing transit network. The city looks forward to continuing working closely with MTA in the upcoming design and construction phase of the project.

Sincerely,

Gary Lee Moore
City Engineer, BOE

Michael LoGrande
General Manager, DCP

Ed Brahmian
General Manager, BSL

Christine Esken
Chief Executive Officer, CRA/LA
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Alternatives Evaluation

Preferred Alternative

615-1

As shown in the environmental analysis, each of the Build Alternatives would provide improved mobility and accessibility in the Westside area; however, Alternative 5 provides the greatest benefit among the various build alternatives studied, in that it results in additional linkages that enhance job access for residents of the San Fernando Valley and Hollywood districts of the City of Los Angeles. Given that only Alternative 1 and 2 can be built within expected funding, the City recommends that one of these alignments be prioritized as a crucial first step to improving mobility in the region, with the ultimate goal of building out the full system as described in Alternative 5 (DCP).

615-2

We support the selection of Alternative 2, Westwood/VA Hospital Extension, as the Locally Preferred Alternative because it provides the best balance of cost effectiveness, ridership potential and transit connectivity within the constraints of available project funding. It also provides subway access west of the I-405 Freeway. The project would improve mobility and access within the Wilshire Boulevard corridor, one of the most heavily-traveled and congested in the City with its concentration of high density residential uses, institutions and commercial centers (LADOT).

615-3

The Transportation Systems Management (TSM) Alternative does not achieve the necessary transportation improvements that are needed in this corridor and this alternative should not be selected over the Build Alternatives (See Section 7.2 – TSM and Build Alternatives (DCP)).

615-1

Your support for Alternative 5 (Santa Monica Extension plus West Hollywood Extension) as well as your acknowledgement that only Alternatives 1 and 2 can be built with expected funding, has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). Only Alternatives 1 and 2 are affordable within the adopted Long Range Transportation Plan (LRTP), and between them, Alternative 2 provides significantly higher ridership and better cost effectiveness. Additionally, Alternative 2 serves the VA Hospital and other communities west of the I-405 more effectively.

The Draft EIS/EIR demonstrated a significant market for a subway serving Santa Monica and West Hollywood. However, there is not sufficient Measure R or other funding available to construct a Santa Monica or West Hollywood subway at this time. The Santa Monica and West Hollywood corridors are included in the Strategic Element of the 2009 Long Range Transportation Plan. Further study could occur should funding be identified and secured in the future. If the LPA is approved for implementation by the Metro Board, the LPA will also be designed so as not to preclude future westward extension of the subway.

Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives and the LPA selection process.

615-2

Your support of Alternative 2 as the LPA has been noted. Please see the above response to comment number 615-1 as it relates to Alternative 2.

615-3

Your opposition to the TSM Alternative is noted. Please refer to the response above to comment number 615-1, which states that the Metro Board of Directors selected Alternative 2 as the LPA.
Your comment regarding the Wilshire/Crenshaw Station has been noted. Please refer to the response above to comment number 615-4. The Wilshire/Crenshaw Station was not included in the LPA selected by the Metro Board of Directors.

Your comment regarding the Wilshire/Crenshaw Station has been noted. Please refer to the response above to comment number 615-4. The Wilshire/Crenshaw Station was not included in the LPA selected by the Metro Board of Directors.
Your comment regarding station entrances at the Wilshire/Fairfax Station has been noted.

The number of entrances at each station is based on ridership projections. All stations, including the Wilshire/Fairfax Station, will have one entrance. The exception is the Westwood/UCLA, which will have two entrances due to higher ridership projections.

Three potential locations for the entrance at the Wilshire/Fairfax Station are evaluated in the Final EIS/EIR, but only one will be constructed. The three entrances under consideration are:

- Northwest corner of Wilshire Boulevard and Fairfax Avenue (west of Johnie’s Coffee Shop
- Northeast corner of Wilshire Boulevard and Fairfax Avenue (in the interior of the LACMA West, former May Company building
- Southeast corner of Wilshire Boulevard and Orange Grove Avenue

The recommendation is to locate the Wilshire/Fairfax Station entrance on the northwest corner of the intersection, immediately west of Johnie’s Coffee Shop as this location would provide access to destinations on the north side of Wilshire Boulevard and to north-south bus connections as compared to a station entrance at Wilshire Boulevard and Orange Grove Avenue. The selection of the Johnie’s site would avoid any conflicts with the proposed plans for a film museum as well as the additional risks and costs associated with construction of an entrance inside the LACMA West/May Company building. Please refer to Section 7.4.2 of the Final EIS/EIR for a discussion of the entrance locations at Wilshire/Fairfax.

Convenient and safe access by pedestrians and bicyclists will be an important element of the Westside Subway Extension Project. Sidewalks, bicycle lanes, and other facilities along the Project corridor support non-motorized access. To assess potential future access improvements to subway stations, Project design efforts included a study of circulation needs in each station area. The results of this study are available in the Westside Subway Extension Station Circulation Report and Section 3.7 of this Final EIS/EIR. This study provided important guidance on potential station features, including those specifically relating to pedestrian and bicycle access. Areas explored by the study included the following:

- Provision of bicycle facilities at stations
- Enhanced bus shelters and lighting
- Making crosswalks more visible with crosswalk treatments and advance stop bars, increasing safety for pedestrians transferring from buses or traveling to other destinations on foot
- Improving the transit and pedestrian environment with the addition of sidewalk treatments

Results of the station circulation study helped direct further design of subway stations and supported station area planning for the Project. The station area planning examined access opportunities and potential improvements in the neighborhoods surrounding subway stations.
Section 3.7 of this Final EIS/EIR summarizes the findings of the Station Circulation Report and lists specific measures to be implemented at stations to improve pedestrian and bicycle access. These measures include the following:

- T-5 through T-8 - Install Crossing Deterrents
- T-9 - Provide consistency with General Plan Designation Sidewalk Width Adjacent to Metro-Controlled Parcels
- T-10 - Provide consistency with General Plan Designation Sidewalk Width Coordination with Jurisdictions
- T-11 - Provide High Visibility Crosswalk Treatments
- T-12 - Meet Federal, State, and Local Standards for Crossing
- T-13 - Meet Metro Rail Design Criteria Minimums for Bicycle Parking
- T-14 - Study Bicycle Parking Demand and Footprint Configuration
- T-15 - Determine Alternative Sites for Bicycle Parking

Metro is committed to working with local jurisdictions to improve the environment for pedestrians and bicyclists at all Project stations and will continue to assess and refine the needs of pedestrians and bicyclists as the Project progresses into Final Design.

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to station connectivity. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations and Section 3.7 provides an analysis of potential impacts to pedestrian and bicycle networks. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment supporting the East location for the Wilshire/Fairfax Station has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative, which includes the Wilshire/Fairfax East Station location due to stronger community support and better access and land integration opportunities, including proximity to Museum Row.

As noted in the response to comment number 615-7 above, only one entrance will be constructed at the Wilshire/Fairfax Station.

Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Wilshire/Fairfax Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. This report is available on the Metro Westside
Your preference for the West location of the Wilshire/La Cienega Station has been noted. At Wilshire/La Cienega, the Metro Board of Directors selected the East Station location without a West Hollywood connection structure for inclusion in the LPA. This is the preferred station entrance location for the City of Beverly Hills because it will be located in a denser, more commercial area than the other station location to the west of La Cienega. This entrance location also will provide excellent connections to two major north-south arterials - La Cienega and San Vicente Boulevards.

The Metro Board of Directors chose not to include a West Hollywood connection structure in the LPA due to funding constraints. Additionally, the cost of the connection structure is not sufficiently justified when there may be alternative, less costly solutions to serve the West Hollywood transit market, such as a light rail line. The Draft EIS/EIR showed that there is a market for transit improvements serving West Hollywood, and this corridor is included in the Strategic Element of the 2009 Long Range Transportation Plan. Should funding be identified and secured, further study could be done to identify a project that would be competitive under Federal funding criteria.

Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Wilshire/La Cienega Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. This report is available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment in support of the Century City Constellation Station has been noted. On October 28, 2010, the Metro Board of Directors identified Alternative 2 (Westwood/VA Hospital Extension) as the Locally Preferred Alternative (LPA). As part of the LPA selection, the Metro Board of Directors decided to continue to study both station location options in Century City (Santa Monica Boulevard and Constellation Boulevard) to address concerns raised by the community regarding locating a station directly on a seismic fault and the safety of tunneling under homes and schools.

In response to the Metro Board of Director’s request for more information, further analysis was undertaken to focus on the engineering and environmental aspects of the two options during the preparation of the Final EIS/EIR to expand on the studies conducted in preparation of the Draft EIS/EIR. It should be noted that prior to conducting the comparative study, the Santa Monica Boulevard Station location was shifted slightly to the east from the location in the Draft EIS/EIR to avoid the Santa Monica Fault zone.

The geotechnical studies conducted during preparation of the Final EIS/EIR concluded that tunneling can be safely carried out beneath the Beverly Hills High School campus and the West Beverly Hills, Century City, and Westwood neighborhoods. However, these studies also determined that the Century City Santa Monica Station would cross the West Beverly Hills Lineament, a northern extension of the active Newport-Inglewood Fault, which poses a significant safety risk to passengers at this station location. No evidence of faulting was found at the proposed Century City Constellation Station site.

In addition, the Century City Constellation Boulevard Station has the best pedestrian environment, can be expected to attract the most transit riders, and is centrally located to help shape the redevelopment of Century City as an important transit-oriented destination on the Westside Subway Extension. Further refinements to the ridership analysis concluded that the Century City Constellation Station would result in 3,350 more boardings along new Westside Subway Extension stations than the Century City Santa Monica Station due to proximity to jobs and residences within the critical 600-foot and 1/4-mile walksheds.

Based on all of these factors, the Century City Station Location Report concluded by recommending that the Century City Station be located along Constellation Boulevard due to seismic safety concerns at the Santa Monica Boulevard Station and higher ridership projections with Constellation Boulevard Station.

Please refer to Section 8.8.2 and 8.8.3 of the Final EIS/EIR for more detailed responses to concerns related to the Century City Station. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Century City Station Location Report for a comparison of the two Century City Station locations. The results of further geotechnical investigations in the Century City vicinity can be found in the Westside Subway Extension Century City Area...
Fault Investigation Report and the Westside Subway Extension Century City Area Tunneling Safety Report. The results of further ridership studies can be found in the Westside Subway Extension Technical Report Summarizing the Results of the Forecasted Alternatives and the Westside Subway Extension Century City TOD and Walk Access Study. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment in support of the Century City Constellation Station has been noted. Please see the response above to comment number 615-10 regarding the continued study of the Century City Station.

