

Table 4.17-3. Summary of Adverse Environmental Justice Impacts

Topic	No Build	TSM	At-Grade Emphasis LRT	Underground Emphasis LRT	Locally Preferred Alternative
Transit Service Equity	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Traffic Circulation	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Disproportionate	Not Disproportionate After Mitigation
Parking	Not Disproportionate	Not Disproportionate After Mitigation			
Land Use	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Displacement	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Not Disproportionate After Mitigation
Community, Neighborhood	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Disproportionate	Not Disproportionate After Mitigation
Visual and Aesthetics	Not Disproportionate	Not Disproportionate	Disproportionate	Disproportionate	Not Disproportionate After Mitigation
Air Quality	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Noise and Vibration	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Not Disproportionate After Mitigation
Ecosystems	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Geotechnical	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Water	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Energy	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate

Table 4.17-3. Summary of Adverse Environmental Justice Impacts (continued)

Topic	No Build	TSM	At-Grade Emphasis LRT	Underground Emphasis LRT	Locally Preferred Alternative
Climate Change	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Historic	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate
Parklands, Community Facilities	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Not Disproportionate After Mitigation	Not Disproportionate After Mitigation
Economic, Fiscal	Not Disproportionate	Not Disproportionate	Not Disproportionate After Mitigation	Not Disproportionate After Mitigation	Not Disproportionate
Safety, Security	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate	Not Disproportionate

Source: TAHA, 2010; CDM 2011

4.17.3.1 No Build Alternative

Under the No Build Alternative, transit infrastructure investment would be limited to improvements planned in the 2009 Metro Long Range Transportation Plan (LRTP). By 2035, several new Metro rail lines would exist and bus services would have been reorganized and expanded to connect with these rail lines. The transit network within the study area would otherwise be largely the same as it is now. Compared to the build alternatives, including the LPA, transit accessibility and mobility would not improve.

The No Build Alternative would have effects on traffic congestion, air quality, and energy but these effects would extend across the region and would not disproportionately fall upon the Little Tokyo community or other environmental justice populations. Although some congestion relief would occur under the No Build Alternative with transit improvements planned in the Metro 2009 LRTP, traffic congestion is expected to increase in the study area. Air quality across the region would be adversely affected by increased congestion. Increased Vehicle Miles Traveled (VMT) would result in increased automobile fuel consumption throughout the study area and region. All communities, regardless of minority status or income, would be affected by these potential impacts to traffic congestion, air quality, and energy.

The No Build Alternative would not involve new infrastructure and therefore would not substantially change conditions with respect to parking; land use; visual resources or aesthetics; noise and vibration; water quality; climate change; ecosystems and biological resources; geotechnical/subsurface/seismic/hazardous materials; historic, archaeological, or paleontological resources; parklands and community facilities; economic vitality and employment opportunities; and safety and security. The No Build Alternative would not involve any right-of-way purchases and therefore would not involve any displacements or relocations.

The No Build Alternative would not affect communities and neighborhoods because it would not involve street closures or result in disproportionate adverse impacts pertaining to community cohesion, access, or new physical barriers in the community.

The potential construction and operational impacts discussed above are not disproportionately adverse to environmental justice populations.

4.17.3.1.1 Construction Impacts

No transit project would be constructed as part of the No Build Alternative. No direct, indirect, or cumulative disproportionate adverse impacts to environmental justice populations from construction would occur.

4.17.3.1.2 Operational Impacts

Transit Service Equity

The No Build Alternative would maintain local bus and rail transit in the study area. The No Build Alternative would not increase connectivity to regional mass transit as the build alternatives, including the LPA; therefore, low-income and minority populations in the study area may not have improved access to jobs and services. Traffic congestion throughout the region is anticipated to increase. Like automobile traffic, current transit services would be impacted by this congestion. This effect would occur throughout the study area and the Los Angeles region,

and would not occur disproportionately in Little Tokyo. Therefore, the No Build Alternative would not result in direct, indirect, or cumulative disproportionate adverse impacts to environmental justice populations with respect to transit service equity.

The topics mentioned in this section would either affect the study area equally or there would not be adverse effects, therefore, there would not be disproportionate adverse impacts to environmental justice populations. As such, the No Build Alternative would not have direct, indirect, or cumulative disproportionate adverse impacts to environmental justice populations with respect to these topics.

4.17.3.1.3 NEPA Finding

The No Build Alternative would not result in disproportionate adverse effects to environmental justice populations.

4.17.3.1.4 CEQA Determination

CEQA does not have thresholds of significance specific to environmental justice.

4.17.3.2 TSM Alternative

The TSM Alternative would link the 7th Street/Metro Center Station and Union Station with two new express shuttle bus lines. These buses would run frequently, especially during peak hours. Additionally, like the No Build Alternative, other, unrelated transit projects would be constructed in the region.

Construction under the TSM Alternative would be minimal (new bus stops and signage). Typical construction methods for the minor work needed for bus stop installation would be used. Bus stops would use the existing right-of-way. Extended street closures would be unnecessary; therefore, mobility would not be limited. Construction impacts would not occur disproportionately to environmental justice populations within the study area.

There are already numerous transit lines in the study area and adding two new lines and new bus stops would not substantially change conditions with respect to land use; visual resources or aesthetics; noise and vibration; water quality; climate change; ecosystems and biological resources; geotechnical/subsurface/seismic/hazardous materials; historic, archaeological, or paleontological resources; parklands and community facilities; and economic and fiscal. The TSM Alternative would not involve any displacements or relocations. The potential construction and operational impacts related to remaining topical areas are discussed below.

Transit Service Equity

This section discusses the operational impacts of the TSM Alternative with respect to transit service equity. The TSM Alternative would maintain local bus and rail transit in the study area and add new shuttle bus lines that would serve Little Tokyo and low-income communities in the study area. The TSM alternative would not increase connectivity to regional mass transit as much as the build alternatives, including the LPA; therefore, low-income and minority populations in the study area may not have improved access to jobs and services. Traffic congestion throughout the region is anticipated to increase. Like automobile traffic, current transit services would be impacted by this congestion. This effect would occur throughout the

study area and the Los Angeles region, and would not occur disproportionately in Little Tokyo. Therefore, the TSM Alternative would not result in direct, indirect, or cumulative disproportionate adverse impacts to environmental justice populations with respect to transit service equity.

Traffic Circulation

This section discussed the operational traffic impacts of the TSM Alternative. Traffic circulation impacts are measured by changes to intersection performance. Only two of the eight intersections adversely affected in the AM peak hour and one of the nine intersections adversely impacted in the PM peak hour would be located in Little Tokyo. There may be increased delays for vehicular traffic if new buses are given signal priority, but this would also occur evenly throughout the study area. There would not be a disproportionate adverse impact to environmental justice populations.

Parking

This section addresses the operational impacts of the TSM Alternative with respect to parking. The TSM Alternative would result in the permanent loss of up to 24 on-street parking spaces. Parking spaces would be lost from installation of new bus stops on 2nd Street between Hill Street and Central Avenue. Up to 12 of the lost spaces would be in Little Tokyo where the community has expressed concern over parking loss. Considering half of the lost parking spaces would be located in Little Tokyo, this alternative would result in a disproportionate adverse impact in regards to parking.

Mitigation measures in Section 4.17.4 of the Draft EIS/EIR have been proposed to address potential parking impacts. For example, prior to construction, Metro would conduct a parking needs assessment in Little Tokyo. If demand exceeds supply, Metro would provide replacement parking for spaces lost as a result of the project and would work with Little Tokyo and surrounding communities to show visitors and residents where parking is available. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Community and Neighborhood

This section examines the potential for community and neighborhood impacts from operation of the TSM Alternative. The TSM Alternative would not affect communities and neighborhoods because it would not involve street closures or result in disproportionate adverse impacts pertaining to community cohesion, access, or new physical barriers in the community. Construction of new bus stops and signage would not impact the viability of neighborhoods.

Air Quality

Operation of the TSM Alternative would have effects on traffic congestion and circulation, and air quality but these effects would extend across the region and would not disproportionately fall upon the Little Tokyo community or other environmental justice populations. The NO_x emissions increase would exceed the NEPA significance threshold; however, the alternative would result in substantial reductions in peak daily emissions of CO, SO₂, and PM₁₀. To a limited extent, the enhanced connection across the study area provided by the TSM Alternative would increase transit ridership on connecting rail lines and reduce vehicle trips into the

downtown area. This would provide some modest beneficial effects on traffic congestion and air quality. Adverse air quality impacts associated with additional pollutants emitted by new buses would be spread over the entire region and thus would not result in a disproportionate impact to environmental justice populations.

Safety and Security

This section discusses the operational impacts of the TSM Alternative with respect to safety and security. The TSM Alternative would change street crossing times along the alignment including Little Tokyo and impact safety for elderly pedestrians. However, these effects would be spread throughout the entire study area. In addition, Metro would coordinate with the Los Angeles Department of Transportation (LADOT) regarding the signalization of shuttle service along the alignment including Little Tokyo. Metro would conduct a pedestrian education program in Little Tokyo focusing on transit safety for the new shuttles. Disproportionate adverse impacts to environmental justice populations in regards to safety and security are not anticipated.

Beneficial Effects

The TSM Alternative would have beneficial effects with respect to energy, climate change, economic vitality, and employment opportunities. The increase in transit would reduce VMT and energy consumption. The new buses would run on compressed natural gas which would result in a one percent increase in energy consumption, but overall the TSM Alternative is expected to result in a decrease in energy consumption. Emissions from the new buses would have a regional, not a local, effect on climate change. The TSM Alternative would be consistent with SB 375 because it would increase regional transit capacity and decrease emissions from passenger vehicles. The increase in transit would also increase access to Little Tokyo and provide beneficial effects on economic vitality and employment opportunities.

4.17.3.2.1 NEPA Finding

Construction under the TSM Alternative would be minimal (new bus stops and signage). Typical construction methods for the minor work needed for bus stop installation would be used. Bus stops would use the existing right-of-way. Extended street closures would be unnecessary; therefore, mobility would not be limited. No direct, indirect, or cumulative disproportionate adverse construction-related impacts to environmental justice populations would occur.

Disproportionate impacts to environmental justice populations would occur with respect to parking. Mitigation measures to address these impacts are summarized above and presented in Section 4.17.4 of the Draft EIS/EIR. Disproportionate adverse impacts would not remain after mitigation. The remaining operational impacts mentioned above would either affect the study area equally or have no adverse effects; therefore, there would not be disproportionate impacts to environmental justice populations. As such, after parking mitigation, the TSM Alternative would not have direct, indirect, or cumulative disproportionate adverse impacts.

4.17.3.2.5 CEQA Determination

CEQA does not have thresholds of significance specific to environmental justice.

4.17.3.3 At-Grade Emphasis LRT Alternative

The At-Grade Emphasis LRT Alternative would provide a direct connection from the existing underground 7th Street/Metro Center Station to the Metro Gold Line at Temple and Alameda Streets with three new station locations. This alignment includes a combination of underground and at-grade segments, with 46 percent of the route underground.

In areas designated for cut and cover construction, the top two to three feet of the roadway would be removed and decking would be installed over an approximate three- to four-month period. Construction of the stations would continue underground while traffic operates normally on the decking. This procedure would require temporary off-peak, nighttime or weekend street closures to install the decking.

Construction of the proposed Alameda Street underpass at Temple Street in Little Tokyo would also result in the temporary reduction of roadway capacity for extended periods of time. Adjacent to the Alameda Street underpass, the JANM tour bus loading zone on the west side of the street would be temporarily relocated for the duration of the construction period. In Little Tokyo, disruption to traffic along Alameda and Temple Streets would directly affect cultural institutions such as the JANM, the Go For Broke Monument, the Museum of Contemporary Art (MOCA), and other businesses during the excavation and construction of the Alameda Street underpass and the potential pedestrian bridge. The concentration of construction activities, including large infrastructure elements such as the Alameda Street underpass and pedestrian bridge, combined with the longer duration of construction and potential impacts to numerous cultural institutions occur only in Little Tokyo and are therefore disproportionate when compared to the remainder of the alignment.

The At-Grade Emphasis LRT Alternative would not result in adverse impacts related to transit service equity, land use, displacements and relocation, air quality, noise and vibration, ecosystems, water quality, climate change, and historic resources and therefore would not have disproportionately adverse impacts to environmental justice populations for these disciplines. The construction and operational impacts of additional topical areas are discussed below.

