3.18 CEQA Impact Summary Table

Table 3-18-1 (Summary of All Impacts and Proposed Mitigation for LRT Alternatives) provides a comprehensive identification of the project's environmental impacts, including the level of significance under CEQA, the mitigation measures proposed to address the impact, and the level of significance under CEQA after the mitigation is applied. The following abbreviations are used to classify impacts by level of significance:

- NI = No Impact
- B = Beneficial Impact
- S = Significant or Potentially Significant Impact (before mitigation)
- LTS = Less Than Significant (below threshold either before or after mitigation)
- SU = Significant Unavoidable Impact (mitigation would not reduce to less than significant)

The differences among the LRT Alternatives in terms of impacts, mitigation, and level of significance are called out in the table. If only one level of significance classification is provided, then it is assumed that the impacts, mitigation, and level of significance are the same among the LRT Alternatives. Further, the table focuses exclusively on the LRT Alternatives because the TSM Alternative would not have any impacts that would require mitigation measures.

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
3.2 Transportation/Traffic			
The proposed project would have a beneficial impact on Los Angeles County and Expo study area mobility indicators. VMT and VHT would be reduced.	All LRT: B	None	All LRT: B
The proposed project would have a beneficial impact on study area transit mobility indicators. Daily transit trips and boardings, and the overall transit mode share would increase.	All LRT: B	None	All LRT: B
The proposed project would not substantially disrupt traffic operations or affect emergency vehicle response. The project would result in changes to traffic operations as a result of project-related changes to local circulation, station access traffic, and grade crossing delays. However, the project also includes a large number of roadway improvements at at-grade crossings and other locations in the vicinity of stations.	All LRT: LTS	None	All LRT: LTS
The proposed project would not result in a substantial amount of traffic diversion onto residential streets. Traffic measures proposed as part of the project only affect residential traffic with very low volumes and highly localized detours. It is not expected that LRT Alternatives will cause redistribution of traffic into adjacent neighborhoods or onto nearby parallel streets or arterials.	All LRT: LTS	None	All LRT: LTS
Development of some of the LRT Alternatives would result in increased delays at local intersections or reduction of the intersection level of service to below E or F. Some of the study intersections in the vicinity	LRT 3 & 4: S LRT 1 & 2: LTS	**MM TR-1** *Clarington Avenue/Venice Boulevard.* Adjust signal timing and add a southbound left-turn lane. This additional lane will require the removal of on-street parking on	LRT 3 & 4: SU LRT 1 & 2: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
of the project LRT Alternatives would experience a potentially significant increase in delay without mitigation. Five out of the ~~86~~ninety study intersections would be significantly impacted under the LRT Alternatives. Impact at three of these five intersections would be considered less than significant after mitigation and two intersections are expected to remain with significant unavoidable impacts. These are the intersection of Sepulveda and Palms Boulevards, and Girard Avenue and Venice Boulevard.		both sides of Clarington Avenue. Property would have to be acquired to provide replacement parking. Potential parcels at the northwest and southwest corners of the Hughes Avenue/Venice Boulevard intersection have been identified. **MM TR-2** *Hughes Avenue/Venice Boulevard.* Adjust signal timing and add a northbound left-turn lane, a southbound left-turn lane, and an eastbound right-turn lane. These additional lanes will require the removal of on-street parking on both sides of Hughes Avenue. Property would have to be acquired to provide replacement parking. Potential parcels at the northwest and southwest corners of the Hughes Avenue/Venice Boulevard intersection have been identified. **MM TR-3** *20th St/Olympic Boulevard.* Adjust signal timing and add a northbound right-turn lane. To make it a feasible mitigation, partial acquisitions may~~will~~ be required for corner cuts at all four corners of the intersection.	