Your comment on the location of the Westwood/ UCLA Station and pedestrian access has been noted. As part of the LPA selection, the Metro Board decided to continue to study both Westwood/UCLA station location options (On-Street and Off-Street).

A comparative study of the two proposed Westwood/UCLA station locations, including engineering, costs, urban design, and environmental impact considerations, was conducted during the Final EIS/EIR phase to expand on the studies conducted in preparation of the Draft EIS/EIR.

The Off-Street Station and tunnels would need to be deeper than the On-Street Station to clear the underside of foundations for a future hotel on Gayley Avenue, which makes the station and tunnels riskier and more expensive to construct, and requires more time for transit riders to travel between the platform and the station entrance. Additionally, the Westwood/UCLA Off-Street Station location would require approximately 13 additional permanent underground easements.

The On-Street Station location would provide at least one of entrance at the corner of Wilshire and Westwood Boulevards. This entrance location would provide better access to bus connections along Westwood Boulevard and would be closer to the major office buildings and Westwood Village than the entrances for the Off-Street Station. Furthermore, one of the station entrance options for the On-Street Station is a split entrance between the north and south sides of Wilshire Boulevard, providing access to both sides of busy Wilshire Boulevard. However, the Westwood/UCLA On-Street Station option is also expected to have greater traffic impacts during construction due to in-street construction along Wilshire Boulevard.

Based on these factors, the recommendation is to locate the Westwood/UCLA Station On-Street as this location could accommodate an entrance at the Wilshire Boulevard and
Westwood Boulevard intersection, providing better pedestrian access to Westwood Village and connections along Westwood Boulevard.

Please refer to Section 8.8.6 of the Final EIS/EIR for more detailed responses to concerns related to the Westwood/UCLA Station. Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The *Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report* provides a more detailed description of the refinements to the Westwood/UCLA Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. Refer to Section 7.3 of the Final EIS/EIR and the *Westside Subway Extension Westwood/UCLA Station and the Westwood/VA Hospital Station Locations Report* for a comparison of the two Westwood/UCLA locations. In addition, the *Westside Subway Extension Station Entrance Location Report and Recommendations* provides a comparison of the potential entrance locations at Westwood Boulevard, Gayley Avenue and Veteran Avenue for both the On-Street and Off-Street Stations. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment regarding access to the Westwood/VA Hospital Station and your preference for a modified Westwood/VA Hospital Station location has been noted.

During the Draft EIS/EIR scoping, the public suggested that an additional station should be provided west of I-405 because of the large distance between a Westwood/UCLA and a Wilshire/Bundy Station, as well as a desire to serve communities west of the I-405 more effectively. In response, five proposed stations west of I-405 were studied-two at Westwood/VA Hospital (one north of Wilshire and one south of Wilshire), Wilshire/Federal, Wilshire/Barrington, and Wilshire/Bundy. In analyzing the proposed stations, the potential to serve as a terminus station was an important consideration. In addition, all of the stations except for the stations at Westwood/VA Hospital are located too far west to be funded as part of Measure R and beyond the adopted LRTP.

The Wilshire/Federal Station would have been located on a site currently used by the U.S. Army Reserve, and the site was determined to be too small to accommodate the subway station without impacting adjacent historic homes in the VA property. From an engineering perspective, this also would have been a challenging site to construct a subway station because of the sharp curve of Wilshire Boulevard. Therefore, the Wilshire/Federal Station was eliminated from further consideration.

The Wilshire/Barrington Station would have been located slightly west of the proposed Wilshire/Federal Station. While the Wilshire/Barrington Station is in a high density area with high ridership potential, comments were received from the community during scoping in opposition to locating a terminus station at Wilshire/Barrington due to traffic congestion and dense development concerns. Furthermore, the Wilshire/Barrington Station was not as evenly spaced between the Westwood/UCLA Station and the Wilshire/Bundy Station as is the Westwood/VA Hospital Station.

The Wilshire/Bundy Station would have been located at the farthest west of the terminus station considered and provided better potential transit connections as it aligns with the future planned Expo station at Olympic/Bundy. However, it is beyond Measure R funding.

Based on all of these considerations, and especially the fact that only the Westwood/VA Hospital Station is fundable within Measure R, the Wilshire/Federal, Wilshire/Barrington, and Wilshire/Bundy Stations were eliminated as potential terminus stations for the fundable Measure R alternatives. Both the North and South Options at the Westwood/VA Hospital Station were carried forward for further analysis in the Draft EIS/EIR. The Wilshire/Bundy Station was also carried forward into the Draft EIS/EIR as part of the Santa Monica Extension, which is beyond available Measure R funding, and would not serve as a terminus station.

Convenient and safe access by pedestrians and bicyclists will be an important element of
the design of all station areas, including the Westwood/VA Hospital Station. A comprehensive station access circulation study was conducted for this station due to feedback from both the VA and the public. The recommendations resulting from this study are available in the Westside Subway Extension Station Circulation Report. The report considered pedestrian access, bicycle access, bus access, and auto access to the Westwood/VA Hospital Station and resulted in a detailed urban design concept for the Westwood/VA Hospital Station—both the North and South locations. Potential impacts to interfacing transportation networks, including bus transit (specifically, the location of bus stops), and pedestrian and bicycle facilities (pedestrian crossings and bicycle lanes) are also presented in Section 3.7 of this Final EIS/EIR.

In preparation of this Final EIS/EIR, the station box and station entrance for the Westwood/VA Hospital South Station was shifted north from the location evaluated in the Draft EIS/EIR. Based on feedback from the VA and the public, the station box was shifted to the far northern end of the parking lot to allow the VA to more easily develop their property in the future and to improve public access to the station. This station location farther from the VA Hospital also facilitates a clearer delineation between station activities and VA activities on the VA Campus.

Currently, Wilshire Boulevard and Bonsall Avenue are grade-separated with Bonsall Avenue passing beneath Wilshire Boulevard. For the Westwood/VA Hospital South Station, the proposed station entrance, as detailed in Section 2.6 of this Final EIS/EIR, would be located on the Bonsall level, beneath the bus drop-off area to the north of the VA Hospital parking lot. The existing bus drop-off area at the Wilshire level on the north and south sides of Wilshire Boulevard would remain the same. A passenger drop-off area would also be provided on the Wilshire level within the bus drop-off area on the north side of Wilshire Boulevard.

For the Westwood/VA Hospital North Station, the station entrance 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, as detailed in Section 2.6 of this Final EIS/EIR. The existing bus drop-off area at the Wilshire level on the north and south sides of Wilshire Boulevard would remain the same.

Since the entrance for both the North and South stations are located along Wilshire Boulevard at Bonsall Avenue, on the Bonsall level, there are no major differences between the two stations for the purposes of evaluating station circulation. However, Section 3.7 of this Final EIS/EIR concludes that both the North and South entrance at the Westwood/VA Hospital Station will result in increased hazards to pedestrians and bicyclists due to a design feature or incompatible uses and will conflict with adopted plans or policies related to public transit, bicycle, or pedestrian facilities prior to mitigation. To improve access, the following mitigation measures will be implemented at the Westwood/VA Hospital Station.
(North or South):

- T-8-Install High-Visibility Crosswalk
- T-9-Provide consistency with General Plan Designation Sidewalk Width Adjacent to Metro-Controlled Parcels
- T-10-Provide consistency with General Plan Designation Sidewalk Width Coordination with Jurisdictions
- T-11-Provide High Visibility Crosswalk Treatments
- T-12-Meet Federal, State, and Local Standards for Crossing
- T-13-Meet Metro Rail Design Criteria Minimums for Bicycle Parking
- T-14-Study Bicycle Parking Demand and Footprint Configuration
- T-16-Study Bus-Rail Interface

With implementation of these measures, impacts to the interfacing pedestrian and bicycle networks and bus stops will be mitigated to less than significant levels at the Westwood/VA Hospital Station. While it is acknowledged that streets in the vicinity of the Westwood/VA Hospital Station are wide, pedestrian and bicycle movements in the study area can still occur without major barriers. The vicinity of the Westwood/VA Hospital Station does contain a network of sidewalks, including connections between potential future rail station entrances and nearby activities. Escalators will provide easy connections from the bus turnouts on Wilshire Boulevard to the Bonsall level, making transfers between bus and subway relatively convenient.

Please refer to Section 8.8.5 of the Final EIS/EIR for more detailed responses to concerns related to the Westwood/VA Hospital Station and to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Westwood/VA Hospital Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Westwood/UCLA Station and the Westwood/VA Hospital Station Locations Report for a comparison of the two Westwood/UCLA locations in the Final EIS/EIR. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of the Westwood/VA Hospital Station and Section 3.7 provides an analysis of potential impacts to pedestrian, bicycle, and bus networks. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

As part of the LPA, Metro has selected Alternative 2 with the expansion of Division 20 Maintenance and Storage Facility and without the satellite facility. Metro will continue to coordinate with the City of Los Angeles regarding the expansion of Division 20.
Your comment regarding emergency generators has been noted. As identified in Section 2.6 of the Final EIS/EIR, emergency generators will be located only at the Wilshire/La Brea and Westwood/VA Hospital Stations. The generators would be located at-grade in the vicinity of the station entrance and are included in Appendix A, Plans and Profile. The generator placement has been developed to minimize any of the affects of the emergency generators. Both generators would be located away from public sidewalks and screened. Refer to Chapter 2.6.7 of the Final EIS/EIR for a more detailed description of emergency generators and illustration. Midline vent shafts would not be constructed as part of the Project.
Each jurisdiction was consulted throughout the scoping process regarding level of service (LOS) methodology and impact criteria, and assisted in the selection of study intersections. This consultation included meetings with Los Angeles Department of Transportation (LADOT) staff. At the July 8, 2009 meeting, representatives from LADOT, Metro, and the Project consultants met to discuss traffic impact analysis for the Project, including level of service and criteria for thresholds of significance that will be used to identify potential impacts. At that meeting, no objections were raised by LADOT staff about the methodology, including the use of HCM methodology and the identified impact criteria. Accordingly, the analysis of transportation impacts was carried out using HCM methodology and the impact criteria as described in the Final EIS/EIR. Also, the identified thresholds of significance are consistent with other recent environmental assessments affecting the City of Los Angeles. These include the Expo Phase I and Crenshaw Transit Corridor projects and represent thresholds that were developed for transit infrastructure projects that are multi-jurisdictional in nature.