Geotechnical/Subsurface/Seismic/Hazardous Materials

This section discusses the construction impacts of the At-Grade Emphasis LRT Alternative with respect to geotechnical/subsurface/seismic/hazardous materials. Construction impacts related to geotechnical/subsurface/seismic/hazardous materials would also be most likely to occur along the underground portions of the alignment. The underground portions of the alignment are located in the Bunker Hill and Financial District communities and the excavation for the underpass at Temple and Alameda Streets. Underground alignments may be subject to intrusion of subsurface gases or contaminated groundwater, but mitigation measures have been developed to address these impacts. In addition, these potential impacts would occur throughout the underground and excavated portions of the alignment and would not occur disproportionately in the Little Tokyo area.

Traffic Circulation

This section discusses the construction and operational impacts of the At-Grade Emphasis LRT Alternative on traffic circulation. Construction would result in temporary closure of several

streets in the study area. Alameda Street is a major arterial that provides access to Little Tokyo and it could be closed for extended periods of time for construction of the underpass. In addition, 2nd Street would be temporarily closed from Bunker Hill to the western border of Little Tokyo. Traffic would likely divert to 1st Street, which is already congested in Little Tokyo. Impacts to traffic circulation as a result of the intensity and duration of construction, particularly of the Alameda Street underpass at Temple Street, would result in disproportionate adverse impacts to Little Tokyo and the JANM.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. For example, Metro would work with the community to create signage showing detour routes. This would help drivers and pedestrians maintain access to Little Tokyo businesses. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Operation of the At-Grade Emphasis LRT Alternative would have effects on traffic circulation. Traffic circulation impacts are measured by changes to intersection performance. Only four of the 18 intersections adversely affected in the AM peak hour and four of the 26 intersections adversely impacted in the PM peak hour would be located in Little Tokyo. Traffic impacts would occur throughout the entire study area and would not result in disproportionate impacts to environmental justice populations.

Parking

This section describes the construction and operational impacts with respect to parking. Existing on-street parking spaces and loading stalls would be temporarily removed during construction. This would potentially impact parking space and loading areas on the east and west sides of Flower Street, the loading areas on the east side of Main and Los Angeles Streets, and the parking spaces on the south side of Temple Street. The track construction and permanent street configuration along 2nd Street would result in the temporary removal of several parking and loading stalls. Adjacent to the Alameda Street underpass, the JANM tour bus loading zone on the west side of the street would be temporarily relocated for the duration of the construction period.

Although impacts to parking as a result of construction would occur elsewhere along the alignment, impacts to parking in Little Tokyo were of great concern to this environmental justice population. Many other parking options are available elsewhere along the alignment whereas in Little Tokyo parking is perceived as being very limited. Construction would inhibit access to parking lots like the one at the southwest corner of the intersection of Alameda and Temple Streets. Access to this parking lot would be further inhibited once Alameda Street is closed for underpass construction. Inhibiting access to the parking lot and on-street parking would have disproportionate adverse impacts to Little Tokyo and the JANM because of the limited parking options available in Little Tokyo as compared to the remainder of the study area. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. As an example, parking spaces temporarily displaced by construction would be either

temporarily replaced nearby in the Nikkei Center lot or signage would be created indicating locations of nearby parking structures and parking lots. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, the At-Grade Emphasis LRT Alternative would result in the permanent loss of up to 51 on-street parking spaces, 29 on-street loading spaces, and 77 off-street spaces. Of these, 33 off-street spaces, 23 on-street parking spaces, and five on-street loading spaces are in Little Tokyo. Both on- and off-street parking is limited in Little Tokyo. The Little Tokyo community has expressed concern over potential loss of parking.

The removal of parking spaces would adversely impact businesses in the study area. Business revenue would drop if vehicular access to businesses is reduced. New transit would provide increased pedestrian access to businesses.

Transit projects compensate for loss of parking because they reduce vehicle traffic and the demand for parking. This alternative would increase non-automobile, transit access to the study area. Therefore, the proposed At-Grade Emphasis LRT Alternative would provide new access to the area despite potential adverse impacts to parking. Still, disproportionate direct, indirect, and cumulative impacts to environmental justice populations in regards to parking would occur.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.2 of the Draft EIS/EIR. For example, prior to construction, Metro would conduct a parking needs assessment in Little Tokyo. If demand exceeds supply, Metro would provide replacement parking for spaces lost as a result of the project and would work with Little Tokyo and surrounding communities to show visitors and residents where parking is available. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Community and Neighborhoods

This section addresses the construction, operational, and cumulative impacts of the At-Grade Emphasis LRT Alternative with respect to community and neighborhood resources. Construction of the At-Grade Emphasis LRT Alternative would temporarily inhibit, but not eliminate, access to the JANM. Access to the museum would be decreased during construction of the Alameda Street underpass and the potential pedestrian bridge. Loading spaces along Alameda Street would be temporarily displaced, and congestion would increase on 1st Street when 2nd Street is closed. Overall, access to the building would be maintained. Access to the JANM would be inhibited for a longer duration of construction, due to the Alameda Street underpass, as compared to other buildings elsewhere in the study area that would experience a similar impact.

Construction of the At-Grade Emphasis LRT Alternative would result in temporary closure of several streets near Little Tokyo. Although temporary, these closures would inhibit access to businesses and other cultural resources in Little Tokyo like the Go For Broke Monument and MOCA. Impacts to businesses would affect the entire community.

In particular, construction of the Alameda Street underpass and potential pedestrian bridge would result in disproportionate adverse impacts to Little Tokyo and the JANM. A closure of

Alameda Street here could last from 24 to 36 months and access to Little Tokyo from Alameda Street would be limited during this time. Alameda Street is one of the main arterials providing access to Little Tokyo. Due to the impacts to the JANM as well as other cultural resources, inhibited access to businesses, and the duration of construction of the Alameda Street underpass, construction impacts would result in disproportionate adverse impacts to environmental justice populations.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. Mitigation measures for community and neighborhood impacts during construction would include maintenance of alternate access to community facilities, community outreach and early notification regarding street and sidewalk closures and detours, and assistance for businesses to maintain visibility during construction. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, this alternative would not adversely impact the cohesion or identity of Little Tokyo. However, this alternative would displace several on-street parking spaces in Little Tokyo. Increased access to and mobility within the study area would be a beneficial impact to the study area. This increased access through transit would represent a benefit.

The Alameda Street underpass at Temple Street would provide enough frontage road to continue to permit deliveries to the JANM along Alameda Street. Bus loading areas on Alameda Street in front of the museum would be removed. Other bus loading spaces would be available adjacent to the museum on 1st Street. Additional bus loading spaces would be created.

A loss of parking under the At-Grade Emphasis LRT Alternative would result in indirect disproportionate impacts to environmental justice populations because the majority of displaced parking would be in Little Tokyo. Increased transit access in the study area may generate a new benefit compared to the loss of parking, but Little Tokyo would be adversely impacted. Local businesses that rely on paid parking lots and on-street parking would be adversely impacted. The community of Little Tokyo has expressed concern over parking loss and the corresponding effect on businesses. Therefore, indirect disproportionate adverse impacts to the Little Tokyo community would occur.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.2 of the Draft EIS/EIR and are also noted above in the parking discussion. Disproportionate adverse impacts would not remain after mitigation.

Approximately 13 new land development construction projects are anticipated in the study area between now and 2014. An additional 54 new land development construction projects are anticipated between 2014 and 2019. Twelve major renovation projects are anticipated between now and 2014, and eight are expected between 2014 and 2019. Several projects would occur in Little Tokyo or the close vicinity and would remove public paid-parking lots. Thus, parking loss under the At-Grade Emphasis LRT Alternative would contribute cumulatively to parking loss in Little Tokyo. Loss of parking would result in cumulative disproportionate adverse impacts.

Visual and Aesthetic Resources

This section summarizes the construction and operational impacts with respect to visual and aesthetic resources. Most construction activities required for this alternative would occur outside Little Tokyo. However, several large components would occur in and near Little Tokyo, including the Alameda Street underpass and a potential pedestrian bridge. This construction would result in disproportionate adverse visual impacts to Little Tokyo and the JANM because of the scale and duration of the construction. Construction equipment and work areas in this area would be larger than most laydown areas in the alignment. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. The pedestrian bridge would be constructed in a minimally obtrusive manner. However, construction of a bridge structure would be a unique visual disruption in Little Tokyo. Thus, temporary visual impacts from bridge construction may be significant and unavoidable. Having larger construction staging areas in Little Tokyo than in other parts of the study area may also be unavoidable, given the complexity of the LRT infrastructure to be built in Little Tokyo. Disproportionate adverse impacts would remain after mitigation.

Regarding operation, the At-Grade Emphasis LRT Alternative would run underground through the Financial District and at-grade in Bunker Hill, the Civic Center, and on the periphery of Little Tokyo. New visual elements such as pedestrian bridges, catenary poles and overhead wires, and stations would be created in the study area. Two major visual elements of the At-Grade Emphasis LRT Alternative, the Alameda Street underpass at Temple Street and the potential pedestrian bridge at Temple and Alameda Streets, would be located adjacent to Little Tokyo. This would result in a disproportionate adverse visual impact to environmental justice populations.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.2 of the Draft EIS/EIR. As noted above, disproportionate adverse visual impacts of the potential pedestrian overpass at Temple and Alameda Streets would remain after mitigation, and would be unavoidable to environmental justice populations.

Parklands and Other Community Facilities

This section discusses the construction and operational impacts of this alternative to parklands and other community facilities. During construction of the At-Grade Emphasis LRT Alternative, street closures would inhibit access to facilities adjacent to construction sites, such as the Little Tokyo Branch Public Library, MOCA, JANM, and the Go For Broke Monument, in addition to other facilities throughout the study area. Automobile and pedestrian detours would be needed. Annual festivals in the downtown area would also be temporarily affected. Emergency service response times would also be affected by the temporary street closures and detours. Due to the number of community facilities located in Little Tokyo potentially impacted by construction, as well as the intensity and duration of construction in Little Tokyo, construction impacts would be adverse and disproportionate.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. For example, Metro would maintain adequate access to businesses and community

facilities near the alignment and would coordinate with LADOT to create signage that would indicate new ways to access businesses affected by construction. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, the At-Grade Emphasis LRT Alternative would eliminate uncontrolled, mid-block left turns. This would impede access to community facilities on 2nd Street, Los Angeles Street, and Main Street. Disproportionate adverse impacts to community facilities would occur, but the increased access provided by the LRT would represent a benefit.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.2 of the Draft EIS/EIR. For example, Metro would coordinate with LADOT to create signage that would indicate new ways to access businesses affected by new turning restrictions necessitated by the At-Grade Emphasis LRT Alternative. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Economic and Fiscal

This section describes the economic and fiscal impacts resulting from construction. Construction of the At-Grade Emphasis LRT Alternative would result in temporary closure of several streets in the study area. Due to the duration of construction, construction of the Alameda Street underpass would result in disproportionate adverse impacts to Little Tokyo and the JANM. A closure of Alameda Street here could last from 24 to 36 months and access to Little Tokyo from Alameda Street would be limited during this time. Alameda Street is one of the main arterials providing access to Little Tokyo.

2nd Street would be closed for construction from Bunker Hill to the western border of Little Tokyo. Traffic would likely divert to 1st Street, which is already heavily congested in Little Tokyo. Construction impacts would adversely affect the economic viability of some businesses in Little Tokyo. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts.

Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR. For example, Metro would provide measures to assist business owners significantly impacted by construction (temporary parking, marketing programs, and other measures as appropriate), and replacement parking locations. Disproportionate adverse impacts would not remain after mitigation.

Safety and Security

This section discusses the operational impacts to safety and security. Operation of the At-Grade Emphasis LRT Alternative would result in adverse impacts to pedestrian safety and security. This alternative would increase potential conflicts between pedestrians or vehicles and trains. Near Little Tokyo, particularly as the alignment crosses Alameda Street at Temple Street, there would be potential pedestrian train conflicts involving the elderly population. These safety and security issues are applicable to light rail regardless of the socioeconomic or ethnic status of the surrounding community.