Based on the ridership and mode of transit access forecasts at the proposed LRT stations, the demand for parking will exceed the proposed supply at several stations, potentially resulting in some parking intrusion into adjacent neighborhoods. Spillover parking in the neighborhoods around the stations can be expected to occur around all of the stations except the Sepulveda/National ~~and Colorado/4th Street~~ Station~~s~~.	All LRT: S	**MM TR-4** In the quarter mile area surrounding each station where spillover parking is anticipated, a program shall be established to monitor the on-street parking activity in the area prior to the opening of service and shall monitor the availability of parking monthly for six months following the opening of service. If a parking shortage is determined to have	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		occurred (i.e., existing parking space utilization increases to 100 percent) due to the parking activity of the LRT patrons, Metro shall work with the appropriate local jurisdiction and affected communities to assess the need for and specific elements of a permit parking program for the impacted neighborhoods. The guidelines established by each local jurisdiction for the assessment of permit parking programs and the development of community consensus on the details of the permit program shall be followed. Metro shall reimburse the local jurisdictions for the costs associated with developing the local permit parking programs within one-quarter mile of the stations and for the costs of the signs posted in the neighborhoods. Metro will not be responsible for the costs of permits for residents desiring to park on the streets in the permit districts. For those locations where station spillover parking cannot be addressed through implementation of a permit program, alternative mitigation options include time-restricted, metered, or shared parking arrangements. Metro will work with the local jurisdictions to determine which option(s) to implement.	
Other than the study area freeways (Interstate 10 and Interstate 405), which are part of the Countywide Congestion Management Plan (CMP) network, only one study area intersection falls under the CMP	LRT 3 & 4: LTS LRT 1 & 2: NI	None	LRT 3 & 4: LTS LRT 1 & 2: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
arterial network. This is the intersection of Sepulveda Boulevard and Venice Boulevard. Given the traffic volumes generated by the proposed project, it is not expected that the project will impact any of the study area freeways or the one CMP intersection by increasing the V/C by more than two percent of the capacity.			
Development of the proposed project would result in loss of existing on-street parking spaces along the project corridor. However, the overall utilization of parking is less than 50 percent along most of the segments. Along most roadway segments, replacement parking options are available on adjacent streets~~, within the Exposition ROW~~ or acquired parcels as part of the project. At locations where replacement parking options are not available along adjacent streets~~ or the Exposition ROW~~, the identified mitigation measures would be implemented. Implementation of the mitigation measures would reduce the impacts of displaced on-street parking spaces along the affected segments to be ***less than significant*** for all LRT Alternatives.	All LRT: S	~~**MM TR-5** *Overland Avenue.* The parking time limit of adjacent streets should be lengthened to accommodate parking spaces being displaced on Overland Avenue.~~ **Segment 1a: Venice/Sepulveda (LRT 3 and 4)** **MM TR-6** *Venice Boulevard.* The loss of on-street parking on Venice Boulevard cannot be accommodated on adjacent streets due to the high overall parking demand in adjacent neighborhoods. Replacement parking would be required along the affected sections of Venice Boulevard. The potential replacement parking lots are listed below: **MM TR-6(a)** *South Side of Venice Boulevard, between Robertson Boulevard to Watseka Avenue.* Property would have to be acquired to provide replacement parking. A potential parcel at the southeast corner of Venice Boulevard and Main Street has been identified. **MM TR-6(b)** *North side of Venice Boulevard, between Robertson Boulevard and Watseka*	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		Avenue. Property would have to be acquired to provide replacement parking. A potential parcel at the northeast corner of the Canfield Avenue and Venice Boulevard intersection has been identified. **MM TR-6(c)** *Venice Boulevard, between Watseka Avenue and Jasmine Avenue.* Property would have to be acquired to provide replacement parking. Potential parcels at the northwest and southwest corners of the Hughes Avenue/Venice Boulevard intersection have been identified. **MM TR-6(d)** *Venice Boulevard, between Jasmine Avenue and Glendon Avenue/Midway Avenue.* Property would have to be acquired to provide replacement parking. Potential parcels at the northwest corners of Venice Boulevard/Motor Avenue and Venice Boulevard/Keystone Avenue have been identified. **MM TR-6(e)** *Venice Boulevard, between Glendon Avenue/Midway Avenue and Sepulveda Boulevard.