Thresholds of Significant Impact

To evaluate the effects of the project on the available transportation infrastructure, the significance of the project’s traffic impacts is measured in terms of change in delay between the “future no project” and the “future with project” scenarios. However, the traffic study developed thresholds of significant impact that are inconsistent with LADOT’s established standards. When using the delay methodology to estimate an intersection’s level-of-service, the City defines a significant traffic impact as follows (LADOT):

- At LOS C “with project conditions,” the project-related increase in traffic delay is equal to or greater than 6.0 seconds
- At LOS D “with project conditions,” the project-related increase in traffic delay is equal to or greater than 4.0 seconds
- At LOS E and F “with project conditions,” the project-related increase in traffic delay is equal to or greater than 2.5 seconds

These impact thresholds were used in environmental clearance studies for other recent transit projects, including the Regional Connector, Wilshire BRT, and Gold Line Eastside Extension. Given that the Build Alternatives would implement a subway, and that no park-and-ride lots are proposed at any of the stations, the project is not expected to result in any significant traffic impacts at intersections within the City of Los Angeles, and this is the finding of the traffic impact analysis. Nonetheless, the traffic study should be revised to utilize the City’s significant traffic impact definitions described above to ensure consistency (Section 3.5.2 – Streets and Highways) (LADOT).
Your comment regarding off-street parking supply has been noted. The analysis of off-street parking supply was intended to provide an approximate estimate of commercial parking supply in each station area. This estimate was caveated by acknowledging the potential for overestimating off-street supply, due to the presence of historic buildings with zero parking or reduced parking (compared to existing municipal code parking requirements) and areas that offer in-lieu parking. In light of this acknowledgment, a supplemental study was undertaken during the preparation of the Final EIS/EIR to more accurately represent off-street parking supply. The results of this study are in the Westside Subway Extension Updated Off-Street Parking Analysis Memorandum and have been incorporated into Section 3.6.1 of the Final EIS/EIR.

Your comment about neighborhood spillover parking and support of a shared parking program has been noted. Section 3.6 of this Final EIS/EIR estimates the demand for parking at the stations and determines whether surrounding neighborhoods would experience any spillover parking impacts due to subway riders looking for free, unrestricted parking. This analysis concluded that all stations, with the exception of the Wilshire/Rodeo and Century City (both Constellation and Santa Monica) Stations, are anticipated to result in some parking spillover impacts within one-half mile of the stations without mitigation in place. To reduce these spillover parking impacts, the following mitigation measures will be implemented at all stations where an impact was identified:

- T-2-Parking Monitoring and Community Outreach
- T-3-Residential Permit Parking Districts
- T-4-Consideration of Shared Parking Program

As a means of potentially using off-street parking in the vicinity of stations, Metro will consider developing a shared parking program with operators of off-street parking facilities to accommodate the Project’s parking demand, thereby allowing subway riders to use excess capacity in these facilities. The revised off-street parking analysis conducted for this Final EIS/EIR determined that more than 100,000 off-street parking spaces serve commercial land uses within a one-half mile walking distance of the seven LPA station locations. As part of the analysis, a sampling of parking facility operators for each station location was contacted to determine availability of public parking in their facility on weekdays and weekends, daily parking rate, facility occupancy, and interest in partnering with Metro to make parking available to riders of the Westside Subway Extension. Based on a sample of operators at each station area, some shared parking potential for subway riders exists. However, this potential may be limited at individual facilities because many are near their capacity during weekdays.

For six months following the opening of service, Metro will monitor off-street parking activity in station areas through communication with parking operators to qualitatively gauge the effects on parking demand as a result of the Project and revisit their interest in participating in a shared parking program. It is anticipated that the Project will reduce parking demand in...
station areas, as some employees will use the subway to commute to work rather than driving. Because the development of a shared parking program will be contingent on the willingness of parking facility operators to participate, as well as the availability of parking supply at their facilities, it may be infeasible to implement this measure at some or all station areas where spillover parking impacts have been identified.

With implementation of the mitigation measures, spillover parking is not anticipated to be an adverse effect to neighborhoods surrounding the stations.

Your comment has been noted. Please see the above response to comment number 615-18 regarding spillover parking and mitigation measures.

Bicycle parking facilities have been studied as part of the Westside Subway Extension Station Circulation Report. Section 3.7 of this Final EIS/EIR summarizes the findings of this report and lists specific measures to be implemented at stations to improve bicycle access, including bicycle parking. These measures include the following:

- T-13-Meet Metro Rail Design Criteria Minimums for Bicycle Parking
- T-14-Study Bicycle Parking Demand and Footprint Configuration
- T-15-Determine Alternative Sites for Bicycle Parking

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to station connectivity. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations and Section 3.7 provides an analysis of potential impacts to pedestrian and bicycle networks. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports

It is recognized that some passenger drop-offs and pick-ups would occur at subway stations. However, in developed urban areas, such as the Westside of Los Angeles, the space available for kiss-and-ride facilities is constrained by limited on- and off-street right-of-way. The current Red/Purple Line system (16 stations) has designated kiss-and-ride facilities only at the Westlake/MacArthur Park, North Hollywood, Universal City and Union Stations.

As part of the Westside Subway Extension Station Circulation Report, Metro evaluated the demand for and ability to accommodate kiss-and-ride facilities at the subway stations. Kiss-and-ride facilities are considered a form of auto access, which is ranked below pedestrian, cyclist, and bus access in the Metro Rail Design Criteria. Therefore, given the choice between enhancing pedestrian connections or constructing a kiss-and-ride in limited right-of-way, Metro would opt to improve pedestrian facilities.
For the Westside Subway Extension, passenger drop-off areas will be provided only at the Westwood/VA Hospital Station. The Westwood/VA Hospital passenger drop-off area would not be a designated kiss-and-ride as it would not meet the Metro Rail Design Criteria for a kiss-and-ride due to space limitations. Pick-up/drop-off activity is expected to be the heaviest at the Westwood/VA Hospital Station since it is a terminus station.

The Westside Subway Extension Station Circulation Report concluded that the remaining stations do not have adequate space to accommodate a passenger drop-off area. The stations would be located in dense, urban areas and along major thoroughfares with numerous bus stops, parking restrictions, and a high level of vehicular and bus activities. Additionally, recommendations to provide bicycle parking and the possibility of bus bays at stations further limit space available for kiss-and-rides. Kiss-and-ride facilities would not be provided at the expense of bicycle parking or bus stops.

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to the passenger drop-offs. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports
Your comment regarding crosswalks has been noted. The Westside Subway Extension Station Circulation Report and Section 3.7 of this Final EIS/EIR consider the need for new crosswalks in the station areas. The following mitigation measures will be implemented to improve crosswalks and crosswalk treatments:

- T-5 through T-8-Install Crossing Deterrents/Crossing Deterrents
- T-11-Provide High Visibility Crosswalk Treatments
- T-12-Meet Federal, State, and Local Standards for Crossing

Metro is committed to working with local jurisdictions, including the City of Los Angeles, to improve the environment for pedestrians and bicyclists at all Project stations and will continue to assess and refine the needs of pedestrians and bicyclists as the Project progresses into Final Design.

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to station connectivity. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations and Section 3.7 provides an analysis of potential impacts to pedestrian and bicycle networks. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment regarding pedestrian accessibility in the I-405 vicinity has been noted. Convenient and safe access by pedestrians and bicyclists will be an important element of the design of all station areas, including the Westwood/VA Hospital Station. A comprehensive station access circulation study was conducted for this station due to feedback from both the VA and the public. The recommendations resulting from this study are available in the Westside Subway Extension Station Circulation Report. The report considered pedestrian access, bicycle access, bus access, and auto access to the Westwood/VA Hospital Station and resulted in a detailed urban design concept for the Westwood/VA Hospital Station—both the North and South locations. Potential impacts to interfacing transportation networks, including bus transit (specifically, the location of bus stops), and pedestrian and bicycle facilities (pedestrian crossings and bicycle lanes) are also presented in Section 3.7 of this Final EIS/EIR.

In preparation of this Final EIS/EIR, the station box and station entrance for the Westwood/VA Hospital South Station was shifted north from the location evaluated in the Draft EIS/EIR. Based on feedback from the VA and the public, the station box was shifted to the far northern end of the parking lot to allow the VA to more easily develop their property in the future and to improve public access to the station. This station location farther from the VA Hospital also facilitates a clearer delineation between station activities and VA activities on the VA Campus.
Currently, Wilshire Boulevard and Bonsall Avenue are grade-separated with Bonsall Avenue passing beneath Wilshire Boulevard. For the Westwood/VA Hospital South Station, the proposed station entrance, as detailed in Section 2.6 of this Final EIS/EIR, would be located on the Bonsall level, beneath the bus drop-off area to the north of the VA Hospital parking lot. The existing bus drop-off area at the Wilshire level on the north and south sides of Wilshire Boulevard would remain the same. A passenger drop-off area would also be provided on the Wilshire level within the bus drop-off area on the north side of Wilshire Boulevard.

For the Westwood/VA Hospital North Station, the station entrance 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, as detailed in Section 2.6 of this Final EIS/EIR. The existing bus drop-off area at the Wilshire level on the north and south sides of Wilshire Boulevard would remain the same.

Since the entrance for both the North and South stations are located along Wilshire Boulevard at Bonsall Avenue, on the Bonsall level, there are no major differences between the two stations for the purposes of evaluating station circulation. However, Section 3.7 of this Final EIS/EIR concludes that both the North and South entrance at the Westwood/VA Hospital Station will result in increased hazards to pedestrians and bicyclists due to a design feature or incompatible uses and will conflict with adopted plans or policies related to public transit, bicycle, or pedestrian facilities prior to mitigation. To improve access, the following mitigation measures will be implemented at the Westwood/VA Hospital Station (North or South):

- T-8-Install High-Visibility Crosswalk
- T-9-Provide consistency with General Plan Designation Sidewalk Width Adjacent to Metro-Controlled Parcels
- T-10-Provide consistency with General Plan Designation Sidewalk Width Coordination with Jurisdictions
- T-11-Provide High Visibility Crosswalk Treatments
- T-12-Meet Federal, State, and Local Standards for Crossing
- T-13-Meet Metro Rail Design Criteria Minimums for Bicycle Parking
- T-14-Study Bicycle Parking Demand and Footprint Configuration
- T-16-Study Bus-Rail Interface

With implementation of these measures, impacts to the interfacing pedestrian and bicycle networks and bus stops will be mitigated to less than significant levels at the Westwood/VA Hospital Station. While it is acknowledged that streets in the vicinity of the Westwood/VA Hospital Station are wide, pedestrian and bicycle movements in the study area can still occur without major barriers. The vicinity of the Westwood/VA Hospital Station does contain a network of sidewalks, including connections between potential future rail station entrances and nearby activities. Escalators will provide easy connections from the
615-22

bus turnouts on Wilshire Boulevard to the Bonsall level, making transfers between bus and subway relatively convenient.