In the Little Tokyo area, Metro would potentially build a pedestrian bridge, across Alameda Street, near the Little Tokyo/Arts District Station. This bridge would separate pedestrian movements from LRT and motorized vehicle movements. If the community opts against construction of the pedestrian bridge, Metro would use other urban design methods to enhance pedestrian safety. This would include creating pedestrian queuing and refuge areas around proposed stations. Adding wide crosswalks would also enhance pedestrian mobility and safety. No disproportionate safety and security impacts to environmental justice populations would occur.

Beneficial Effects

The At-Grade Emphasis LRT Alternative would have beneficial effects with respect to transit service equity, air quality, energy, climate change, economic vitality, and employment opportunities. While this alternative would not create a new station in Little Tokyo, it would connect to the Metro Gold Line, which currently serves Little Tokyo and it would expand the number of destinations reachable from the Little Tokyo/Arts District Station without transfers. This alternative would have direct, beneficial impacts to transit equity. The increase in transit would reduce VMT providing beneficial effects on air quality and energy consumption. The At-Grade Emphasis LRT Alternative would be consistent with SB 375 because it would increase regional transit capacity and decrease emissions from passenger vehicles. The increase in transit would also increase access to Little Tokyo and provide beneficial effects on economic vitality and employment opportunities.

4.17.3.3.1 NEPA Finding

From an environmental justice standpoint, the greatest impacts would occur during construction. Disproportionate adverse construction impacts to environmental justice populations would occur with respect to traffic circulation; parking; community and neighborhoods; visual and aesthetic resources; community facilities; and economic vitality. Mitigation measures to address these impacts are presented in Section 4.17.4.3.1 of the Draft EIS/EIR and summarized above.

Disproportionate operational impacts to environmental justice populations would occur with respect to parking; community and neighborhoods; visual and aesthetic resources; and community facilities. Mitigation measures to address these impacts are presented in Section 4.17.4.3.2 of the Draft EIS/EIR and summarized above.

The following adverse impacts of the At-Grade Emphasis LRT Alternative would weigh disproportionately on environmental justice populations under this alternative:

- Parking loss in Little Tokyo
- Decreased access to public facilities during operations
- Construction-related, decreased traffic circulation, parking, access to community facilities, and changed visual resources

- Construction-related, decreased economic and fiscal viability
- Visual impacts of the potential pedestrian overpass at Temple and Alameda Streets

Disproportionate adverse impacts to environmental justice populations would not remain after mitigation, except the visual impacts of the potential pedestrian overpass at Temple and Alameda Streets, which would be unavoidable.

4.17.3.3.2 CEQA Determination

CEQA does not have thresholds of significance specific to environmental justice.

4.17.3.4 Underground Emphasis LRT Alternative

The Underground Emphasis LRT Alternative would connect 7th Street/Metro Center Station and the Metro Gold Line with a new light rail connection that would be mostly underground. This alternative would not reduce existing bus service in the study area.

The cut and cover construction would be similar to that described for the At-Grade Emphasis LRT Alternative. Remaining portions of the underground portion of the alignment would be constructed using TBM. The installation of TBMs would occur either in the Little Tokyo or Bunker Hill areas. The Alameda Street underpass would be located at Alameda and 1st Streets under the Underground Emphasis LRT Alternative. Construction of the Underground Emphasis LRT Alternative would result in temporary closure of several streets in the study area. To minimize conflicts between rail, vehicular, and pedestrian traffic, and to minimize delays at the intersection of Temple and Alameda Streets, a vehicular underpass and a pedestrian overpass are proposed along Alameda Street to route through traffic beneath the rail tracks and Temple Street traffic.

Unlike other street closures within the study area, closure of Alameda Street would be long-term. Alameda Street is a major arterial providing access to Little Tokyo. In addition, 2nd Street would be temporarily closed between Alameda Street and Central Avenue. Traffic would likely divert to 1st Street which is already congested in Little Tokyo. In Little Tokyo, disruption to traffic along Alameda and Temple Streets would directly affect cultural institutions such as the JANM, the Go For Broke Monument, the MOCA, and other businesses during the excavation and construction of the Alameda Street underpass and the potential pedestrian bridge. The concentration of construction activities, including large infrastructure elements such as the Alameda Street underpass and pedestrian bridge and TBM insertion site, combined with the longer duration of construction and potential impacts to numerous cultural institutions would occur only in Little Tokyo and are therefore disproportionate when compared to the remainder of the alignment.

Many construction-related effects would occur equally along the entire alignment and would not disproportionately impact Little Tokyo. These effects include transit service equity, air quality, climate change, noise and vibration, and safety and security. There would be no construction-related effects on historic buildings in Little Tokyo since design measures would be implemented to protect historic resources. Construction would require the use of some parcels in Little Tokyo, but these temporary uses would not be incompatible with surrounding land uses and the effects would not be disproportionate.

Operation of the Underground Emphasis LRT Alternative within the Little Tokyo area would not result in impacts with respect to land use; water quality; ecosystems and biological resources; geotechnical/subsurface/seismic/hazardous materials; parklands and other community facilities; and historic, archaeological, or paleontological resources. Underground alignments may be subject to intrusion of subsurface gases or contaminated groundwater, but mitigation measures have been developed to address these impacts. In addition, these potential impacts would occur throughout the entire alignment and would not occur disproportionately in the Little Tokyo area.

Adverse construction-related impacts from the Underground Emphasis LRT Alternative would occur with respect to geotechnical/subsurface/seismic/hazardous materials; water quality; and archaeological and paleontological resources. Underground construction may encounter contaminated groundwater or affect archaeological, paleontological, and other geologic resources. Since the entire alignment would be underground, except for a short segment in Little Tokyo, no disproportionate adverse construction impacts to environmental justice populations would occur.

The construction and operational impacts of remaining topical areas are discussed below.

Traffic Circulation

This section discusses construction and operational impacts to traffic circulation. Construction of the Underground Emphasis LRT Alternative would result in temporary closure of several streets in the study area. In particular, construction of the Alameda Street underpass at 1st Street would result in disproportionate adverse impacts to Little Tokyo and the JANM because of the intensity and duration of construction. Unlike other street closures, closure of Alameda Street would be long-term, unless cut and cover methods are used to construct the underpass. Alameda Street is a major arterial providing access to Little Tokyo. In addition, 2nd Street would be temporarily closed between Alameda Street and Central Avenue. Traffic would likely divert to 1st Street, which is already congested in Little Tokyo. Although construction impacts would be short-term and intermittent, they would result in disproportionate adverse impacts to environmental justice populations.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, traffic at a few intersections would be adversely impacted by operations of the Underground Emphasis LRT Alternative. In the AM peak hours, two of the three intersections that would experience new traffic delays are located in the vicinity of Little Tokyo. In the PM peak hours, four of the seven intersections that would experience new traffic delays would be located in and around Little Tokyo. Traffic impacts are anticipated throughout the study area, but the majority would affect the Little Tokyo area. Therefore, disproportionate adverse impacts to environmental justice populations with respect to traffic congestion would occur.

Mitigation measures would address potential impacts to intersection operations by converting or modifying current lane designations, optimizing the signal phasing splits, or providing limited widening if right-of-way is available. Mitigation measures to address these impacts are presented in Section 4.17.4.4.2 of the Draft EIS/EIR. Disproportionate adverse traffic circulation impacts near 1st and Alameda Streets to environmental justice populations would remain after mitigation.

Parking

This section describes the construction, operational, and cumulative impacts to parking. Construction of the Underground Emphasis LRT Alternative would result in temporary displacement of on-street parking. Although on-street parking would be affected elsewhere along the alignment, parking in Little Tokyo is limited in comparison to the varied parking options in other areas of the alignment. Construction would inhibit access to parking lots like the one at the southeast corner of the intersection of Alameda and 1st Streets. Access to this parking lot would be further inhibited once Alameda Street is closed for underpass construction. Inhibiting access to the parking lot and on-street parking would have disproportionate adverse impacts to Little Tokyo and the JANM as compared to elsewhere along the alignment. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, the Underground Emphasis LRT Alternative would permanently remove 148 to 281 off-street parking spaces, 26 on-street parking spaces, and three on-street loading spaces. Of these spaces, 139 (49 to 94 percent of the total parking loss) off-street spaces, 13 on-street parking spaces, and the three on-street loading spaces are located in Little Tokyo. Parking opportunities in Little Tokyo are already limited. The Little Tokyo community has expressed the importance of parking to their community. Increased transit use would constitute a benefit.

Removal of off-street parking spaces would indirectly impact businesses in Little Tokyo. Business revenue would decrease if vehicular access to businesses is reduced. New transit would provide increased pedestrian access to businesses and represent a benefit.

Transit projects compensate for loss of parking because they reduce vehicle traffic and the demand for parking. This alternative would increase non-automobile, transit access to the study area. Therefore, this alternative would yield a benefit. Still, disproportionate direct, indirect, and cumulative impacts to parking would occur because of the quantity of spaces affected in Little Tokyo compared to the remainder of the study area.

The same mitigation measures identified for operational impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section

4.17.4.4.2 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Displacement and Relocation

This section describes the displacements and relocation impacts with respect to construction and operation of the Underground Emphasis LRT Alternative. This alternative would require 18 partial takes, eight full takes, three temporary construction easements, and four permanent underground easements. This alternative would require these properties for traction power substations (TPSS) locations, construction staging, right-of-way, below grade tunneling, and stations. In Little Tokyo, seven full takes would be required. This is a greater impact due to displacement than would be experienced in the rest of the study area. Thus, there would be a disproportionate adverse impact to environmental justice populations associated with displacement.

Displacement of businesses and loss of the commercial space in Little Tokyo would have indirect, disproportionate, adverse impacts to the community. Little Tokyo is a redevelopment area. The Community Redevelopment Agency of the City of Los Angeles (CRA/LA) focuses on redevelopment of commercial areas for economic development. The reduction in physical commercial space would reduce the availability of area where additional development could occur. Therefore, potential for increased economic development in a primarily minority community would be reduced. However, this effect could be reversed by future growth encouraged by the new light rail service.

Mitigation measures to address these impacts are presented in Section 4.17.4.4.2 of the Draft EIS/EIR. As an example, Metro would comply with the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the USDOT. All real property acquired by Metro would be appraised to determine its fair market value. Metro would provide affected property holders just compensation not less than the approved appraisal value. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Community and Neighborhoods

This section describes the construction, operational, and cumulative impacts to community and neighborhoods. Construction of the Underground Emphasis LRT Alternative would temporarily inhibit access to the JANM. Loading spaces along Alameda Street would be temporarily displaced, and congestion would increase on 1st Street when 2nd Street is closed. School bus loading zones along 1st Street would be affected by construction-related traffic. While access to the museum would be maintained, access would be decreased during construction of the Alameda Street underpass and potential pedestrian bridge. Similar access issues to cultural resources would not occur elsewhere along the alignment.

Construction of the Underground Emphasis LRT Alternative would result in temporary closure of several streets near Little Tokyo. Although temporary, these closures would inhibit access to businesses in Little Tokyo. Impacts to businesses would affect the entire community. In particular, construction of the Alameda Street underpass would result in disproportionate adverse impacts to Little Tokyo and the JANM because of the scale and duration of construction.

A closure of Alameda Street here could last from 24 to 36 months, and access to Little Tokyo from Alameda Street would be limited during this time. Alameda Street is one of the main arterials providing access to Little Tokyo. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Construction of the Underground Emphasis LRT Alternative would displace approximately 13 businesses, most of which are in Little Tokyo. Displacement of properties would reduce the stock of commercial space in Little Tokyo. However, transit-oriented development could occur on properties where businesses were displaced. This development would generate additional commercial space and jobs. Since the number of displacements occurs disproportionately in Little Tokyo, compared to elsewhere in the study area, an adverse disproportionate impact to environmental justice populations would occur.

The loss of parking under this alternative would result in indirect disproportionate effects by decreasing business viability. The Little Tokyo community has expressed concern that a loss of parking would hurt businesses crucial to the area's cultural identity. This same concern was not heard from other community stakeholders elsewhere in the study area. The Underground Emphasis LRT Alternative would yield a benefit by increasing transit access. However, local businesses that rely on paid parking lots and on-street parking would be adversely impacted. Indirect, disproportionate, adverse impacts to environmental justice populations would occur due to the loss of parking.