* Property would have to be acquired to provide replacement parking. Potential parcels on the south side of Venice Boulevard have been identified. **MM TR-7** *Sepulveda Boulevard.* Replacement parking would be required along the affected portions of Sepulveda Boulevard. The potential replacement parking lots are listed below:	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		MM TR-7(a) *Sepulveda Boulevard, between Venice Boulevard and Charnock Road.* Property would have to be acquired to provide replacement parking. Potential parcels at the northeast corner of Venice Boulevard and Sepulveda Boulevard, northwest corner of Regent Street and Sepulveda Boulevard, and northwest corner of Charnock Road (South) and Sepulveda Boulevard, have been identified. **MM TR-7(b)** *Sepulveda Boulevard, between Charnock Road and Sepulveda Channel.* Property would have to be acquired to provide replacement parking. Potential parcels at the northeast corner of Venice Boulevard and Sepulveda Boulevard, northwest corner of Regent Street and Sepulveda Boulevard, and northwest corner of Charnock Road (South) and Sepulveda Boulevard, have been identified. **MM TR-7(c)** *Sepulveda Boulevard, between Sepulveda Channel and Clover Avenue.* Property would have to be acquired to provide replacement parking. A potential parcel at the northwest corner of Clover Avenue and Sepulveda Boulevard has been identified. **MM TR-7(d)** *Sepulveda Boulevard, between Clover Avenue and I-10.* Property would have to be acquired to provide replacement parking. Potential parcels on the west side of the street	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		have been identified. **MM TR-7(e)** *Sepulveda Boulevard, between I-10 and Exposition Boulevard.* Property would have to be acquired to provide replacement parking. Potential parcels along the east side of the street have been identified. **Segment 3: Olympic (LRT 1 and 3)** **MM TR-8** *Olympic Boulevard (20th Street to Euclid Street).* Property would have to be acquired to provide replacement parking. Potential parcels at the southwest corners of 17th Street/Olympic Boulevard and 16th Street/Olympic Boulevard have been identified. **Segment 3a: Colorado (LRT 2 and 4)** **MM TR-9** *Colorado Avenue.* Replacement parking would be required along the impacted portions of Colorado Avenue. The potential replacement parking lots are listed below. Additional replacement options could include implementation of diagonal parking on adjacent streets (after extensive neighborhood outreach), or the implementation of design options, which would reduce the extent of parking impacts. **MM TR-9(a)** *South side of Colorado Avenue, between 14th Street and 11th Street.* Property would have to be acquired to provide replacement parking. Potential parcels on the south side of Colorado Avenue between 18th	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		Street and 16th Street have been identified. **MM TR-9(b)** *South side of Colorado Avenue, between 11th Street and 4th Street.* Property would have to be acquired to provide replacement parking. A p~~P~~otential parcel~~s~~ at the ~~southwest corner of Lincoln Boulevard~~ northwest corner of 6th Street and Colorado Avenue ha~~s~~ve been identified.	
Development of the proposed project would not result in loss of off-street parking along the project corridor.	All LRT: NI	None	All LRT: NI
Development of the proposed project would not potentially result in significant impacts on the pedestrian safe routes to school.	All LRT: LTS	None	All LRT: LTS
Development of the proposed project will not eliminate any existing or planned pedestrian/bicycle facilities and hence will not result in any unsafe conditions for pedestrians and bicyclists.	All LRT: NI	None	All LRT: NI
Development of the proposed project would implement adopted policies supporting alternative transportation.	All LRT: B	None	All LRT: B
3.3 Aesthetics			
Implementation of the proposed project would result in an impact on a scenic vista, or damage or remove important aesthetic features (e.g., removal of vegetation originally intended to enhance the appearance of the constructed environment) as the result of the removal of coral trees in Segment 3 (Olympic) (LRT Alternatives 1 and 3).	LRT 1 & 3: S LRT 2 & 4: LTS	**MM AES-1** Prior to the issuance of grading permits associated with construction along Olympic Boulevard of Segment 3 (Olympic), the Expo Authority shall consult with the City of Santa Monica ~~-~~'s Community Forester and/or Director of Recreation and Parks to determine whether the coral trees could be relocated	LRT 1 & 3: SU LRT 2 & 4: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		within the Olympic Boulevard Corridor. If relocation within the Olympic Boulevard Corridor is not feasible, the Expo Authority shall relocate the trees within the City of Santa Monica, as determined by the Community Forester and/or Director of Recreation and Parks. If the Community Forester determines that relocation of the coral trees is not feasible, the Expo Authority shall replace the trees at a minimum of 1:1 (1 impacted: 1 replaced) within the Olympic Boulevard Corridor. The species and locations shall be consistent with the Metro Design Criteria and/or the City of Santa Monica Tree Code, and subject to the approval of the Director of Recreation and Parks. In the event the ROW is not wide enough to allow for establishment of mature replacement trees, The Expo Authority shall plant trees within the City of Santa Monica, as determined by the Community Forester and/or Director of Recreation and Parks.~~negotiate with the City of Santa Monica on tree replacement.~~	