Furthermore, the subway would serve as a connection between Westwood and the VA Campus, serving both the east and west sides of the I-405.

Station accessibility at the Century City Station was also analyzed in the Westside Subway Extension Station Circulation Report. Santa Monica Boulevard in Century City has pedestrian crossings at Century Park West, Avenue of the Stars, and Century Park East. With limited destinations along the northern side of Santa Monica Boulevard, pedestrian activity is expected to be light, except for bus to rail transfers.

Please refer to Section 8.8.5 of the Final EIS/EIR for more detailed responses to concerns related to the Westwood/VA Hospital Station. Please refer to Sections 2.3, 2.4, and 2.5 of the Final EIS/EIR for an overview of the development of alternatives, including station locations, and the LPA selection process. The Westside Subway Extension Alternatives Screening and Refinement Following Scoping Report provides a more detailed description of the refinements to the Westwood/VA Hospital Station following Draft EIS/EIR scoping in response to community comments and engineering requirements. Refer to Section 7.3 of the Final EIS/EIR and the Westside Subway Extension Westwood/UCLA Station and the Westwood/VA Hospital Station Locations Report for a comparison of the two Westwood/UCLA locations. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of the Westwood/VA Hospital Station and Section 3.7 provides an analysis of potential impacts to pedestrian, bicycle, and bus networks. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

615-23

The criteria for "high pedestrian activity" was established as peak hour volumes of 500 or more pedestrians crossing at a study intersection during a peak hour. While Wilshire/La Brea may have significant pedestrian activity, it did not meet this criteria during the peak period.

615-24

Your preference for entrances on both sides of major boulevards has been noted. The number of entrances at each station was based on the ridership projections for that station. Based on these projections, Metro will construct one station entrance at each of the proposed stations, with the exception of two station entrances at the Westwood/UCLA Station due to high ridership projections. The Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations, including pedestrian access, and Section 3.7 provides an analysis of potential impacts to pedestrian and bicycle networks.
Your comment has been noted. Please refer to the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study, including pedestrian access, of Project stations and Section 3.7 provides an analysis of potential impacts to pedestrian and bicycle networks.
615-26
Additional station entrance locations can help to mitigate identified pedestrian impacts, and should be considered. For example, a station entrance at the southeast side of Hollywood and Highland could help to relieve the pedestrian traffic congestion currently experienced at this intersection by creating an underground passageway in conjunction with the expanded station. This intersection has very heavy volumes of pedestrian traffic as well as heavy volumes of motorists (DCP).

615-27
If additional station entrances cannot be provided at the time of opening, the number of knock-out panels in each station box should be maximized as part of the initial design work. This will allow for future connectivity/expansion and improved pedestrian access to the stations over time (DCP).

615-28
The City has given input as to the appropriate placement of station entrances, and any refinements or relocations should be discussed in advance with City staff. Additionally, specific mitigation measures at each station location should involve further consultation with City staff once the exact location of station entrances is determined (DCP).

615-26
Your comment has been noted. As discussed in the response to comment number 615-24, the number of entrances is determined by ridership projections. Only the Westwood/UCLA station will have two entrances. The Hollywood/Highlands Station is not included as part of the LPA and therefore is not in the Final EIS/EIR.

615-27
Your comment has been noted. Metro will construct one station entrance at each station with the exception of two entrances at the Westwood/UCLA Station due to high ridership projections. Knock-out panels will be provided at all stations. The number and location of the knock-out panels was based on a number of factors including an urban design analysis of the station area, engineering considerations, and public input. The station descriptions in Section 2.6 and the Station Site Plans in Appendix B of the Final EIS/EIR include locations of the knock-out panels.

615-28
The comment has been noted and continuous coordination with the City of Los Angeles will take place throughout the design process. A thorough analysis of all entrances under consideration in the Final EIS/EIR is available in the Westside Subway Extension Station Entrance Location Report and Recommendations and Section 7.4 of the Final EIS/EIR.
615-29
Your comment regarding bicycle parking has been noted. Please refer to the response above to comment number 615-19.

615-30
Your comment has been noted. The potential for pedestrian and bicycle impacts was further analyzed during the preparation of the Final EIS/EIR and the results of this analysis is included in the Westside Subway Extension Station Circulation Report and Section 3.7 of the Final EIS/EIR. Section 3.7 also includes a list of recommended mitigation measures. Metro has and will continue to coordinate with the City of Los Angeles throughout the design process.

615-31
Your comment has been noted. In order to assess potential future access improvements to subway stations, project design efforts included a study of circulation needs in each station area. This study identified potential impacts using factors such as Metro Design Criteria for station access. The assessment addressed impacts relating to ensuring adequate bicycle parking capacity, including racks, lockers, and/or bike stations. Mitigation efforts for bicycle-related impacts were also addressed in the station circulation study. The identified mitigation include the following measures in Section 3.7 of the Final EIS/EIR:

- T-13-Meet Metro Rail Design Criteria Minimums for Bicycle Parking
- T-14-Study Bicycle Parking Demand and Footprint Configuration
- T-15-Determine Alternative Sites for Bicycle Parking

Results of the station circulation study also helped direct further design of subway stations and supported station area planning for the Project. The station area planning examined access opportunities and potential improvements in the neighborhoods surrounding subway stations. City of Los Angeles 2010 Bicycle Plan proposed facilities were also identified in the station circulation study. Because implementation of these facilities are outside of Metro’s direct control, Metro 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. Please refer to the Westside Subway Extension Station Circulation Report and Section 3.7 of the Final EIS/EIR for more details and results of the study.

615-32
Your comment regarding bicycle facilities has been noted. The Draft Bicycle Plan has been recognized in the pedestrian/bike analysis presented in the Section 3.7 of the Final EIS/EIR. See previous response to comment number 615-31 relating to bicycle access for stations areas.
Your comment regarding shared parking at the Hollywood/Highland Station has been noted. However, the LPA selected by the Metro Board of Directors on October 28, 2010 does not include a station at Hollywood/Highland.

Your comment has been noted. The Wilshire/Crenshaw station is not part of the LPA and therefore is not included in the Final EIS/EIR. Please refer to the response for comment number 615-4.

Your comment regarding limitations to street widening at Wilshire/Crenshaw has been noted. However, the Wilshire/Crenshaw Station is not included in the LPA as selected by the Metro Board of Directors and street widening is not planned.

Local bus service will be an important access mode to high-capacity transit stations, including Wilshire/La Brea. The Westside Subway Extension Project Study Area includes substantial transit service, and many local and Rapid bus routes provide frequent service, particularly in peak demand periods. Recognizing the future role that local bus service will play, Metro continues to consider enhancements such as curb cuts in station areas as the design progresses as described in Section 3.7.3 of this Final EIS/EIR. The following mitigation measure is included in the Final EIS/EIR:

- T-16-Study Bus-Rail Interface: Metro will continue to assess bus-rail interface. As a result of further study Metro, working with affected jurisdictions, will relocate bus stops at some LPA stations to minimize the number of streets riders must cross to transfer between the LPA and interfacing bus lines.

Metro will continue to assess bus-rail interface, working with affected jurisdictions. Although a curb cut is not planned at this time at the Wilshire/La Brea Station, Metro will continue to work with the City of Los Angeles to review the design for this station to provide the most effective rail-bus interface. However, it should be noted that bus cut-outs (off-line stops) are not always preferable to on-street (on-line) stops due to potential conflicts when buses reenter traffic. The majority of bus stops at existing Red/Purple Line stations (North Hollywood, Universal City, and Union Stations excluded) involve on-line facilities.

Regarding curb cut outs for passenger drop off, it is recognized that some passenger drop-offs and pick-ups would occur at subway stations. However, in developed urban areas, such as the Westside of Los Angeles, the space available for kiss-and-ride facilities is constrained by limited on- and off-street right-of-way. The current Red/Purple Line system (16 stations) has designated kiss-and-ride facilities only at the Westlake/MacArthur Park, North Hollywood, Universal City and Union Stations.

As part of the Westside Subway Extension Station Circulation Report, Metro evaluated the demand for and ability to accommodate kiss-and-ride facilities at the subway stations. Kiss-
and-ride facilities are considered a form of auto access, which is ranked below pedestrian, cyclist, and bus access in the Metro Rail Design Criteria. Therefore, given the choice between enhancing pedestrian connections or constructing a kiss-and-ride in limited right-of-way, Metro would opt to improve pedestrian facilities.

For the Westside Subway Extension, passenger drop-off areas will be provided only at the Westwood/VA Hospital Station. The Westwood/VA Hospital passenger drop-off area would not be a designated kiss-and-ride as it would not meet the Metro Rail Design Criteria for a kiss-and-ride due to space limitations. Pick-up/drop-off activity is expected to be the heaviest at the Westwood/VA Hospital Station since it is a terminus station.

The Westside Subway Extension Station Circulation Report concluded that the remaining stations do not have adequate space to accommodate a passenger drop-off area. The stations would be located in dense, urban areas and along major thoroughfares with numerous bus stops, parking restrictions, and a high level of vehicular and bus activities. Additionally, recommendations to provide bicycle parking and the possibility of bus bays at stations further limit space available for kiss-and-rides. Kiss-and-ride facilities would not be provided at the expense of bicycle parking or bus stops.

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to the passenger drop-offs. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment regarding limitations to street widening at Wilshire/La Brea Station has been noted. No street widening are currently planned as part of the Wilshire/La Brea Station.

If the LPA is constructed in phases, the terminus for Phase 1 would be the Wilshire/La Cienega Station instead of the Wilshire/Fairfax Station. Section 3.6 of the Final EIS/EIR includes analysis of parking impacts for terminus stations if the LPA is constructed in phases and no additional parking impacts were identified at these temporary terminus stations.

Your comment regarding curb cut-outs at the Wilshire/Fairfax Station have been noted. Please refer to the response above to comment number 615-37.
Your comment regarding limitations to street widening at the Wilshire/Fairfax Station has been noted. No street widenings are currently planned in the vicinity of this station.

Your comment regarding curb cut outs at the Century City Santa Monica Station has been noted. Please refer to the response above to comment number 615-36 regarding curb cut outs.

Your comment regarding curb cut outs at the Century City Constellation Station has been noted. Please refer to the response above to comment number 615-36 regarding curb cut outs.

Your comment regarding curb cut outs at the Westwood/UCLA Station has been noted. Please refer to the response above to comment number 615-36 regarding curb cut outs.

north side of Wilshire Boulevard west of Fairfax Avenue, where a station plaza may be located (LADOT).

Note that the Wilshire Community Plan states that that Wilshire Boulevard shall have "no widening in excess of existing roadway" due to environmental and urban design considerations (DCP).