Approximately 13 new construction projects are anticipated in the study area by 2014. Fifty-four new construction projects are planned between 2014 and 2019. Twelve major renovation projects are anticipated by 2014, and eight are anticipated between 2014 and 2019. Several of these projects would occur in Little Tokyo or its close vicinity and would remove public paid-parking lots. As such, parking loss that would occur under the Underground Emphasis LRT Alternative would contribute cumulatively to parking loss in Little Tokyo. Loss of parking would have cumulative, disproportionate, adverse impacts to environmental justice populations.

The Little Tokyo community has also indicated that 1st and Alameda is a key intersection in the neighborhood, and that the proposed underpass and at-grade junction would affect community cohesion. Also, the permanent conversion of the commercial block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street would pose a permanent community impact. These impacts would be disproportionate and adverse to environmental justice populations.

Mitigation measures to address these impacts are presented in Section 4.17.4.4.2 of the Draft EIS/EIR. Regarding parking loss, refer to mitigation measures identified for the At-Grade Emphasis LRT Alternative as noted above. This alternative could result in long-term displacement of commercial space. Displaced commercial space in Little Tokyo could be

replaced with high quality commercial development opportunities consistent with Little Tokyo's community identity. This could include a development above the portal near 2nd Street and Central Avenue, or a possible future development at the Nikkei Center. New development would create at least as many jobs as had been displaced. Full mitigation of the community cohesion impacts of the proposed underpass and at-grade rail junction would not be possible. The new light rail service may encourage new growth that would minimize the permanent conversion of the block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street to transit facility use, but it would not necessarily occur at this central location. After mitigation, disproportionately adverse community cohesion impacts of the proposed underpass and at-grade junction at 1st and Alameda Streets, and the permanent conversion of the block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street to transit facility use would remain.

Visual and Aesthetic Resources

This section describes the construction and operational visual and aesthetic impacts. Several large components of construction would occur in and near Little Tokyo including the Alameda Street underpass and potential pedestrian bridge. This construction would result in disproportionate adverse impacts to Little Tokyo and the JANM because of the concentration and duration of construction. Construction equipment and work areas in this area would be larger than most laydown areas in the alignment. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts to environmental justice populations.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would remain after mitigation.

Regarding operation, the majority of the Underground Emphasis LRT Alternative alignment would run below ground. This would minimize impacts to visual resources. Surface elements of the alignment would include station entrances, portals, and potential pedestrian bridges. A portal and potential pedestrian bridge would be located in Little Tokyo. Portal construction in Little Tokyo would remove the majority of structures in the block bounded by Alameda Street, 1st Street, 2nd Street, and Central Avenue. Depending on its final design, the pedestrian bridge could adversely impact the aesthetic character of the area. Disproportionate, adverse impacts to environmental justice populations in regards to visual resources would occur.

To minimize impacts associated with visual resources in Little Tokyo, Metro would design a portal trench. The portal trench would minimize the amount of track and tunnel visible to pedestrians, residences across Alameda Street and Central Avenue, and visitors to the JANM. Metro could build a pedestrian bridge under this alternative. The pedestrian bridge would be constructed to be minimally obtrusive. However, a bridge structure would be a unique visual element in Little Tokyo. Thus, visual impacts from the bridge may be significant and unavoidable. Mitigation measures to address these impacts are presented in Section 4.17.4.4.2 of the Draft EIS/EIR. After mitigation, disproportionately adverse visual and aesthetic impacts to

environmental justice populations from the potential pedestrian overpass at 1st and Alameda Streets, which may be perceived as adverse depending upon design, would remain.

Noise and Vibration

This section describes the operational noise impacts. The operation of the Underground Emphasis LRT Alternative would have moderate noise impacts on one sensitive receptor, Savoy, which is a condominium complex in Little Tokyo. No potential noise impacts were identified elsewhere in the study area. This would result in a disproportionate adverse operational noise impact. No direct, indirect, or cumulative disproportionate adverse impacts to environmental justice populations associated with operational vibration are anticipated.

The noise impact would be due to track switches near the intersection of 1st and Alameda Streets. However, a spring-rail or movable frog switch could be used at this location to reduce potential noise by covering the gap in the central part of the switch. Mitigation measures to address these impacts are presented in Section 4.17.4.4.2 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Parklands and Other Community Facilities

This section describes the construction impacts related to parklands and other community facilities. During construction of the Underground Emphasis LRT Alternative, street closures would inhibit access to facilities adjacent to construction sites, such as the Little Tokyo Branch Public Library and JANM, in addition to other facilities throughout the study area. Automobile and pedestrian detours would be needed. Annual festivals in the downtown area would also be temporarily affected. Emergency service response times would also be affected by the temporary street closures and detours. These construction activities would affect the entire proposed alignment. Cut and cover construction in the Financial District and Bunker Hill areas would require surface excavation along the entire LRT route. However, TBM construction would be used in Little Tokyo on 2nd Street; therefore, access modifications on 2nd Street would be less pronounced and limited to staging areas.

Construction of the proposed 2nd Street station - Los Angeles Street Option would impede access to the Little Tokyo Branch Public Library. Overall, access to the library branch would be maintained. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts to environmental justice populations as the only occurrence of this nature would be in Little Tokyo.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Economic and Fiscal

This section describes the construction and operational impacts related to economic and fiscal resources. Construction of the Underground Emphasis LRT Alternative would result in temporary, intermittent closures of several streets in the study area. Construction of the Alameda Street underpass would result in disproportionate adverse impacts to Little Tokyo and the JANM. A closure of Alameda Street here could last from 24 to 36 months, and access to Little Tokyo from Alameda Street would be limited during this time. Alameda Street is one of the main arterials providing access to Little Tokyo. Construction impacts would adversely affect the economic viability of some businesses in Little Tokyo. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts to environmental justice populations.

The same mitigation measures identified for construction impacts under the At-Grade Emphasis LRT Alternative described above would also apply to the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are also presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Regarding operation, businesses on the block bounded by Central Avenue, 1st Street, 2nd Street, and Alameda Street would be removed, though the ones directly facing Central Avenue (with the possible exception of Starbucks and Café Cuba) may be able to remain. This would reduce the amount of commercial space and jobs in Little Tokyo. However, Little Tokyo is a redevelopment area. As such, there are economic incentives for commercial redevelopment. No direct, indirect, or cumulative disproportionate, adverse impacts to environmental justice populations in regards to economic vitality or employment opportunities would occur.

Safety and Security

This section discusses the operational impacts to safety and security. The Underground Emphasis LRT Alternative would result in adverse impacts to pedestrian safety and security. A conflict would exist between pedestrians or vehicles and trains. The at-grade portion of the alignment under this alternative would run through Little Tokyo. A portal would be constructed adjacent to residences, museums, and commercial uses with high pedestrian and vehicle traffic. Residents around the portal would see increased pedestrian and vehicle activity around the egress/ingress area of the proposed alignment.

Underground stations could raise security concerns, particularly at night. These safety and security issues are applicable to light rail in general. They exist regardless of the socioeconomic or ethnic status of the surrounding community and thus would not disproportionately impact environmental justice populations.

In the Little Tokyo area, Metro would potentially build a pedestrian bridge, across Alameda Street, near the Little Tokyo/Arts District Station. This bridge would separate pedestrian movements from LRT and motorized vehicle movements. If the community opts against construction of the pedestrian bridge, Metro would use other urban design methods to enhance pedestrian safety. This would include creating pedestrian queuing and refuge areas around proposed stations. Adding wide crosswalks would also enhance pedestrian mobility and safety.

No disproportionate safety and security impacts to environmental justice populations would occur.

Beneficial Effects

Operation of the Underground Emphasis LRT Alternative would have beneficial effects with respect to transit service equity and economic vitality and employment opportunities. The alternative would increase transit mobility throughout the region by reducing the number of transfers on the rail system and introducing new stations in the downtown area. A potential new station at 2nd/Los Angeles Streets would benefit businesses in Little Tokyo. Another option would be to place the station at 2nd/Broadway instead, which is two blocks farther from Little Tokyo. The Underground Emphasis LRT Alternative would improve transit service in Little Tokyo and increase this area's connectivity to the region. This alternative would have direct, beneficial impacts to transit equity.

The Underground Emphasis LRT Alternative would also have beneficial effects with respect to air quality, energy, and climate change. The increase in transit would reduce VMT providing beneficial effects on air quality and energy consumption. The Underground Emphasis LRT Alternative would be consistent with SB 375 because it would increase regional transit capacity and decrease emissions from passenger vehicles.

4.17.3.4.1 NEPA Finding

Potential construction impacts to traffic circulation, parking, community and neighborhood, visual and aesthetic resources, parklands and other community facilities, and economic and fiscal were evaluated. Disproportionately adverse impacts to environmental justice populations would occur. Mitigation measures to address these impacts are summarized above and presented in Section 4.17.4.4.1 of the Draft EIS/EIR. Disproportionate adverse construction impacts to environmental justice populations would not remain after mitigation.

The sections above describe the adverse impacts that would take place during operation of the Underground Emphasis LRT Alternative. Mitigation measures to address these impacts are summarized above and presented in Section 4.17.4.4.2 of the Draft EIS/EIR. After mitigation, disproportionate impacts to environmental justice populations would remain to traffic circulation, community and neighborhood, and visual and aesthetics.

The following adverse impacts of the Underground Emphasis LRT Alternative would weigh disproportionately on relevant communities under this alternative:

- Parking loss and permanently increased traffic congestion in Little Tokyo
- Decreased access to public facilities during operations
- Construction-related, decreased traffic circulation, parking, access to community facilities, and changed visual resources

- Community cohesion impacts of the proposed underpass and at-grade junction at 1st and Alameda Streets, and the permanent conversion of the block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street to transit facility use
- Visual and aesthetic impacts of the potential pedestrian overpass at 1st and Alameda Streets, which may be perceived as adverse depending upon design
- Construction-related, decreased economic and fiscal viability
- Displacement of businesses in Little Tokyo
- Operational noise at the Savoy residential building in Little Tokyo

Disproportionate adverse impacts to environmental justice populations would not remain after mitigation, except:

- Visual and aesthetic impacts of the potential pedestrian overpass at 1st and Alameda Streets, which may be perceived as adverse depending upon design
- Traffic circulation impacts near 1st and Alameda Streets
- Community cohesion impacts of the proposed underpass and at-grade junction at 1st and Alameda Streets, and the permanent conversion of the block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street to transit facility use.

4.17.3.4.1 CEQA Determination

CEQA does not have thresholds of significance specific to environmental justice.

4.17.3.5 Locally Preferred Alternative

The Metro Board of Directors designated the Fully Underground LRT Alternative as the LPA on October 28, 2010, and further refinements have been made in close coordination with the LTWG to reduce impacts in Little Tokyo. The LTWG expressed support for the refinements during meetings held in February 2011.

The LPA was developed in collaboration with the Little Tokyo community to address concerns related to the other build alternatives. It became feasible after successful collaboration with the developers of the proposed Nikkei Center project and the Los Angeles Homba Hongwanji Temple. The LPA would connect 7th Street/Metro Center Station and the Metro Gold Line with a new light rail connection that would be entirely underground. The alignment would follow Flower and 2nd Streets, and rise to connect to the existing Metro Gold Line tracks in the vicinity of 1st and Alameda Streets. This alternative would not reduce existing bus service in the study area.

During the preparation of the Draft EIS/EIR, community members viewed the Regional Connector as one more attempt to encroach into Little Tokyo, further reducing its size and negatively impacting the community's cultural identity and economic viability. This unease

peaked when the Little Tokyo community coalesced against both of the build alternatives initially proposed for study in the Draft EIS/EIR, the At-Grade Emphasis LRT and Underground Emphasis LRT Alternatives, at several Metro Board and community meetings in the summer and fall of 2009. The opposition was based on the impacts both of these alternatives would have on the community during and after construction.

The Little Tokyo community has also indicated that 1st and Alameda Streets is a key intersection in the neighborhood, and expressed concern that the previously proposed underpass and at-grade junction for the Underground Emphasis LRT Alternative would affect community cohesion and character. Also, the permanent conversion of the commercial block bounded by 1st Street, Central Avenue, 2nd Street, and Alameda Street would pose a permanent community impact and negatively affect community character. The LPA addressed these concerns by eliminating the proposed underpass and at-grade junction, and replacing the portal on the commercial block with an underground station that would allow a future development to be built on top. The future development could improve community character by integrating the proposed station into the neighborhood in a way that reflects the area's unique cultural identity. Refinements to the LPA since publication of the Draft EIS/EIR have reduced the amount of property on the block to be acquired.