Implementation of the proposed project would not substantially damage a scenic resource, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway; therefore, the proposed project would have no impact in any of the segments.	All LRT: NI	None	All LRT: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
Implementation of the proposed project could substantially degrade the existing visual character or quality of the site and its surroundings. This is considered a potential impact for a portion of Segment 1 (Expo ROW) (LRT Alternatives 1 and 2) (i.e., Expo/Westwood Station site) and all of Segment 1a (Venice/Sepulveda) (LRT Alternatives 3 and 4) (i.e., visual dominance of the aerial structures).	All LRT: S	**MM AES-2** In the event that a property acquisition along Segment 1a (Venice/Sepulveda) results in residential uses fronting directly onto a city street that was previously shielded by the acquired property, a barrier, such as fencing or a wall, and landscaping, shall be installed where feasible to shield the existing residential uses from the reconfigured streetscape.	All LRT: SU
Implementation of the proposed project would result in new sources of increased daytime glare and/or nighttime light. This is considered a potential impact. Compliance with *Metro Design Criteria* would reduce this impact.	All LRT: LTS	None	All LRT: LTS
3.4 Air Quality			
The proposed project is fully conforming to the 2007 AQMP and California's SIP.	All LRT: B	None	All LRT: B
Violation of an Air Quality Standard: Operation of the proposed project would not generate emissions that exceed NAAQS or SCAQMD thresholds. All LRT Alternatives would result in a reduction in regional emission levels creating a beneficial impact.	All LRT: B	None	All LRT: B
Exceed thresholds for daily operations emissions: Operation of the proposed project would not generate emissions that exceed SCAQMD thresholds. All LRT Alternatives would result in a reduction of regional emission levels and there would be a beneficial impact.	All LRT: B	None	All LRT: B

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
Non-attainment criteria pollutants: Implementation of all LRT Alternatives would result in lower countywide VMT and emissions, and there would be a beneficial impact.	All LRT: B	None	All LRT: B
Sensitive Receptors: Implementation of the proposed project would not result in increased traffic congestion; therefore, traffic volumes would not result in an increase in localized CO concentrations (hotspots) at nearby intersections (that could affect sensitive receptors) to levels that exceed national or state standards.	All LRT: LTS	None	All LRT: LTS
The proposed project could create objectionable odors, but Metro operations and maintenance requirements will offset the potential.	All LRT: LTS	None	All LRT: LTS
3.5 Global Climate Change			
The proposed project would not ~~contribute to a regional reduction in~~create greenhouse gas emissions that would directly or indirectly have a significant impact based on any threshold of significance by increasing the availability of alternative transportation options, removing single-occupancy vehicles from the road. On a regional basis, the proposed project would reduce greenhouse gas emissions.	All LRT: ~~B~~ LTS	None	~~All~~ LRT 1: B LRT 2,3,4: LTS
The proposed project would not conflict with any existing applicable agency plan, policy, or regulation adopted for the purpose of reducing greenhouse gas emissions. On a regional basis, the proposed project would reduce greenhouse gas emissions.	All LRT: LTS	None	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
3.6 Biological Resources			
Implementation of the proposed project would not negatively effect and federal, state or locally designated sensitive species.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project would not result in a substantial impact on riparian habitat or other sensitive natural communities.	All LRT: NI	None	All LRT: NI
Implementation of the proposed project in Segment 1a (Venice/Sepulveda) (LRT Alternatives 3 and 4) would avoid impact on federally protected wetlands by clear spanning the Sepulveda Channel.	LRT 1 & 2:NI LRT 3 &4:LTS	None	LRT 1 & 2: NI LRT 3 &4: LTS
Implementation of the proposed project would not interfere with the movement of any native or migratory fish or wildlife species.	All LRT: NI	None	All LRT: NI
Implementation of the proposed project could result in the removal of protected trees and introduction of vegetation. The Expo Authority would seek appropriate permits prior to tree removal or planting.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project would not conflict with an adopted Habitat Conservation Plan.	All LRT: NI	None	All LRT: NI
3.7 Cultural Resources			