For the Century City/Santa Monica Boulevard base station, LADOT recommends that curb cut-outs for buses and passenger loading be installed on both sides of Avenue of the Stars adjacent to station entrances. If curb cut-outs are infeasible, MTA should work with adjoining property owners on shared-use of existing driveway pull-through or with LADOT to designate passenger loading zones on both sides of Avenue of the Stars south of Santa Monica Boulevard (LADOT).

For the Century City/Constellation Boulevard station option, LADOT notes that a passenger loading zone and bus stop currently exist on the south side of Constellation Boulevard east of Avenue of the Stars, adjacent to one of the proposed station entrances. There is also a passenger loading zone on the north side of Constellation Avenue mid-block between Avenue of the Stars and Century Park East. We recommend that MTA work with LADOT to investigate lengthening these passenger loading zones to provide additional space for waiting vehicles. MTA should also investigate installation of a curb cut-out for a passenger loading zone on the north side of Constellation Boulevard east of Avenue of the Stars, adjacent to the proposed main station entrance (LADOT).

For the Westwood/UCLA Lot 36 base station, LADOT recommends that a vehicle turn-around and passenger loading area be provided at the entrance to Lot 36 off Lindbrook Dr., and near the station entrances, for kiss-and-ride activity. If the Westwood/UCLA On-Street station option is selected, we recommend that MTA explore the feasibility of installing curb cut-outs for buses and passenger loading at the northwest and southeast corners of the intersection of Wilshire Boulevard and Westwood Boulevard and/or along the south side of Wilshire Boulevard between Gayley Avenue and Westwood Boulevard (LADOT).
Your comment regarding access to the Westwood/VA Hospital Station has been noted. Please refer to the response to comment number 615-13 regarding access issues at the Westwood/VA Hospital Station and a modified location for the station closer to Barrington or Federal.
Local bus service will be an important access mode to high-capacity transit stations. The Westside Subway Extension Project Study Area includes substantial transit service, and many local and Rapid bus routes provide frequent service, particularly in peak demand periods.

To recognize the future role that local bus service will play, the Project conducted a study of potential service enhancements in station areas. The study has two major goals:

- Suggest changes in the bus network that feeds the planned subway extension, particularly for routes that closely parallel the subway alignment for a significant portion of their route.
- Define operational needs at subway stations, including space for stops and layovers and primary transfer locations. This in turn will guide station designers in locating physical features such as bus stops, turnaround/bus loops, and station entrances.

Locating bus stops in relation to subway entrances is a key consideration for bus/rail interface. There also is a need to preserve as much sidewalk capacity as possible to accommodate rail passengers and other pedestrians.

With regard to potential operational features of local bus service, bus cut-outs (off-line stops) are not always preferable to on-street (on-line) stops due to potential conflicts when buses reenter traffic. The majority of bus stops at existing Red/Purple Line stations (North Hollywood, Universal City, and Union Stations excluded) involve on-line facilities.

To assess potential future access improvements to subway stations, project design efforts included a study of circulation needs in each station area, including access to local bus networks. The results of this study are available in the Westside Subway Extension Station Circulation Report and Section 3.7 of this Final EIS/EIR. To ensure the best connection to local bus service, the following mitigation measure is included in the Final EIS/EIR:

- T-16-Study Bus-Rail Interface: Metro will continue to assess bus-rail interface. As a result of further study Metro, working with affected jurisdictions, will relocate bus stops at some LPA stations to minimize the number of streets riders must cross to transfer between the LPA and interfacing bus lines.

Metro will work with LADOT on future DASH access at stations along the Westside Subway Extension.

Please refer to Section 8.8.8 of the Final EIS/EIR for more detailed responses to concerns related to station connectivity. In addition, the Westside Subway Extension Station Circulation Report provides a comprehensive station access circulation study of Project stations and Section 3.7 provides an analysis of potential impacts to the bus network. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment has been noted. As mentioned in the response to comment number 615-36, curb cut outs are not currently planned for any stations. Metro has and will continue to coordinate with LADOT and BOE.

Your comment has been noted. Metro has and will continue to coordinate with LADOT regarding these issues.

As noted in the response to comment number 615-4 above, the Wilshire/Crenshaw Station is not included in the LPA selected by the Metro Board of Directors.

Your comment regarding entrances to the Wilshire/Crenshaw Station has been noted. As noted in the response to comment number 615-4 above, the Wilshire/Crenshaw Station is not included in the LPA selected by the Metro Board of Directors. All stations, with the exception of the Westwood/UCLA station, will have one portal. Westwood/UCLA will have two portals due to higher ridership.
Environmental and Mitigation

615-49
Pre and post video required, with rehabilitation or replacement required for damaged sewers, Man Holes, lateral connections and laterals (BOE).

Safety & Public Health

615-50
MTA must develop an emergency spill response plan for sewer damage (BOE).

Settlement

615-51
Settlement limited to 0.25 inch and the following shall be followed:

- Mitigate by relocating sewers, grouting and soil stabilization.
- Settlement detection required for all major and primary outfalls that are crossed, or paralleled.
- Surveyed settlement detection required for all small sewers and MHs crossed or paralleled.
- Cracked pipes, broken joints, induced sags in sewers are not acceptable
- Replacement of clay sewer pipe damaged by tunnel or surface construction does not constitute a betterment.
- Rehabilitation or replacement of damaged T-Lock protected sewers does not constitute a betterment (BOE).
Street Lighting

615-52 Temporary street lighting is required as a part of this project. Number of temporary units installed and the spacing between adjacent locations will match the existing street lighting system in service on a one for one basis (BSL).

615-53 Park and Ride facilities and parking lots design shall include public street and pedestrian lighting improvements in and around the facilities that meet current BSL standards (BSL).

615-54 Any major street work that takes place should give consideration to the impact of existing public lighting and requirements to future lighting improvements. Any modifications of the present street layout (stripping, parking lane removal, right of way acquisition, bike lane, etc.) and circulation of traffic/pedestrians most likely will involve redesign and reconstruction of the lighting system for the new configuration (BSL). Any street/pedestrian lighting improvements that create new assessments or increase existing assessments to property owners will require the Proposition 218 process to take effect. This process not only requires community participation but also their approval throughout a ballot process. This process typically takes about 9 months to complete (BSL).

615-55 The lighting assessment is paid by property owners through the County Property Tax Bill. Assessments must be confirmed by City Council before commencing construction of the street lighting system. If the project impacts area that contain expensive Historical/Ornamental poles in the City of Los Angeles, these Historical/Ornamental street lights shall be retained and improved (refurbished and upgraded) in the proposed project area. If there are new street lights to be installed along with the existing Historical/Ornamental street lights, BSL will require new street lights for these area to match the existing Historical/Ornamental street lights (BSL).

615-56 Streets affected by any Light Rail Tracks and subway stations will require lighting improvements and new installations to meet current City of Los Angeles Standards. All new street lighting improvements will be installed with Light Emitting Diodes (LED) light source. LED lights provide beneficial environmental impact with improved energy efficiency (BSL).
As described in the project analysis, the proposed Build Alternatives would be consistent with and support existing land use policies in the City of Los Angeles. A list and description of relevant plans is included in the Land Use and Development Opportunities Report (August 2010). Chapter 3 of that report describes the regulatory framework in place for each station area, and should be amended to include the Miracle Mile Community Design Overlay (CDO) which implements design requirements for projects along Wilshire Boulevard between Sycamore and Fairfax Avenues. The report should also be amended to include the following Historic Preservation Overlay Zones (HPOZs) (Section 4.1 – Land Use) (DCP):

- Wilshire Park HPOZ (south of Wilshire, east of Crenshaw)
- Windsor Village HPOZ (south of Wilshire, west of Crenshaw)
- Country Club Park HPOZ (south of Olympic, east of Crenshaw)
- Carthay Circle HPOZ (south of Wilshire, west of Fairfax)

In Table 4-12, please make the following notations:

- The Wilshire/Crenshaw Station is surrounded in each direction by Historic Preservation Overlay Zones (Windsor Village, Wilshire Park, Hancock Park, and Windsor Square) (DCP).
- A one-half mile radius of the Wilshire/La Cienega Station includes the Carthay Circle Historic Preservation Overlay Zone in the City of Los Angeles (DCP).
- A one-half mile radius of the Santa Monica/Fairfax Station includes the Spaulding Square Historic Preservation Overlay Zone in the City of Los Angeles (DCP).
Your comment has been noted. Table 4-1 in the Final EIS/EIR provides a high level overview of relevant land use policies. The suggested language from the Urban Form Chapter of the General Plan Framework Element has been included in the Westside Subway Extension Addendum to the Land Use and Development Opportunities Report.

Any transit oriented development that could occur as a result of the proposed project is anticipated to be consistent with current growth projections and would not significantly alter the composition and character of existing land uses.

Your comment regarding transit-oriented development has been noted. Metro will coordinate with the City of Los Angeles during station area planning.

Your comment on the Wilshire/Crenshaw Station has been noted. However, the Wilshire/Crenshaw Station is not included in the LPA selected by the Metro Board of Directors and is not included in the Final EIS/EIR. Please refer to the response to comment number 615-4 regarding the Wilshire/Crenshaw Station.

It should also be noted that although the Wilshire/Crenshaw Station is not in a designated regional center, Figure 4-7 indicates that SCAG forecasts the addition of 4,742 new jobs in that station area by 2035. This station is discussed as having a low potential for development; however, Figure 4-9 depicts a medium amount of growth potential. A number of historic districts may limit development in surrounding neighborhoods; however, the Park Mile Specific Plan regulates development along Wilshire Boulevard corridor. The plan provides land use regulations that generally prohibit mixed-use development, but allow for heights from 45 to 75 feet and FAR of 3:1 for commercial and residential uses. Currently, along Wilshire Boulevard there are several vacant lots available as well as underdeveloped lots that could provide additional growth potential. The data provided does not seem to support the characterization of this area as having "low growth potential." (DCP)
Correction: Figure 4-9 should be amended to show that there are no maximum height limit in place in Century City near the proposed stations (DCP).

On page 4-213, the list of schools which are immediately adjacent to the alignment should be amended to include John Burroughs Middle School (Alternatives 1-5, and MOS 1 and 2). Burroughs Middle School is located at 600 S. McCadden Place, occupying the northeast corner of Wilshire Boulevard and McCadden Place in Hancock Park (Section 4.13 – Parks and Community Services and Facilities) (DCP).

Page 4-285 – The construction impacts may conflict with the requirements of the Miracle Mile CDO that commercial buildings along Wilshire Boulevard provide a main entrance and pedestrian access from the sidewalk on Wilshire (4.15.2 – Construction Impacts) (DCP).