The community also expressed concern over the Underground Emphasis LRT Alternative's permanent conversion of the block bounded by 2nd Street, Central Avenue, 1st Street, and Alameda Street to transit infrastructure use (a portal). The LPA addresses this concern by placing a station on the block instead of a portal, and future development above the station would be possible. The portal structures would instead be built east of Alameda Street. Refinements made during preliminary engineering have further reduced the need for property acquisition on the block bounded by 2nd Street, Central Avenue, 1st Street, and Alameda Street. As a result, most businesses on the block would not need to be acquired further reducing impacts to Little Tokyo.

At the same time, Metro recognized that the potential impacts of the Regional Connector on this important historical, cultural, and ethnic community would raise environmental justice concerns and proactively engaged the Little Tokyo community in a focused and collaborative dialogue to address their concerns. This outreach culminated in the formation of the LTWG, comprised of Metro staff and leaders of the Little Tokyo Community Council (LTCC), which represents over 100 business and community organizations. Additionally, at the community's request, Metro provided funding for a consultant to assist the community in understanding and interpreting the environmental analysis in order to develop effective mitigation that would be meaningful to the community. More information regarding the extensive public outreach efforts of this project is contained in Chapter 7, Public and Agency Outreach.

The Little Tokyo community supports the LPA that emerged from this intensive outreach. Appendix EE, Environmental Justice Technical Memorandum, includes a letter from the LTCC expressing support for this alternative. Included in Section 4.17.4.2 below are some of the potential mitigation measures suggested by the LTWG.

Refinements made to the LPA since publication of the Draft EIS/EIR include relocation of the proposed tunnel boring machine insertion site from 2nd Street in Little Tokyo to the Mangrove property. This would provide ample space for staging in an area that is less disruptive to the Little Tokyo community and businesses, and would allow haul trucks to access freeways using industrial side streets instead of commercial business streets. This relocation eliminates the need for cut and cover construction on 2nd Street in Little Tokyo, reduces the number of existing businesses that would be displaced, and reduces the amount of truck trips and overall construction activity within the Little Tokyo community. A portion of cut and cover construction on Flower Street between 3rd and 4th Streets could also be eliminated, thereby reducing overall construction-related disruption in the downtown area and allowing key freeway access routes for all downtown communities to operate with fewer impacts.

An alternate insertion site was considered at the 2nd/Hope Street station location, but this would have resulted in the tunnel boring machine removal site being located within the 1st/Central Avenue station area, closer to the heart of the Little Tokyo community than the Mangrove property. In this scenario, truck haul routes to and from the removal site would not be able to avoid passing through parts of the Little Tokyo community. The duration of construction activity may also be greater due to the suboptimal staging conditions (steep slope, small area) at the 2nd/Hope Street station site. More staging in the surrounding streets would be required, and the network of one-way streets in the area would require circuitous haul routes through several highly-developed blocks of the Financial District. Insertion at 2nd/Hope Street station would also result in greater disruption overall in the downtown area, which would also affect access to and from Little Tokyo.

The refinements to the LPA would reduce construction impacts in Little Tokyo; however, there would still be impacts as a result of construction activities. The insertion of the TBM at the Mangrove property is an improvement; however, truck trips and the concentration and duration of construction activity around the Mangrove property would only occur in Little Tokyo and is therefore disproportionate compared to other construction activity elsewhere in the study area. In addition, construction of the underground junction is specific to Little Tokyo. No other underground junctions would be constructed within the study area.

The LPA would have fewer potential disproportionate impacts to environmental justice populations than the other build alternatives for both construction and operation. Refinements to the LPA since publication of the Draft EIS/EIR were made to reduce impacts in Little Tokyo. Less cut and cover construction and fewer business acquisitions would be needed, and TBM staging would be in a less impactful location on the edge of Little Tokyo. By reducing the need for road and sidewalk closures, property acquisitions, job displacement, and overall neighborhood disruption during construction, the refinements have helped reduce, but not eliminate, potential impacts in Little Tokyo environmental justice study area.

Many construction-related effects would occur equally along the entire alignment and would not disproportionately impact Little Tokyo. These effects include transit service equity, air quality, and safety and security. There would be no disproportionate adverse construction-related effects on historic buildings since design measures would be implemented to protect historic resources and mitigate construction-related impacts to them. Construction would require the use of some

parcels in Little Tokyo, but these temporary uses would not be incompatible with surrounding land uses and the effects would not be disproportionate.

Operation of the LPA within the Little Tokyo area would not result in impacts with respect to land use; water quality; ecosystems and biological resources; climate change; geotechnical/subsurface/seismic/hazardous materials; parklands and other community facilities; noise and vibration; and historic, archaeological, or paleontological resources. These topics would either affect the study area equally or would have no adverse effects; therefore, there would not be disproportionate adverse impacts to environmental justice populations related to these topics.

Adverse construction-related impacts from the LPA would occur with respect to geotechnical/subsurface/seismic/hazardous materials; water quality; and archaeological and paleontological resources if they were encountered. Underground construction could encounter contaminated groundwater or affect archaeological, paleontological, and other geologic resources. Since the entire alignment would be underground, except for a short segment around the portals in Little Tokyo, no disproportionate adverse construction impacts to environmental justice populations would occur.

Traffic Circulation

This section describes the construction and operational impacts to traffic circulation. Construction of the underground junction beneath 1st and Alameda Streets would result in disproportionate adverse impacts to Little Tokyo and the JANM because of the concentration and duration of construction activity associated with the underground junction. This is the only location within the study area that an underground junction would be constructed. Unlike the Underground Emphasis LRT Alternative, the LPA would not require long-term continuous closure of the 1st and Alameda Streets intersection, since the excavation at this area could be conducted using the cut and cover method. Although construction impacts would be short-term and intermittent, they would result in disproportionate adverse impacts to environmental justice populations.

Mitigation measures to address these impacts are presented in Section 4.17.4.3 of this Final EIS/EIR and are summarized below. Mitigation measures include a traffic management and construction mitigation plan developed in coordination with the community to minimize disruption and limit construction activities during special events, provide accessible detours, and provide early notification of traffic disruption (See CN-2 and CN-3). Disproportionate adverse construction impacts to environmental justice populations would not remain after mitigation.

Regarding operation, under the LPA, the intersection of Alameda and 1st Streets would remain unchanged after construction. The proposed alignment would be separated from automobile and pedestrian traffic. Trains would not have to cross 1st Street when traveling to or from the Little Tokyo/Arts District Station since they would be running underground. The traffic signal operation at this intersection would be improved.

Under this alternative, traffic congestion would be reduced in Little Tokyo. Reduced congestion would benefit elderly and transit-dependent populations. Beneficial impacts to traffic congestion are anticipated in Little Tokyo. All adverse traffic congestion impacts of the LPA during operations would occur in the Financial District, a non-environmental justice community, and would not affect circulation in Little Tokyo.

Parking

This section describes the construction, operational, and cumulative impacts to parking. Construction of the LPA would temporarily displace on-street parking and inhibit use of some off-street parking lots. Portions of the Mangrove property parking lot and the entire lot around Señor Fish, Weiland Brewery, and The Spice Table would be closed to accommodate construction activities. Inhibiting access to the parking lot and on-street parking would have disproportionate adverse impacts to Little Tokyo and the JANM. Nowhere else within the study area would have as much off-street parking or a community resource, similar to the JANM, affected. Construction impacts would be short-term and intermittent, but they would result in disproportionate, potentially adverse impacts to environmental justice populations.

These impacts are addressed through mitigation measures included in the Environmental Justice section of the MMRP for the LPA (Chapter 8) and Section 4.17.4.3 below. For example, any unmet demand for parking spaces eliminated in Little Tokyo during construction shall be temporarily replaced within one block of the land uses that rely on those spaces, or through a combination of other measures (EJ-2). Disproportionate adverse construction impacts to environmental justice populations would not remain after mitigation.

Regarding operation, the LPA would permanently remove approximately 270 off-street parking spaces and 13 on-street parking spaces. Of these spaces, up to 130 off-street spaces and no on-street parking spaces are located in Little Tokyo. Parking opportunities in Little Tokyo are already limited. The Little Tokyo community has expressed the importance of parking to their community. This alternative would yield an access benefit compared to the loss of parking due to increased transit use. Overall, less parking would be removed in Little Tokyo for the LPA than for the Underground Emphasis LRT Alternative. However, approximately half of the off-street parking that would be removed is in Little Tokyo and is therefore a disproportionate impact when compared to the remainder of the study area.

Removal of off-street parking spaces would indirectly impact businesses in Little Tokyo. Business revenue would decrease if vehicular access to businesses is reduced. New transit would provide increased pedestrian access to businesses and may yield benefits from decreased vehicular access. This alternative would increase non-automobile, transit access to the study area. Still, disproportionate direct, indirect, and cumulative impacts to environmental justice populations in regards to parking would occur.

Mitigation measures to address these impacts are presented in Section 4.17.4.3 of this Final EIS/EIR and briefly summarized below. For example, Metro shall provide two acres of land on the Mangrove property (northeast of 1st and Alameda Streets) for the purposes of providing alternative parking services during construction, which could include satellite parking served by shuttle buses, valet parking from vehicle pick-up/drop-off in the central business areas of Little

Tokyo, and standard self-parking (EJ-3). Disproportionate parking impacts associated with operation of the LPA would not remain after mitigation.

Displacement and Relocation

The construction and operational impacts with respect to displacement and relocation are described below. The LPA would require seven partial takes, nine full takes, 12 temporary construction easements, and 26 permanent underground easements. This alternative would require these properties for construction staging, right-of-way, below grade tunneling, and stations. In Little Tokyo, six of the nine full takes would be required. This is a greater impact due to displacement than would be experienced in the rest of the study area. Thus, there would be a disproportionate adverse impact to environmental justice populations associated with displacement. The owner of record for these parcels is identified on the Right of Way Parcel Impacts Data Table in Appendix 1, Locally Preferred Alternative Drawings, of this Final EIS/EIR. Three full take parcels to be used for the 2nd/Broadway Station entrance are owned by the Tribune Company. The six parcels in Little Tokyo where full takes would be required are owned by either Robert Volk or Volk Trust. None of these property owners are minority or low-income.

Displacement of businesses and loss of the commercial space in Little Tokyo would have indirect, disproportionate, adverse impacts to the community. Mitigation measures to address these impacts are presented in Section 4.17.4.3 of this Final EIS/EIR and summarized below. For example, displaced commercial space in Little Tokyo shall be replaced with high quality commercial development opportunities consistent with Little Tokyo's community identity (EJ-14). Also, Metro shall work with the Little Tokyo and Arts District communities and CRA/LA to create joint development opportunities for the 1st/Central Avenue station site (EJ-15). Disproportionate impacts to environmental justice populations would not remain after mitigation.

Little Tokyo is a redevelopment area. The CRA/LA focuses on redevelopment of commercial areas for economic development. The reduction in physical commercial space would reduce the availability of areas for further development. Therefore, potential for increased economic development in a primarily minority community would be reduced. However, future growth encouraged by the new light rail service would generate a benefit.

Community and Neighborhoods

The construction, operational, and cumulative impacts to community and neighborhoods is described below. Construction of the LPA would temporarily inhibit access to the JANM. Access to the museum would be decreased during construction of the underground junction beneath 1st and Alameda Streets. Lane closures in the vicinity of 1st and Alameda Streets would be less frequent during the construction period of up to 48 months than they would be for the Underground Emphasis LRT Alternative yet would remain a disproportionately long duration with respect to the remainder of the study area. Loading spaces along Alameda Street would be temporarily displaced, and congestion would increase slightly, though truck trips would be routed onto primarily industrial streets and existing truck routes whenever practicable. School bus loading zones along 1st Street, which are frequently used by JANM visitors, would be affected by construction-related traffic. Overall, access to the museum building would be maintained.

Lane closures would inhibit access to businesses in Little Tokyo. Impacts to businesses would affect the entire community. Overall, business impacts of the LPA would be less than the Underground Emphasis LRT Alternative since the majority of construction activities in Little Tokyo would be concentrated on the Mangrove property, which is farther from the business areas of the community than the other potential construction sites studied. Lane closures would not similarly affect businesses elsewhere in the study area.