On page 4-63, the list of local planning policies in the City of Los Angeles that apply to the Project should be amended to include the Wilshire Community Plan, Hollywood Community Plan, Westwood Community Plan, Miracle Mile Community Design Overlay (CDO), as well as the following Historic Preservation Overlay Zones (HPOZs): Wilshire Park, Windsor Village, Hancock Park, Windsor Square, Country Club Park, and Carthay Circle (Section 4.3 – Visual Quality (DCP)).

On page 4-66, there is a reference to a Station Planning & Urban Design Concept Report. Please provide a reference to the location of this document and the design guidelines contained therein (DCP).

Regarding the proposed mitigation measures listed in Section 4.3.6, please see previous comments on VIS-1 and VIS-4, provided above under Executive Summary section (DCP).

Station sites must be designed to accommodate any future street dedication and widening, as well as provisional crosswalks, consistent with the Transportation Element of the City's General Plan (LADOT).

Your comment has been noted. Figure 4-9 from the Draft EIS/EIR has been amended to show that there are no height restrictions near the proposed stations in Century City. This revised figure is included in Section 4.1.3 of the Final EIS/EIR.

Your comment on the omission of John Burroughs Middle School from the tables and discussion is noted. The list of schools on page 4-213 of the Draft EIS/EIR has been amended per the comment. The revised list is included in Section 4.13 of the Final EIS/EIR.

The comment has been noted. Metro has and will continue to coordinate with the City of Los Angeles through design and construction of the Project to maintain access to all businesses at all times. Access to commercial buildings with a main entrance and pedestrian access along Wilshire Boulevard in the Miracle Mile CDO will generally be maintained. Any access disruption, if needed as determined by Metro working with the City of LA, would be minimal and temporary. The following mitigation measures are included in the Final EIS/EIR to ensure access to businesses are maintained throughout construction of the Project:

- CON-1-Signage
- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
- TCON-4-Transportation Management Plan
- TCON-7-Parking Management
- TCON-8-Parking Monitoring and Community Outreach
- TCON-10-Pedestrian Routes and Access
- TCON-11-Bicycle Paths and Access

Refer to Section 4.15 of the Final EIS/EIR for more detailed information on construction impacts and recommended mitigation measures.

Your comment has been noted. The Final EIS/EIR has been updated to include the suggested policies.

The Westside Subway Extension Station Planning and Urban Design Concept Report is available for review at the Metro office. General design guidelines can be found in Sections...
615-66
2.2 Station Design Toolkit and 3.2 Quick Reference: Over-Arching Urban Design Principles and Station Planning Tools.

615-67
Your comment has been noted. Please see response below to comment number 615-96 on VIS -1 and VIS-4.

615-68
Your comment has been noted. Metro has and will continue to coordinate with LADOT regarding station design.
Traffic impacts associated with LPA construction include reduced roadway traffic lanes and temporary street closures that could result in major traffic disruptions and bottlenecks. These impacts are associated with contractor work and storage areas, stations, crossovers, mining entry/exit locations, TBM operations and support activities, truck haul routes, transportation of oversized construction materials, station entrances, station appendages, grout injection, and drop holes for the LPA and are detailed in Section 3.8.2 of this Final EIS/EIR.

Subway stations are built by excavating the site for the station box and then building the station below ground. If the station is built under a street, it is covered over with concrete decking during construction to allow traffic to continue to flow overhead. Traffic will be disrupted at the beginning of station construction to allow for initial excavation and installation of the concrete decking, and again at the end to remove the decking and reconstruct the street. The Traffic-Control Activities during Station Construction table in Section 3.8 details the traffic-control activities during station construction and the duration of each activity.

Anticipated truck haul routes consist of major city arterial streets that trucks will use to transport spoils, muck, material, and equipment between the construction laydown site locations and the offsite disposal location using the nearest freeway interchange. To minimize peak-period traffic disruptions, haul truck activity will occur during off-peak and nighttime periods. These routes generally follow major commercial streets and avoid residential areas to the greatest extent possible. The proposed routes identified are provided in Section 3.8 of this Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report. The routes may be updated and revised once additional information, such as construction sequencing, is finalized. In addition, the proposed routes will be subject to the approval of Metro and appropriate departments at Federal, State, and local agencies. The routes will be finalized in coordination with local jurisdictions and will be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods.

TBM components will be transported to the tunnel construction site by truck. Several oversize deliveries will be required, some during nights and weekends. However, these large component deliveries are limited to the initial setup period for the TBM, as well as during the removal period. If a TBM is re-used to excavate a subsequent tunnel, the entire machine may be transported by road from one site to the next. This would require full or partial road closures, typically at night.

Following completion of the Project, if physical damage to haul routes was found, affected roads will be treated in a manner that returns affected facilities to pre-construction conditions. This work will restore the street or ground surface to its original condition, or better. Site restoration operations will closely follow completion of the station structures.
maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic.

Backfill material will be trucked in, placed, and compacted. During backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks will be restored, and the permanent street will be constructed, including paving, striping, and signage. Streets, sidewalks, and landscaping will be restored in accordance with City standards.

To minimize impacts to traffic circulation, the following mitigation measures will be implemented during construction:

- TCON-1—Traffic Control Plans
- TCON-2—Designated Haul Routes
- TCON-3—Emergency Vehicle Access
- TCON-4—Transportation Management Plan
- TCON-5—Coordination with Planned Roadway Improvements

TCON-2, TCON-3, TCON-4, TCON-5 were added during this Final EIS/EIR phase based on additional analysis of construction impacts on traffic circulation and concerns raised by the public. With implementation of the mitigation, construction-related adverse effects on traffic circulation will be reduced for adjacent commercial areas and residential neighborhoods. Although the construction impacts on traffic circulation identified will be temporary, impacts and/or residual impacts after mitigation will remain significant and unavoidable during the construction period.

All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports

The comment has been noted. Please see the response to comment number 615-69 above. Continuous coordination with City of Los Angeles Department of Transportation (LADOT) and Bureau of Engineering (BOE) will take place throughout the design process to address and identify mitigation measures to maintain traffic flow, accommodate pedestrian and bicycle movement, and minimize disruption during construction. Once construction lay down areas, site ingress/egress access points and construction sequencing of activities are identified and refined, truck haul routes, off-peak period road closures, detour routes, and worksite traffic control plans will be prepared and reviewed by the City's Transportation Construction Traffic Management Committee (TCTMC) as well as LADOT's Temporary Traffic Control office.

Your comment regarding parking during construction has been noted. Contractor staging
areas (also referred to as "laydown areas") will be necessary for tunnel construction, stations, and ancillary facilities. Off-street space will be needed for setup, insertion, operation, and extraction of equipment and materials to the tunnel and station excavations. Section 2.6 of the Final EIS/EIR identifies the locations of the laydown areas.

Work areas will be needed to support tunnel excavation operations, including processing and removing tunnel spoils (excavated materials), handling precast concrete tunnel-lining segments, and tunnel utilities (such as ventilation, water supply and return, and power supply). In-street work areas will only be used when no off-street alternatives exists. Temporary easements, typically a portion of the sidewalk, traffic lanes, and/or parking areas, may be required at various locations for staging. During construction, existing on-street parking and loading zones will be temporarily removed where traffic lanes are closed or eliminated temporarily. In addition a number of off-street parking spaces will be removed during construction of the Wilshire/La Cienega, Wilshire/Rodeo, Century City Santa Monica option, Westwood/UCLA (On-Street and Off-Street), and Westwood/VA Hospital Stations (North and South). The following mitigation measures will be implemented to minimize impacts to parking during construction:

• TCON-7-Parking Management
• TCON-8-Parking Monitoring and Community Outreach
• TCON-9-Construction Worker Parking

However, even with the implementation of these mitigation measures, a temporary adverse and unavoidable parking impact will remain during construction. Continuous coordination with City of Los Angeles Department of Transportation (LADOT) and Bureau of Engineering (BOE) will take place throughout the design process to address and identify mitigation measures to maintain traffic flow and minimize parking impacts during construction. Once construction lay down areas, site ingress/egress access points and construction sequencing of activities are identified and refined, appropriate parking circulation plans and parking management programs will be prepared and reviewed by City of Los Angeles Department of Transportation (LADOT), local communities and parking facility operators.

Please refer to Section 3.8 of the Final EIS/EIR for more detailed information on transportation related construction impacts. In addition, the Westside Subway Extension Construction Traffic Analysis Report provides more information on construction related parking affects and Westside Subway Extension Displacement and Relocation Supplemental Technical Report describes staging areas identified for the LPA and any associated parking losses. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment regarding construction impacts to pedestrians and bicyclists has been noted. In general, sidewalk access will be maintained on both sides of the street at Metro
construction sites throughout the construction period. Pedestrian access to all businesses will be maintained during essential business operating hours without any requirement for the business owners to make such a request. All temporary sidewalk designs shall be submitted to Metro and agencies having jurisdiction for approval prior to installation. Temporary sidewalks must be well built of approved material (wood or other), be ADA compliant, and have a well built cover. No rough edges or damaged wood will be allowed.

When pedestrians are diverted into the street or adjacent to an open trench, K-rail type concrete barriers or other approved barrier types will be used to separate pedestrians and vehicular traffic. During certain circumstances, sidewalk closures may be necessary for limited periods. At these specific locations, limited closures will be implemented after acceptance and approval by the affected agency having jurisdiction. In addition, only one side of the street will be closed at a time.

During construction, bike routes will be maintained past all construction sites, whether via widened sidewalks or signed or striped bike detour routes.

The following mitigation measures will reduce the adverse effects to pedestrians and bicyclists during construction:
- TCON-10-Pedestrian Routes and Access
- TCON-11-Bicycle Paths and Access

Refer to Section 3.8 of the Final EIS/EIR for more detailed information on construction impacts related to pedestrians and bicycles.

Designated haul routes will be identified during the final design phase. These routes would be identified in coordination with local jurisdictions and would be located so as to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods. Metro has initiated meetings with the City of LA and a Transportation Construction Traffic Management Committee will be established and there will be extensive coordination in advance of any construction.

Refer to Section 3.8 of the Final EIS/EIR and the Westside Subway Extension Construction Traffic Analysis Report for more information on proposed haul routes. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
After completion of construction, street/site restorations will restore the street or ground surface to its original condition. Site restoration operations will closely follow completion of the station structures. To maintain traffic flow, one-half of a street will be restored at a time and/or restoration will occur over weekends to enable an entire street to be temporarily closed to through traffic. Backfill material will be trucked in, placed, and compacted and, during backfilling over stations, utilities will be installed along with new sewer manholes and cable/duct vaults. Sidewalks would be restored, and the permanent street would be constructed, including paving, striping and signage. Streets, sidewalks and landscaping would be restored in accordance with City standards.