Construction of the LPA would temporarily inhibit access to the Los Angeles Homba Hongwanji Temple. Specifically, access to the building would be inhibited intermittently on 1st Street. However, building access on Vignes Street would be maintained.

Construction of the LPA would displace three businesses. Approximately 30 jobs would be displaced, all of which would be in Little Tokyo. The displaced businesses do not contribute to the neighborhood's identity as a Japanese American cultural and historic center. Displacement of properties would reduce the stock of commercial space in Little Tokyo. However, transit-oriented development could occur on properties where businesses were displaced. This development could generate additional commercial space and jobs.

The loss of parking under this alternative would result in indirect disproportionate effects to environmental justice populations by decreasing business viability. The Little Tokyo community has expressed concern that a loss of parking would hurt businesses crucial to the area's cultural identity. The LPA could generate a benefit by increasing transit access. However, local businesses that rely on paid parking lots and on-street parking would be adversely impacted.

Approximately 13 new construction projects are anticipated in the study area by 2014. Fifty-four new construction projects are planned between 2014 and 2019. Twelve major renovation projects are anticipated by 2014, and eight are anticipated between 2014 and 2019. Several of these projects would occur in Little Tokyo or its close vicinity and would involve the removal of public paid-parking lots. As such, parking loss that would occur under the LPA would contribute cumulatively to parking loss in Little Tokyo. Loss of parking would have cumulative, disproportionate, adverse impacts to environmental justice populations.

In summary, construction of the LPA would:

- Inhibit access to the JANM
- Displace loading spaces along Alameda Street which also affect the JANM
- Inhibit access to businesses in Little Tokyo
- Inhibit access to the Los Angeles Homba Hongwanji Temple
- Displace three businesses and 30 jobs
- Affect parking

Construction impacts would be short-term and intermittent. However, because of the impacts described in detail above that occur exclusively in Little Tokyo, construction would result in disproportionate adverse impacts to community facilities.

Mitigation measures in the Community and Neighborhood and Environmental Justice sections of the MMRP would help address these impacts. These mitigation measures are also included in Section 4.17.4.3 below and briefly summarized here. Disproportionate impacts to environmental justice populations would not remain after mitigation. Mitigation measures include:

- The temporary displacement of three bus loading spaces on Alameda Street for the JANM shall be replaced nearby for the duration of construction activities. Metro shall work with JANM to confirm locations of temporary loading spaces. (EJ-1)
- Metro shall provide assistance for businesses to maintain visibility during construction, including signage and advertisements. (EJ-12)
- Metro shall develop a construction mitigation plan with community input to directly address specific construction impacts in the study area. Metro shall establish and receive input from the Regional Connector Community Leadership Council (RCCLC) in developing the construction mitigation plan. The RCCLC shall consist of representatives from all parts of the alignment area. Metro shall work with the RCCLC in developing the outreach plan. (CN-6)
- Any unmet demand for parking spaces eliminated in Little Tokyo during construction shall be temporarily replaced within one block of the land uses that rely on those spaces, or through a combination of other measures. (EJ-2)

Visual and Aesthetic Resources

This section describes construction and operational impacts to visual and aesthetic resources. Several large components of construction would occur in and near Little Tokyo including the underground junction beneath 1st and Alameda Streets, the 1st/Central Avenue station, and the two portals. This construction is greater in both concentration and duration than elsewhere in the study area and would result in temporary disproportionate adverse impacts to Little Tokyo and the JANM. Construction equipment and work areas in this area would be larger than most laydown areas elsewhere along the alignment. Construction impacts would be short-term and intermittent, but they would result in disproportionate adverse impacts to environmental justice populations.

Mitigation measures to address these impacts are presented in Section 4.17.4.3 of this Final EIS/EIR. For example, Metro shall locate stockpile areas (storage areas for construction equipment, supplies, and excavated soil) primarily in less visually sensitive locations, where they are not visible from the road or to businesses or residents (VA-4). Disproportionate impacts to environmental justice populations would not remain after mitigation.

Regarding operation, the LPA would be entirely underground. Unlike the other build alternatives, no underpass or Alameda Street pedestrian bridge would be constructed; both of which were identified by the community as visually intrusive. However, the structures on the northern portion of the block bounded by Alameda Street, 1st Street, 2nd Street, and Central Avenue would be demolished. This would impact the visual character of Little Tokyo. Therefore, direct and indirect, disproportionate, adverse impacts to visual resources are anticipated. Mitigation measures to address these impacts are presented in Section 4.17.4.3 of this Final EIS/EIR and are consistent with displacement mitigation measures. Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

The LPA's 1st/Central Avenue station would include a ventilation shaft on the southwest corner of 1st and Alameda Streets that may extend up to one story above street level. This would not affect views of any historic buildings, and would not pose an adverse impact. Urban design measures would incorporate the ventilation structure into the existing street environment in a compatible way. No other ventilation shafts proposed for the LPA would extend above street level.

Noise and Vibration

This section describes the construction impacts due to noise and vibration. During construction, ground-borne noise (GBN) would impact the Hikari Lofts, office uses in the Japanese Village Plaza (JVP), and the Nakamura Tetsujiro Building in Little Tokyo and other sensitive receptors located along the alignment, such as the Walt Disney Concert Hall. GBN generated by LRT vehicle pass-bys associated with operation of the LPA would also impact sensitive receptors in Little Tokyo and other sensitive receptors located along the alignment, such as the Walt Disney Concert Hall. Mitigation measures have been developed to address these impacts. These effects would not disproportionately affect Little Tokyo.

During construction, ground-borne vibration (GBV) would also impact the Hikari Lofts, office uses in the JVP, and the Nakamura Tetsujiro Building in Little Tokyo. Other sensitive receptors along the alignment would not experience GBV impacts during construction. Thus, there would be a disproportionate adverse impact to environmental justice populations associated with GBV. Mitigation measures include the use of less vibration-intensive construction equipment or techniques near vibration-sensitive locations (NV-4); and construction activities that produce vibration, such as demolition, excavation, earthmoving, and ground impacting shall be sequenced so that the vibration sources do not operate simultaneously (NV-7). Additional vibration mitigation measures are included in the MMRP for the LPA, Chapter 8, of this Final EIS/EIR. Implementation of mitigation would reduce this impact to not adverse, and the impact would no longer be disproportionate.

Parklands and Other Community Facilities

This section describes construction impacts related to parklands and other community facilities. During construction of the LPA, lane closures would inhibit access to facilities adjacent to construction sites, such as JANM. Automobile and pedestrian detours would be needed. Annual festivals in the downtown area would also be temporarily affected. Impacts resulting from construction activities would disproportionately impact community facilities in Little Tokyo as compared to the remainder of the study area.

Cut and cover construction in the Financial District and Bunker Hill areas would require surface excavation along the entire LRT route. The cut and cover construction is limited in duration to a few months. However, TBM construction would be used in Little Tokyo on 2nd Street. While access modifications on 2nd Street would be less pronounced and limited to staging areas, the duration of TBM activity far exceeds that of the cut and cover elsewhere in the study area.

Unlike the Underground Emphasis LRT Alternative, no cut and cover construction would be needed at 2nd and Los Angeles Streets; therefore, access to the Little Tokyo Branch Public Library would be largely unaltered during construction, and maintained during business hours.

Although impacts have been reduced through the refinement of the LPA, adverse and disproportionate impacts to environmental justice populations, as described above, would occur during construction.

Mitigation measures to address these impacts are presented in Section 4.17.4.3 below. For example, early notification of traffic disruption shall be given to emergency service providers. Work plans and traffic control measures shall be coordinated with emergency responders to prevent impacts to emergency response times (CN-2). Traffic management and construction mitigation plans shall be developed in coordination with the community to minimize disruption and limit construction activities during special events (CN-5). Worksite Traffic Control Plans shall be developed in conjunction with LADOT and surrounding communities to minimize impacts to traffic, businesses, residents, and other stakeholders (CN-3). Disproportionate adverse impacts to environmental justice populations would not remain after mitigation.

Economic and Fiscal

This section describes the construction and operational impacts related to economic and fiscal topical areas. Construction of the LPA would result in temporary, intermittent closures of several street lanes in the study area. Unlike the Underground Emphasis LRT Alternative, long-term closure of the intersection of 1st and Alameda Streets would not be needed, and fewer adverse effects on the economic viability of businesses in Little Tokyo would occur. The introduction of construction workers in the area, who would be potential customers for restaurants and other local businesses, would yield a benefit. Construction at 1st and Alameda Streets would be performed using the cut and cover method, which would also be used in the Financial District and Bunker Hill areas. Construction would temporarily affect the adjacent JANM. Construction of the junction at the intersection of 1st and Alameda Streets could last up to 48 months on an intermittent basis. TBM operations would also be staged from the Mangrove property on the northeast corner of 1st and Alameda Streets, away from the community's business centers. Also, no cut and cover would occur on 2nd Street in Little Tokyo due to refinements made since publication of the Draft EIS/EIR, thus reducing potential impacts to businesses in the area. Alameda Street is one of the main arterials providing access to Little Tokyo, and it would be open for the duration of the construction period due to the use of temporary decking, though temporary lane closures would be needed. As such, economic and fiscal construction impacts would not affect Little Tokyo disproportionately.

Regarding operation, the LPA would enhance transportation access to Little Tokyo with a new underground station at 1st/Central Avenue. The existing Little Tokyo/Arts District Station would

be removed from service once the Regional Connector opens. However, the new 1st/Central Avenue station would have more frequent direct trains to more destinations throughout Los Angeles County. This represents improved transportation benefits for Little Tokyo, which could bring more business to the community. Businesses on the northern portion of the block bounded by Central Avenue, 1st Street, 2nd Street, and Alameda Street (Señor Fish, Weiland Brewery, The Spice Table, and the associated parking lot) would be removed. This would reduce the amount of commercial space and jobs in Little Tokyo. However, Little Tokyo is a redevelopment zone, and the additional transit infrastructure would encourage economic growth in the area. Altogether, no disproportionate adverse impacts to environmental justice populations would occur.

Safety and Security

This section describes the operational impacts to safety and security. The LPA would run entirely underground, unlike the other build alternatives. There would be no grade crossings; therefore, the potential for conflict between pedestrians or vehicles and trains would be low. Underground stations could raise security concerns, particularly at night. These safety and security issues are applicable to light rail in general. They exist regardless of the socioeconomic or ethnic status of the surrounding community. No disproportionate direct, indirect, or cumulative adverse impacts to environmental justice populations in regards to safety and security are anticipated.

Beneficial Effects

The LPA would have beneficial effects with respect to transit service equity and economic vitality and employment opportunities. The LPA would increase transit mobility throughout the region by reducing the number of transfers on the rail system and introducing new stations in the downtown area. The new 1st/Central Avenue station would have more connectivity to the rest of the rail system than the existing Little Tokyo/Arts District Station, and would benefit the community. This alternative would have direct, beneficial impacts to transit equity.

As with the other build alternatives, the LPA would reduce regional VMT and result in a beneficial impact to the study area. New rail operations would increase energy consumption in the Los Angeles Department of Water and Power (LADWP) service area by less than one percent. Therefore, beneficial impacts to energy consumption are anticipated.

As with the other build alternatives, the LPA would reduce regional VMT and result in a beneficial effect to air quality. This alternative would result in the largest reduction in VMT and the greatest benefit to air quality of any of the alternatives.

4.17.3.5.1 NEPA Finding

From an environmental justice standpoint, the greatest impacts would occur during construction. Potentially disproportionate adverse construction impacts of the LPA to environmental justice populations are described above. A sample of committed mitigation measures are also noted above. Additional detail regarding mitigation measures to address these impacts is presented in Section 4.17.4.3 of this Final EIS/EIR.

Potentially disproportionate adverse operational impacts of the LPA to environmental justice populations are described above. These include direct, indirect, and cumulative operational impacts. Examples of the committed mitigation measures to offset these impacts are noted above. These are summaries drawn from other sections of this Final EIS/EIR and are not meant to be all inclusive. Mitigation measures to address these impacts are presented in greater detail in Section 4.17.4.3 of this Final EIS/EIR.