Your comment regarding utility relocation during construction has been noted.

Underground utilities were researched and noted on drawings as part of the conceptual design phase. During further design phases and preconstruction activities, existing utilities will be more closely inspected and evaluated, including depth, condition and exact location. An operation called “potholing” is typically done to physically locate certain utilities, which can then be appropriately marked or protected. It is necessary to relocate, modify or protect in place all utilities and underground structures that will conflict with excavations.

Where in-place protection is not sufficient, relocation is required. Utility relocations can be done prior to or during construction, depending on the sensitivity of the utility. Shallow utilities, such as maintenance holes or pull boxes, will interfere with excavation work and require relocation. Affected utilities are expected to include storm drains, sanitary sewers, water lines, power lines, gas pipelines, oil pipelines, electrical duct banks and transmission lines, lighting, irrigation lines, and communications such as phone, data and cable TV.

Utility relocations will be coordinated with the utility owner. Relocation and protection of underground utilities will require excavation to the depth of the existing utility line and installation of a replacement utility in a new location. This will occur within the affected right-of-way and on nearby streets, as required. Utility relocations often entail some form of temporary service interruptions. These are typically planned for periods of minimum use (such as nights or weekends), so that outages have the least impact on users.

Utilities such as high-pressure water mains and gas lines, which could be a hazard during station construction and that are not to be permanently relocated away from the work site, could be removed from the construction area temporarily. Utilities that do not require permanent or temporary relocation can be reinforced, if necessary, and supported in place by hanging from deck beams.

In addition to utility relocations, various new utilities will be installed to accommodate construction needs. These include, but are not limited to, communications cables...
Sewer connection laterals are private sewers owned by the landowner. Access and maintainability may not be removed without approval and provision of an alternate means of maintenance access. Maintain access and maintainability for all HCs and HC laterals (BOE).

Sewers are not foundations for construction. Bridge piers and all foundations shall be designed so that the influence line for soil loading shall pass below and outside of all sewer easements. The City will not accept any construction that requires the City to shore any future easement excavation to support exterior imposed loading, or to prevent damage to an outside structure which would have been obviated by extending the piers, foundations, piles or other support (BOE).

Structures or appurtenant features built over the sewer easement or right of way are considered to be temporary structures that may be moved or demolished for necessary sewer repair or maintenance. Any floor shall be built to span and bridge the sewer easement or right of way and to be self supporting with foundations extending below the sewer easement or right of way (BOE).

Plans prepared for sewer rehabilitation or replacement must be prepared with sewer system stationing, not with street stationing (BOE).

At the present time, however, MTA appears not to have a process for evaluating and confirming how or where this critical interface is to be accomplished, nor for undertaking the important design work that would insure that present construction accommodates this future need in the most cost-effective manner feasible (CRA).

615-75  
fiber optic lines), electrical duct-banks, drainage facilities, water supply lines and lighting.

615-76  
Metro received the attachment containing the Bureau of Engineering’s current and future projects. These projects were reviewed to determine potential conflicts, benefits and cumulative impacts with the Project. For cumulative impacts see Section 4.17 of the Final EIS/EIR.

615-77  
Your comment indicating that the subway crosses major outfalls, primary sewers, and small sewers in the City of Los Angeles has been noted. This information will be used in developing existing condition surveys of the facilities. Monitoring and protection plans will be developed during Final Design.

615-78  
Your Comment indicating that the subway parallels primary sewers, and small sewers in the City of Los Angeles has been noted. Please see response above to comment number 615-77.

615-79  
Your comment has been noted. Detailed information such as SIMMS numbers for sewers at some of the stations have been incorporated during Preliminary Engineering. The remaining detail design will be completed during Final Design and will be submitted to BOE for review.

615-80  
Your comment has been noted. Please see response above to comment number 615-79 regarding utility relocation.

615-81  
Your comment has been noted. Please see response above to comment number 615-75 regarding utility relocation.

615-82  
Your comment has been noted. Please see response above to comment number 615-75 regarding utility relocation. All sewer construction or rehabilitation work will be performed per city standards that have been adopted by the City during Final Design.

615-83  
Your comment has been noted. Metro will meet all requirements of the Master Cooperative
615-83
Agreement between CLA and MTA including sewer encasement and relocation requirements as agreed by Metro and CLA. Please see response above to comment number 615-77 and 615-79.

615-84
Your comment has been noted. Please see response above to comment number 615-75 regarding utility relocation.
615-85

Your comment regarding parking during construction has been noted. Contractor staging areas (also referred to as “laydown areas”) will be necessary for tunnel construction, stations, and ancillary facilities. Off-street space will be needed for setup, insertion, operation, and extraction of equipment and materials to the tunnel and station excavations. Section 2.6 of the Final EIS/EIR identifies the locations of the laydown areas.

Work areas will be needed to support tunnel excavation operations, including processing and removing tunnel spoils (excavated materials), handling precast concrete tunnel-lining segments, and tunnel utilities (such as ventilation, water supply and return, and power supply). In-street work areas will only be used when no off-street alternatives exists. Temporary easements, typically a portion of the sidewalk, traffic lanes, and/or parking areas, may be required at various locations for staging. During construction, existing on-street parking and loading zones will be temporarily removed where traffic lanes are closed or eliminated temporarily. In addition a number of off-street parking spaces will be removed during construction of the Wilshire/La Cienega, Wilshire/Rodeo, Century City Santa Monica option, Westwood/UCLA (On-Street and Off-Street), and Westwood/VA Hospital Stations (North and South). The following mitigation measures will be implemented to minimize impacts to parking during construction:

• TCON-7-Parking Management: A parking management program will be developed to minimize impacts due to temporary removal of on- and off-street parking within the construction work. The program will incorporate appropriate parking-control measures, replacement parking within a reasonable distance from the affected parking locations, if available, or other transportation demand management (TDM) strategies. Development of the parking management program will be coordinated with the appropriate local jurisdictions and affected communities or property owners and be incorporated into the TMP.

• TCON-8-Parking Monitoring and Community Outreach: In addition, a parking monitoring and community outreach program will be established during the construction phase of the LPA to monitor on-street parking activity. If a parking shortage is identified during construction, Metro will work with the appropriate local jurisdiction and affected communities or property owners to assess the shortage level and implement potential solutions as part of the parking management program.

• TCON-9-Construction Worker Parking: Metro will require that all construction contractors identify adequate off-street parking for construction workers at Metro-approved locations. This will occur for each construction site to minimize additional loss of parking. Metro will work with construction contractors on implementation of adequate off-street parking for construction workers.

Under the TCON-8, residential parking districts and shared parking districts and shared parking programs, as suggested in the comments, could be considered.
Please refer to Section 3.8 of the Final EIS/EIR for more detailed information on transportation related construction impacts. In addition, the Westside Subway Extension Construction Traffic Analysis Report provides more information on construction related parking affects and Westside Subway Extension Displacement and Relocation Supplemental Technical Report describes staging areas identified for the LPA and any associated parking losses. All reports are available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.

Your comment regarding construction impacts to local businesses and communities has been noted.

Metro has always been committed to maintaining business and residential access during construction. Construction impacts will be temporary and limited in areas as construction proceeds along the length of the Locally Preferred Alternative. Metro will coordinate with affected residents and businesses prior to construction. A detailed survey of community stakeholders and businesses will be conducted. A construction safety campaign will be developed and community response protocols (notification of construction activities, hot lines, etc.) will be produced. A public involvement plan will be developed prior to each construction phase and will be tailored to the construction phase. Metro will maintain the Project website, which will provide information to the public regarding construction phasing. Metro will develop a program tailored for different locations and needs. The program will involve signage and marketing to assistance to businesses, identification of parking alternatives, and other measures.

Metro also considers the cumulative impact of multiple projects in the Study Area under construction at the same time as the subway extension. Careful coordination will occur with local jurisdictions to ensure that potential impacts from the simultaneous construction of multiple projects are addressed and mitigated to the extent feasible. Construction will have temporary impacts on communities, including commercial and industrial businesses, particularly those near or adjacent to construction sites. Street closures are expected to impact mobility and access to community facilities, as much of the construction activity will be centered on Wilshire Boulevard, which is a central point of access for the neighborhoods. Sidewalk space may be obstructed temporarily for station and alignment construction, thereby reducing business access but additional access will be maintained to businesses and residences at all times. In addition to temporary street and sidewalk closures, construction activities will also reduce on-street and off-street parking. This could affect access to and profitability of existing businesses as customers may choose to avoid ongoing construction. Business impacts could also include reduced visibility of commercial signs and business locations.

These construction impacts to neighborhoods and communities will be temporary adverse
impacts, but the following mitigation measures will reduce the adverse effects for all adjacent neighborhoods:

- CON-1-Signage
- TCON-1-Traffic Control Plans
- TCON-2-Designated Haul Routes
- TCON-3-Emergency Vehicle Access
- TCON-4-Transportation Management Plan
- TCON-7-Parking Management
- TCON-8-Parking Monitoring and Community Outreach
- TCON-10-Pedestrian Routes and Access
- TCON-11-Bicycle Paths and Access

With implementation of these mitigation measures, there will be no adverse effect to businesses during construction.

Refer to Section 4.15 of the Final EIS/EIR for more detailed information on construction impacts.
Your concurrence with the boundaries of the Area of Potential Effect has been noted.

All California Department of Parks and Recreation (DPR) forms referenced in the Draft EIS/EIR but missing from Appendix E of the Westside Subway Extension Historic Property Survey Report are included in an appendix to the Westside Subway Extension Historic Property Supplemental Survey Report prepared in support of the Final EIS/EIR. The Westside Subway Extension Historic Property Supplemental Survey Report also includes updated DPR forms and additional DPR forms for built environment resources identified within the revised APE for the Locally Preferred Alternative.

Your comment has been noted, but the Locally Preferred Alternative (LPA) route chosen by the Metro Board will not extend to West Hollywood. The revised Area of Potential Effect for the LPA does not include the Hollywood Walk of Fame since the Project will not impact that section of Hollywood Boulevard.

One of the entrance location options for the Wilshire/Fairfax Station is located in the interior of the May Company Building (Historic-Cultural Monument #566; constructed 1939) now part of the LACMA campus. Some alternatives discuss utilizing the interior of the building for a potential entrance; this potential work would most likely be subject to review and approval by the Cultural Heritage Commission. While the building’s City-level designation is limited to the exterior portions of the building, the work may have enough of a potential impact to the building’s exterior to merit review by the Cultural Heritage Commission (DCP).

OHR staff concurs with the finding that the Johnie’s Coffee Shop building is eligible as a historic resource and with the finding of No Adverse Effect (DCP).