The following adverse impacts of the LPA would weigh disproportionately on relevant communities under this alternative:

- Construction-related parking loss in Little Tokyo
- Displacement of businesses in Little Tokyo
- Decreased community cohesion in Little Tokyo due to loss of commercial space
- Construction-related traffic congestion, decreased parking and access to community facilities
- Visual changes in the community due to the removal of structures from the block bounded by 1st Street, Alameda Street, 2nd Street, and Central Avenue
- GBV generated during construction in Little Tokyo

No disproportionate impacts to environmental justice populations will remain after mitigation.

4.17.3.5.5 CEQA Determination

CEQA does not have thresholds of significance specific to environmental justice.

4.17.4 Mitigation Measures

4.17.4.1 Updates to Candidate Mitigation Measures from the Draft EIS/EIR

The Draft EIS/EIR included candidate mitigation measures for review and comment by the public, agencies, and other stakeholders. Since publication of the Draft EIS/EIR, Metro has adjusted and added specificity to the candidate mitigation measures for environmental justice presented in the Draft EIS/EIR. The final LPA mitigation measures, shown in Section 4.17.4.3 below, are included in the MMRP for the LPA, Chapter 8, of this Final EIS/EIR, and supersede candidate mitigation measures identified in the Draft EIS/EIR. Updates to the mitigation measures made since publication of the Draft EIS/EIR include:

- Addition of a parking needs assessment in Little Tokyo to confirm when and where there is demand for replacement parking during construction.
- Addition of coordination with the City to develop a parking mitigation program during construction, which could include restriping portions of streets in Little Tokyo for diagonal parking where feasible to temporarily increase parking supply.

- Addition of 200 standard or 300 valet parking spaces at the Mangrove property for use as replacement parking during construction.
- Addition of coordination with LADOT and private parking lot owners to develop advanced parking reservation systems and to keep lots open during evenings for short-term parking.
- Addition of a 24-hour hotline for community concerns regarding construction, and a project office within the Little Tokyo community.
- Addition of a RCCLC to provide input into the construction mitigation plan.
- Addition of business support services for affected Little Tokyo businesses and organizations, such as targeted advertising, sponsored coupons, incentives for construction worker patronage, and Metro-sponsored community events.
- Addition of detail to mitigation measures for consistency with other sections.

4.17.4.2 Mitigation Measures Suggested by the Little Tokyo Working Group

In response to the significant concerns of the Little Tokyo community about potential effects of the Regional Connector project construction, Metro assisted in forming a community working group to address these concerns by developing mitigation measures that would be meaningful to the Little Tokyo community. Assisted by a consultant funded through Metro, the LTWG developed a list of potential candidate mitigation measures for the LPA.

These LTWG proposed mitigation measures were included in Section 4.17.5 of the Draft EIS/EIR and Appendix EE, Environmental Justice Technical Memorandum, of this Final EIS/EIR to foster public discussion as part of the process of determining the ultimate mitigation program. Metro continued to work with the LTWG and the entire community to confirm and develop specific mitigation measures during preparation of this Final EIS/EIR. Additional discussion of the LTWG is provided in Chapter 7, Public and Agency Outreach.

It is important to note that Metro and FTA evaluated mitigation measures developed by the LTWG and included them in the Draft EIS/EIR as candidate mitigation measures for consideration during Draft EIS/EIR review. During preparation of this Final EIS/EIR, all potential mitigation measures were evaluated to determine efficacy, cost, community acceptance, and relevance to specific impacts. Metro continued to work closely with the LTWG and all affected components of the community to develop an effective mitigation program acceptable to the community, Metro, and FTA. The MMRP for the LPA in Chapter 8 of this Final EIS/EIR represents the culmination of Metro's efforts working with the community to develop appropriate mitigation measures for the LPA. Metro and FTA are fully committed to all mitigation measures in the MMRP. Metro will continue to work with the community to ensure that the MMRP is properly implemented.

4.17.4.3 Final Mitigation Measures for the Locally Preferred Alternative

Mitigation measures listed for the LPA in this section have been carried forward and included in the MMRP for the LPA, Chapter 8, of this Final EIS/EIR. They are the final committed mitigation

measures for the LPA to minimize adverse impacts associated with the construction and operation of the LPA. MMRP index numbers are shown in parenthesis after each mitigation measure. Mitigation measures denoted as EJ-X are in addition to mitigation measures drawn from the other sections of the MMRP.

To offset the impacts associated with the temporary relocation of bus service around construction areas in Little Tokyo:

- Metro shall maintain access to bus stops and provide adequate signage to guide bus users to accessible stops. Metro shall minimize temporary closures or relocations of bus stops and layover zones. Metro shall provide notices of closures and relocations on its website, smart phone apps, and other modes typically used to communicate service announcements. When closures of other bus operators' stops are needed, Metro shall work closely with the affected operators to provide notices. (TR-12)
- As needed, Metro shall temporarily relocate bus stops to nearby alternative locations based on the re-routing of bus service, and provide adequate signage and notices at strategic locations indicating the relocated bus stops. Metro shall provide notices of relocations on its website, smart phone apps, and other modes typically used to communicate service announcements. Metro shall coordinate with municipal transit providers to temporarily relocate non-Metro bus stops. When bus re-routing is necessary, buses shall be re-routed to adjacent streets in a manner that minimizes inconvenience to bus passengers and to affected neighborhoods. (TR-13)

To offset the disproportionate amounts of parking spaces that would be temporarily removed in Little Tokyo during construction and the potential impacts to businesses:

- The temporary displacement of three bus loading spaces on Alameda Street for the JANM shall be replaced nearby for the duration of construction activities. Metro shall work with JANM to confirm locations of temporary loading spaces. (EJ-1)
- Metro shall not hinder access to other public parking lots during construction. (DR-5)
- Metro shall identify which restaurants within Little Tokyo would be interested in establishing curbside pickup. Metro shall work with the City of Los Angeles to allow temporary curbside parking during construction, which would allow Metro to establish curbside pickup for Little Tokyo restaurants. (EJ-10)
- Prior to construction, Metro shall conduct an annual parking needs assessment in Little Tokyo. Metro shall provide replacement parking for spaces lost as a result of the project as described in EJ-3 and to respond to the needs identified in the parking needs assessment. Metro shall work with Little Tokyo and surrounding communities to educate visitors and residents where parking is available during construction. Metro shall monitor parking, and the parking analysis shall be conducted on an annual basis throughout the duration of construction. This effort shall include new signage and other way finding features as appropriate. (EJ-11)

- Any unmet demand for parking spaces eliminated in Little Tokyo during construction shall be temporarily replaced within one block of the land uses that rely on those spaces, or through a combination of the following measures: (EJ-2)
- Metro shall work with the City to develop a parking mitigation program to mitigate the loss of public parking spaces during construction. This would include, but is not limited to, restriping the existing street to allow for diagonal parking, reducing the number of restricted parking areas, phasing construction activities in a way that minimizes parking disruption, and increasing the time limits for on-street parking. Restriping would occur on portions of Temple Street, Alameda Street, 1st Street, 2nd Street, Central Avenue, San Pedro Street, Judge John Aiso Street, 3rd Street, and Traction Avenue. Such parking mitigation shall be implemented on a temporary, tiered basis pending findings of the annual parking analysis described in EJ-11 in the MMRP for the LPA, Chapter 8, of this Final EIS/EIR. (DR-4)
- Metro shall provide two acres of land on the Mangrove property (northeast of 1st and Alameda Streets) for the purposes of providing alternative parking services during construction, which could include satellite parking served by shuttle buses, valet parking from vehicle pick-up/drop-off in the central business areas of Little Tokyo, and standard self-parking. The number of spaces provided would range from 200 standard spaces to approximately 300 spaces when supplemental parking services are operating. Any parking services shall be operated by a licensed/bonded parking company and shall be selected through a competitive request for proposal (RFP) process. Cost to park shall be comparable with current cost to park. This shall offset the temporary loss of parking available to patrons of Little Tokyo businesses, and other visitors, during construction. (EJ-3)
- Metro shall provide notices of traffic control plans and parking relocations on its website, smart phone apps, and other modes typically used to communicate service announcements. (EJ-4)
- Metro shall support efforts to curb non-legitimate use of disabled parking spaces. (EJ-5)
- Metro shall work with LADOT, owners of private parking lots, and businesses to develop an advanced parking reservation system at cooperative and suitable locations during construction. (EJ-6)
- Metro shall work with LADOT to open city parking lots for short-term use on evenings and weekends during construction in the vicinity of Little Tokyo. (EJ-7)
- Metro shall work with the City of Los Angeles to reduce impacts of government vehicles parking on 2nd Street during construction, such as identification of alternate parking areas. (EJ-8)
- Metro shall work with the City of Los Angeles and the Little Tokyo Business Improvement District to facilitate creation of financial incentives such as parking validation programs to prioritize parking for Little Tokyo customers, residents, and businesses during construction. (EJ-9)

In addition to the mitigation measures above, any remaining disproportionate community and neighborhood impacts that occur in Little Tokyo during construction (including potentially disproportionate visual alteration due to the removal of structures) will be offset by the following mitigation measures:

- Metro shall provide assistance for businesses to maintain visibility during construction, including signage and advertisements. (EJ-12)
- Accessible detours shall be provided whenever possible. Detours shall be compliant with the Americans with Disabilities Act. Signage shall be provided in those languages most commonly spoken in the immediate community. Signs shall mark detours in accordance with the Manual on Uniform Traffic Control Devices, and other applicable local and state requirements. Detours shall be designed to minimize cut-through traffic in adjacent residential areas. (CN-1)
- Early notification of traffic disruption shall be given to emergency service providers. Work plans and traffic control measures shall be coordinated with emergency responders to prevent impacts to emergency response times. (CN-2)
- Traffic management and construction mitigation plans shall be developed in coordination with the community to minimize disruption and limit construction activities during special events. Worksite Traffic Control Plans shall be developed in conjunction with LADOT and surrounding communities to minimize impacts to traffic, businesses, residents, and other stakeholders. Crossing guards and other temporary traffic controls shall be provided in the vicinity of construction sites, haul routes, and other relevant sites as proposed in California DOT Traffic Manual, Section 10-07.3, Warrants for Adult Crossing Guards, and as appropriate to maintain traffic flow during construction. (CN-3)
- A 24-hour live hotline for community concerns regarding construction shall be provided, as well as a project office within the Little Tokyo community. Residents and businesses shall also be provided with comment/complaint forms during construction. A construction office shall also be placed within the community to provide in-person assistance and services. Metro shall negotiate with the JANM to locate the office within the museum's historic building on 1st Street. The hotline and office shall enable Metro to maintain day-to-day contact with the community during construction and provide community members with all project details that may be relevant to the public. (CN-4)
- A community outreach plan shall be developed and implemented to notify local communities and the general public of construction schedules and road and sidewalk detours. Metro shall coordinate with local communities during preparation of the traffic management plans to minimize potential construction impacts to community resources and special events. Construction activities shall be coordinated with special events. (CN-5)
- Metro shall develop a construction mitigation plan with community input to directly address specific construction impacts in the project area. Metro shall establish and receive input from the RCCLC in developing the construction mitigation plan. The RCCLC shall consist of

representatives from all parts of the alignment area. Metro shall work with the RCCLC in developing the outreach plan. (CN-6)

- Barriers shall be erected and security personnel provided during construction to minimize trespassing and vandalism. Barriers shall be enhanced with culturally-relevant artwork, attractive design features, and advertisements for parking locations and businesses. Signage shall also identify that businesses are open during construction. Community input shall be sought in determining artwork and design features. (CN-7)
- Metro shall maintain access to the Little Tokyo Library and other community facilities at all times during construction. (DR-6)
- Metro shall develop a Construction Mitigation Program that includes protocol for community notification of construction activities, including traffic control measures, schedule of activities, and duration of operations, with written communications to the community translated into appropriate languages. (DR-7)
- Prior to the initiation of localized construction activities, a traffic management and construction mitigation plan shall be devised. The closure schedules in the construction traffic plan shall be coordinated to minimize impacts to residences, businesses, special events, and traffic flow. During these times, traffic shall be re-routed to adjacent streets via clearly marked detours. The traffic management and construction mitigation plan shall identify, for instance, proposed closure schedules and detour routes; construction traffic routes, including haul truck route, and hours so as to avoid peak hours where feasible. It shall also account for the provisions below. Traffic flow shall be maintained, particularly during peak hours, to the degree feasible. Access to adjacent businesses shall be maintained via existing or temporary driveways at all times during business hours, and residences at all times. Metro shall provide signage to indicate new ways to access businesses and community facilities affected by construction. Metro shall post advance notice signs prior to construction in areas where business access could be affected. Metro shall also notify LADOT in advance of street closures, detours, or temporary lane reductions. Metro shall also inform advisory committees of known road closures during regularly scheduled meetings. (TR-1)
- Haul routes for trucks shall be confirmed during the final design phase of the project. The routes shall be located to minimize noise, vibration, and other possible impacts to adjacent businesses and neighborhoods. Truck trips shall be primarily scheduled at times when they would be least disruptive to the community. Lighted or reflective signage shall direct truck drivers to the haul routes. If physical damage to the haul route roads occurs due to project-related traffic, the roads shall be restored to their pre-construction condition as quickly as is practicable. Haul routes shall be discussed with and approved by the City of Los Angeles through the Transportation Construction Traffic Management Committee. (TR-2)
- Safe pedestrian detours with handrails, fences, k-rail, canopies, and walkways shall be provided as needed. When a crosswalk is closed due to construction activities, pedestrians

shall be directed to nearby alternate crosswalks. Access shall be ADA accessible at all times per existing Metro policy. (TR-4)