Based on a review of the historic resources inventory, the DEIR appears to have neglected to cite the Security-First National Bank building (Historic-Cultural Monument 813) and the Clem Wilson Building (California Register) (DCP).

The Final EIS/EIR has been amended to include the Security First National Bank Building at 5207-5209 Wilshire Boulevard in the table titled "Effects to Historic Properties under Section 106" and in the discussion of "Environmental Impacts/Environmental Consequences" in Section 4.14.5 of the Final EIS/EIR. The E. Clem Wilson Building at 5225 Wilshire Boulevard will not be directly or indirectly affected by the Project, if the LPA...
is implemented. These two properties are also discussed in the Westside Subway Extension Historic Property Supplemental Survey Report prepared in support of the Final EIS/EIR and available on the Metro Westside Subway Extension Project website: www.metro.net/projects/westside/westside-reports.
Your comment on future transit connections to the Crenshaw/LAX Line has been noted. In November 2009, the Metro Board voted to approve the Locally Preferred Alternative (LPA) for the Crenshaw/LAX Transit Corridor. The Crenshaw/LAX LPA includes an 8.5-mile light-rail line that would connect the Metro Green Line and the Expo Line along Crenshaw Boulevard. The Crenshaw/LAX LPA would not connect the line to Wilshire Boulevard.

A potential connection to Wilshire Boulevard was studied in a May 2009 Metro feasibility report. Although beyond the available project funding, this report determined that a connection at Wilshire/La Brea instead of Wilshire/Crenshaw would be more cost-effective and more compatible with existing land uses. Please refer to the Crenshaw Transit Corridor Project: Final Feasibility Study – Wilshire/La Brea Light Rail Transit Extension, available on the Crenshaw Transit Corridor Project page on the Metro website.

Keeping these recommendations in mind, the Westside Subway Extension Project, if approved for implementation, will be designed so as not to preclude future northward extensions of the Crenshaw/LAX line along La Brea, La Cienega, or San Vicente.

Your comment has been noted. The text has been revised in the Final EIS/EIR to provide additional clarification between the Metro Rail Transit Design Criteria and Standards and the Station Planning and Urban Design Concept Report.

The text has been revised in the Final EIS/EIR and is included in Table S-7.

Your comment has been noted. The text in Section 4.3 of the Final EIS/EIR has been revised to include references to the Metro Rail Transit Design Criteria and Standards as well as the Station Planning and Urban Design Concept Report.
Appendix

The Bureau of Engineering has reviewed all the plans and drawings in the EIR/EIS document and the following comments need to be addressed in the Final Environmental Impact Report document (BOE):

615-97
- Call out as-built # and ownership for all storm drains and sewers

615-98
- Call out all utility crossings in profiles

615-99
- Call out City boundaries

615-100
- Drawing C-107:
  - 87" RCP SD is 84" RCP

615-101
- Drawing C-113:
  - Cannot verify the existence of the two 54" RCP SD in Santa Monica Blvd. Please provide as-built # confirming its existence. The 54" SD along Avenue of the Stars is verified by D-7378.
  - Call out Avenue of the Stars on plan

615-102
- Drawing C-114:
  - Correct the callout for S Beverly Glen Blvd in profile
  - Call out Comstock Ave on the plan and profile

615-103
- Drawing C-116:
  - Correct the stationing in the titleblock to Station 303+00 to 415+00

615-104
- Drawings C1-117, C2-117 & C3-117:
  - Provide as-built verifying the existence of the 108" RCP west of Gayley Ave
  - 60" RCP callout in plan for SD in Lindbrook Dr is placed incorrectly or should be 48" RCP. The SD in Lindbrook Dr is 60" RCP from Gayley Ave to Westwood Blvd and 48" RCP east of Westwood Blvd.
  - Delete 48" RCP SD callout south of Wilshire Blvd
  - Delete 72" RCP SD callout south of Wilshire Blvd

For detailed utility information, please see existing composite utility plans in the upcoming PE phase.

615-98
For detailed utility information, please see existing composite utility plans in the upcoming PE phase.

615-99
City boundaries have been called out in Appendix A of the Final EIS/EIR.

615-100
Utility note has been corrected.

615-101
For detailed utility information, please see existing composite utility plans in the upcoming PE phase. Street has been called out on plans.

615-102
Information has been corrected, please see Appendix A, Plan and Profile, in the Final EIS/EIR.

615-103
Information has been corrected, please see Appendix A, Plan and Profile, in the Final EIS/EIR.

615-104
For detailed utility information, please see existing composite utility plans in the upcoming PE phase.
Appendix H - Response to Comments

This is no longer applicable, the commented routes are not included in the LPA.

615-105
This is no longer applicable, the commented routes are not included in the LPA.

615-106
This is no longer applicable, the commented routes are not included in the LPA.

615-107
This is no longer applicable, the commented routes are not included in the LPA.

615-108
This is no longer applicable, the commented routes are not included in the LPA.

615-109
This is no longer applicable, the commented routes are not included in the LPA.

615-110
This is no longer applicable, the commented routes are not included in the LPA.

615-111
This is no longer applicable, the commented routes are not included in the LPA.

615-112
This is no longer applicable, the commented routes are not included in the LPA.

Drawings C2-117 to C2-119:
- Titleblock should read Alternative 2 & 4

Drawing C3-119:
- Please revise the 72" RCP SD call out on plan view to 81" RCP as shown in profile

Drawing C3-120:
- 81" RCP SD callout along Amherst Ave in plan view is 78" RCP
- 45" RCP SD callout in profile should be 48" RCP. SD in plan view is 45" RCP north of Wilshire Blvd and 46" RCP south of Wilshire Blvd.

Drawing C-202:
- Call out street name perpendicular to Highland Ave along subway extension alignment.

Drawing C-205:
- 54"x51" RCB SD call out should be 54"x48" RCB. The SD is 54"x51" RCB south of Santa Monica Blvd.

Drawing C-208:
- Show north arrow
- Provide as-built for 10.5'x20' RCB

Drawing C-209:
- Double 21'-6"x6' & 21'-6"x21' RCB SD should be 18'x17' RCB on plan view
- Correct call out for Double 9'x6'-6" RCB in plan and profile to Double 9.5'x6.5" RCB
- Provide as-built for the 12'x17' RCB and 10.5'x20' RCB

Drawings CM-101 & CM-102:
- 87" RCP SD call out is actually 84" RCP. The SD along Ogden Dr at Wilshire Blvd is made of an 87" RCP and a 10.5' x 4' RCB.
This is no longer applicable, the commented routes have been eliminated from currently adopted alternatives.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

This is no longer applicable, the commented routes are not included in the LPA.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

- Drawing CM-102:
  - Call out unidentified pipe crossing in profile

- Drawing CM-201:
  - Provider as-built for 54” RCP SD

- Drawing C-701 C:
  - Provide as-built for 15’-20’x10.5’ RCB & 17’-6”x11’ RCB
  - Double 21’-6”x6’ & 21’-6”x21’ RCB is actually 18’x17’ RCB
  - 9’x6.5’ RCB SD is actually 9.5’x6.5’ RCB

- Drawing C-702C:
  - Call out street name that coincides with the subway extension alignment

- Drawing C-703K:
  - Midvale Ave north of Wilshire Blvd is Gayley Avenue Please revise.

- Drawing C-701L:
  - Century Park call out in profile is West and not East. Please revise.

- Drawing C-703L:
  - Delete 60” RCP SD call out on plan & profile

- Drawings C-704L, C-705N, C-705O, C-704P, S-704R, C-705T, C-705U:
  - Cannot verify 108” RCP SD, please provide as-built
  - Delete 48” RCP & 72” RCP SD call out just south of Wilshire Blvd
  - 60” RCP SD call out for SD along Lindbrook Ave must point to SD alignment west of Westwood Blvd. SD along Lindbrook Ave is 48” RCP b/wn Westwood Blvd and Tiverton Ave, and 42” from Hilgard Ave to Tiverton Ave
Please see the revised Appendix B, Station Site Plans, in the Final EIS/EIR.

This is no longer applicable, the commented routes are not included in the LPA.
615-129
This is no longer applicable, the commented routes are not included in the LPA.

615-130
This is no longer applicable, the commented routes are not included in the LPA.

- **Drawing G-002:**
  - Drawing pages for Option 6 & Special Trackwork Option are missing in the package
  - The drawing title for Y-024 does not match what is shown on the sheet

- **Drawing G-007:**
  - Revise the listed sheet nos. for Alternative 3 to include C3-117 to C3-125 and not C4-117 to C4-125
  - Per Executive Summary S-15, Alternative 4 should be Westwood Hollywood Extension and Wilshire/Western to Westwood/VA Hospital Extension. Please revise sheet nos., stationing and description accordingly
Appendix H - Response to Comments

Please see the revised Appendix A, Plan and Profile, in the Final EIS/EIR.

- Drawings C-101 to C-116, C1-117 to C1-118, C2-117 to C2-119, C3-117 to C3-125 and C-201 to C-211
  
  o Call out all utilities on plan. Please refer to the City as-builts and substructure maps because not all utilities are shown. Please see list of substructure maps for Westside Subway Extension alignment located in City of LA R/W.

| Sub-104-6 | Sub-135-181-6A | Sub-804-B | Sub-362-8 |
| Sub-105-10 | Sub-135-181-6B | Sub-132-153-B | Sub-362-9 |
| Sub-105-9 | Sub-135-181-5A | Sub-132-153-A | Sub-251-8 |
| Sub-105-6 | Sub-135-181-5B | Sub-785-A | Sub-138-173-C |
| Sub-105-7 | Sub-135-177-8A | Sub-132-149-D |
| Sub-105-6 | Sub-135-177-8B | Sub-129-145-B |
| Sub-105-5 | Sub-135-177-7A | Sub-129-145-D |
| Sub-319-7 | Sub-135-177-7B | Sub-129-145-C |
| Sub-319-6 | Sub-135-177-6A | Sub-128-145-A |
| Sub-319-7 | Sub-135-177- |
| Sub-320-11 | FA | Sub-800-B |
| Sub-320-10 | Sub-252 | Sub-361-7 |
| Sub-135-185-9A | Sub-265 | Sub-361-13 |
| Sub-135-185-9B | Sub-135-173-D | Sub-361-16 |
| Sub-135-185-8A | Sub-135-161-C | Sub-362-2 |
| Sub-135-185-7A | Sub-132-161-A | Sub-362-3 |
| Sub-135-185-7B | Sub-132-157-B | Sub-362-4 |
| Sub-135-181-7A | Sub-132-157-D | Sub-362-6 |
| Sub-135-181-7B | Sub-805-A | Sub-362-7 |