- Bicyclists shall be encouraged through signage to ride carefully in streets near construction activities, ride carefully on sidewalks (as City of Los Angeles municipal code permits), or choose nearby alternate routes around construction sites. Detours shall be provided as needed. Metro shall provide signage showing the alternate bicycle routes. Pedestrian and bicycle circulation, and travel lanes temporarily impacted during construction shall be restored to their permanent configurations at the conclusion of the construction period and prior to operations. (TR-5)
- Metro shall work with the Little Tokyo and Arts District communities and the CRA/LA to create joint development opportunities for the 1st/Central Avenue station site. (EJ-15)
- Metro shall provide services to support affected Little Tokyo businesses and organizations during construction such as targeted advertising and marketing campaigns, Metro-sponsored coupons, incentives for construction worker patronage, and Metro-sponsored community events. Metro shall provide free technical support assistance (i.e., website development) to local businesses on strategies for business development that can minimize any adverse impacts of construction. This can include, but not be limited to, assistance with accounting or advertising. Metro shall work with the RCCLC including businesses, tenants, property owners, and government agencies with jurisdiction to make policy to resolve issues arising from adverse business issues during all phases of construction. The committee shall work to develop an implementation plan for these services and determine their content. The committee shall also be kept apprised of construction progress and upcoming transit, parking, or access changes. Metro shall provide maps showing existing and planned access during all phases of construction. Metro shall also provide directional signage to temporary parking facilities. These activities shall be conducted in a manner consistent with the similar program developed for the Crenshaw Transit Corridor Project. (EJ-16)
- Surface level construction activities shall be curtailed to the extent feasible during major Little Tokyo festivals and outdoor events to ensure that noise, air quality, traffic, and parking issues do not adversely affect these economically vital events. Metro shall request a list of events and festivities from the Little Tokyo community. (EJ-17)
- Metro shall work with the Little Tokyo community businesses to minimize adverse impacts to business operations associated with utility relocation and protection of existing utilities. Metro shall offer the services described above. (EJ-19)

In addition to the mitigation measures above, the following mitigation measures will offset the potentially disproportionate property acquisitions and business relocations that would occur in Little Tokyo:

- Should parcels used for construction staging be proposed for redevelopment in the future, Metro is committed to involving the community in the redevelopment of construction staging areas following completion of construction activities. Metro shall do this through its established Joint Development Policy. (EJ-13)
- Metro shall work with CRA/LA as described above in mitigation measure EJ-15 in the MMRP for the LPA, Chapter 8, of this Final EIS/EIR.
- Metro shall provide relocation assistance and compensation as required by the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. (DR-8)

In addition to the mitigation measures above, the following will offset the potentially disproportionate long-term displacement of commercial space:

- Displaced commercial space in Little Tokyo shall be replaced with high quality commercial development opportunities consistent with Little Tokyo's community identity. This could include development at the 1st/Central Avenue station site. Depending on the type of new development, it would potentially create at least as many jobs as had been displaced. (EJ-14)

In addition to the mitigation measures above, the following will offset the potentially disproportionate GBV impact during construction to the Hikari Lofts, office uses in the JVP, and the Nakamura Tetsujiro Building in Little Tokyo:

- Metro shall provide advance notice and coordinate with the affected property owners regarding schedules for tunneling and other activities prior to the commencement of those activities. (NV-25)
- Metro shall provide advanced notification and coordination by doing the following:
 - Metro shall establish a Construction Community Relation Program to inform and coordinate construction activities including notification to all occupants at the Hikari Lofts, the interior designer office at the JVP, and the Nakamura Tetsujiro Building about the schedule of tunneling activities at least one month prior to the start of the activities.
 - Metro shall monitor GBN and GBV levels in the in the building adjacent to TBM activity during its operation in that area.
 - During the few days the TBM will be operating in this area, should GBN or GBV measurements exceed FTA annoyance criteria for short-term impacts during construction, Metro shall offer to temporarily relocate affected residents. (NV-26)

In addition to the mitigation measures above, the following will offset the potentially disproportionate economic and fiscal impacts to businesses during construction in Little Tokyo:

- Metro shall work with the Little Tokyo Business Association to help offset the neighborhood impacts associated with reduced revenue from the Business Improvement District funds during construction due to the removal of acquired businesses. Metro shall also offer the

services described above. Metro shall use Metro's existing claims process to address physical damage (utility interruption, for example). (EJ-18)

In addition to the mitigation measures above, the following will address the potentially adverse transportation impacts in Little Tokyo during construction:

- Metro shall provide advertising on its transit buses and other typical means of communication publicizing construction plans and alternatives to travel and park in Little Tokyo during the construction period. Metro shall also place these advertisements on construction site walls if the community desires. (EJ-20)
- Metro shall avoid haul routes along 1st Street or along Alameda Street between 3rd Street and US 101 where possible. Haul routes shall be confirmed with the input of the community. (EJ-21)

In addition to the mitigation measures above, to address the effects of construction activities and the associated safety and security needs being disproportionately centered in Little Tokyo:

- Metro shall publish safety and security information at stations in Japanese, Korean, and Spanish. This includes both written and verbal announcements at stations. (EJ-22)
- Metro shall publish materials for the project's safety education campaign in Japanese, Korean, and Spanish. (EJ-23)
- Metro shall involve the Little Tokyo Public Safety Association in the development of safety and security plans. (EJ-24)
- Metro shall monitor and ensure implementation of committed mitigation measures designed to address safety and security concerns. (EJ-25)

More operation noise may be audible in Little Tokyo than other parts of the alignment due to the portals and open-roof station:

- Depending on the potential location and scope of the system's ventilation equipment, orient the exhaust away from downwind receptors to minimize noise from ventilation as well as underground train horns and related operational sounds. (EJ-26)

In addition to the mitigation measures above, the following will offset the effects of construction activities and the associated air quality impacts being centered in Little Tokyo:

- Metro shall implement receptor-based mitigation where needed to reduce construction-related pollutant levels below significance thresholds. This could include installation of high efficiency particulate air filters on HVAC equipment at downwind receptors during construction activities. (EJ-27)
- Contractors shall be required to adhere to South Coast Air Quality Management District (SCAQMD) standards for off-road engine emissions (refer to Section 4.5.1.1). Examples of

how the contractors could ensure adherence include retrofitting off-road engines with add-on control devices such as catalytic oxidizers and diesel particulate filters where feasible. (AQ-1)

- Metro shall require contractors to use equipment that meets up-to-date specifications (equivalent to models manufactured from 2013 to 2017) for pollutant emissions during project construction. (AQ-2)
- Contractors shall be required to adhere to SCAQMD standards for dust emissions such as SCAQMD Rule 403. Examples of how the contractors could ensure adherence include applying water or a stabilizing agent to exposed surfaces in sufficient quantity to prevent generation of dust plumes. (AQ-3)
- Dirt from construction equipment shall not extend 25 feet or more from an active operation, and shall be removed at the conclusion of each workday (refer to Section 4.5.3.3). Street sweeping services shall be coordinated with construction activity to minimize impacts to surrounding businesses and residences. (AQ-4)
- Contractors shall be required to utilize at least one of the measures set forth in the SCAQMD Rule 403 Section (d)(5) to remove bulk material from tires and vehicle undercarriages before vehicles exit the project site. (AQ-5)
- All haul trucks hauling soil, sand, and other loose materials shall be covered (e.g., with tarps or other enclosures that would reduce dust emissions) (refer to Section 4.5.1.1). (AQ-7)
- Traffic speeds on unpaved roads shall be limited to 15 MPH. (AQ-8)
- Heavy equipment operations shall be suspended during second stage smog alerts as issued by the SCAQMD. (AQ-10)

In addition to the mitigation measures above, the following will mitigate land use impacts in Little Tokyo:

- Metro shall maximize opportunities to the extent feasible for enhancing access from existing land uses to the new station. (EJ-28)

To offset the potential risk of subsurface impacts associated with tunneling beneath existing buildings in Little Tokyo:

- Design of underground facilities shall avoid potential subsurface impacts to adjacent buildings. (EJ-29)
- Before any construction, a survey of structures within the anticipated zone of construction influence shall be conducted in order to establish baseline conditions. A geotechnical instrumentation and settlement monitoring plan and mitigation measures shall be developed and adhered to during construction to ensure appropriate measures are taken to address any construction-induced movement. If assessments indicate the necessity to

proactively protect nearby structures, additional support for the structures by underpinning or other ground improvement techniques shall be required prior to the underground construction. Metro shall require the construction contractor to limit movement to less than acceptable threshold values for vertical, horizontal, and angular deformation as a performance standard. These acceptable threshold values shall be established such that the risk of damage to buildings and utilities will be negligible to very slight. For buildings, these threshold values will be based on the relationship of building damage to angular distortion and horizontal strain consistent with Boscardin and Cording (1989) and qualitative factors including but not limited to the type of structure and its existing condition. For utility mains, these threshold values shall be those established by the utility owners. Additional data and survey information shall be gathered during final design for each building and utility main to enable assessment of the tolerance of potentially affected structures and utilities. Additional engineering and design level geotechnical studies shall be performed to define the nature of the soils and to refine the means of achieving each performance specification. (GT-1)

- Ground improvement such as grouting or other methods shall be required to fill voids where appropriate and offset potential settlement when excess material has been removed during excavation. The criteria for implementing grouting or ground improvement measures shall be based on the analysis described in mitigation measure GT-1. (GT-2)
- The tunnel alignment shall be grouted in advance to provide adequate soil support and minimize settlement as geotechnical conditions require. (GT-3)
- Settlement along the project alignment shall be monitored using a series of measuring devices above the route of the alignment. Leveling surveys shall be conducted prior to tunneling to monitor for possible ground movements. (GT-4)
- Tunnel construction monitoring requirements shall be described and defined in design contract documents. Additional geotechnical provisions shall be included to the extent feasible, including use of an Earth Pressure Balance or Slurry TBM for tunnel construction to minimize ground loss. During tunnel construction, the soils encountered shall be monitored relative to anticipated soil conditions as described in a Geotechnical Baseline Report. (GT-5)

To offset the effects of tree removal in Little Tokyo:

- New trees planted at station locations shall be regularly monitored by Metro to ensure healthy growth and development. Metro shall replace trees as close as possible to original locations. (EJ-30)
- Metro shall provide the Little Tokyo and Arts District communities with opportunities for input into the development of landscape plans for the 1st/Central Avenue station throughout the preliminary engineering and final design processes. (EJ-31)

To ensure that foreign-language speakers have access to project meetings and information:

- Information shall be made available in Japanese and Korean, and flyers for project meetings shall indicate that there will be both Japanese and Korean translators present. (EJ-32)

To offset the disproportionate concentration of TBM activities being disproportionately concentrated in the vicinity of Little Tokyo:

- Metro shall require the construction contractor to perform TBM operations for a period not extending beyond 48 months. This limit may need to be raised should circumstances arise that are beyond the control of Metro and the construction contractor. The community shall be notified if such a situation occurs. (EJ-33)
- Metro shall prepare a procedure for rapid shut-down of construction should maximum acceptable vibration thresholds be reached. (EJ-34)
- Metro shall prepare a cost-benefit analysis of using one versus two TBMs, and shall select the least impactful cost-effective solution. (EJ-35)