Implementation of the proposed project could result in impacts to previously unidentified archaeological resources that may be potentially eligible for the California Register.	All LRT: S	**MM CUL-1** Per CEQA Guidelines Section 21803.2(i), "a lead agency may make provisions for archaeological sites accidentally discovered during construction. These provisions may include an immediate evaluation of the find. If the find is determined to be a unique archaeological resource,	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		contingency funding and a time allotment sufficient to allow recovering an archaeological sample or to employ one of the avoidance measures may be required under the provisions set forth in this section. Construction work may continue on other parts of the building site while archaeological mitigation takes place." This project involves ground-disturbing activities throughout the area defined as the archaeological APE. Prior to the commencement of construction activities, a Cultural Resources Treatment Plan, including a Discovery Plan, shall be prepared describing a site-specific archaeological monitoring program for high potential areas and treatment methods that will be implemented in the event archaeological resources are discovered during construction. Because buried or otherwise obscured archaeological resources may be encountered, an archaeological monitoring program shall be implemented in accordance with the project's ~~MOA.~~ Treatment Plan. Archaeological monitoring of ground-disturbing activities shall be limited to those portions of the Expo ROW that are presently obscured by pavement and/or buildings, and on Venice Boulevard where there exists ~~a~~the possibility of encountering	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		archaeological remnants associated with the Venice Short Line, unless it can be ascertained that previous ground disturbance has eliminated the potential to yield archaeological resources. Monitoring shall be conducted by a qualified archaeological monitor who is working under the direct supervision of a Project Manager or Principal Investigator certified by the Register of Professional Archaeologists (RPA) (qualifications derived from 36 CFR Part 61). Ground-disturbing activities include, but are not limited to, pavement/asphalt removal, boring, trenching, grading, excavating, and the demolition of building foundations. The archaeological monitor will observe ~~representative~~ ground-disturbing activities in these locations to a depth of 3 feet. A preconstruction information and safety meeting shall~~ould~~ be held to make construction personnel aware of archaeological monitoring procedures and the types of archaeological resources that might be encountered. In the event that archaeological resources are encountered during archaeological monitoring, the monitor may halt work in the immediate vicinity until the discovery is assessed by the project archaeologist and appropriate treatment is determined. Additional monitoring recommendations may be made at that time. If archaeological resources are encountered by construction personnel in portions of the	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		project area where a monitor is not present, work in the immediate vicinity shall be suspended until the project archaeologist investigates the discovery and determines appropriate treatment. In the event that human remains are discovered, work in the immediate vicinity of the discovery will be suspended and additional measures will be implemented as required by state law. ~~Prior to the commencement of construction activities, a Cultural Resources Discovery Plan shall be prepared describing treatment methods that will be implemented in the event archaeological resources are discovered during construction. The Discovery Plan may be part of the Historic Properties Treatment Plan (HPTP).~~ Upon completion of all ground-disturbing activities associated with this project, an Archaeological Resources Monitoring Report shall be prepared documenting construction activities observed, including copies of all daily archaeological monitoring logs. If discoveries are made during ground-disturbing activities, the report will also document the associated cultural materials and the methods of treatment as determined appropriate by the archaeologist.	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
Implementation of the proposed project would result in impacts to a proposed California Register–eligible archaeological resource, the Santa Monica Air Line.	All LRT: S	**MM CUL-2** Per CEQA Guidelines Section 21083.2(c), mitigation measures shall be required if unique archaeological resources are not preserved in place or not left in an undisturbed state. When this is not feasible, Section 15126.4(b)(3)(C) warrants a data recovery plan, "which makes provisions for adequately recovering scientifically consequential information from and about the historical resource," and "shall be prepared and adopted prior to any excavation being undertaken." The Expo Authority shall prepare such a plan to identify measures to reduce the project's impacts to the Santa Monica Air Line a California Register–eligible resource.~~If it is determined from the SHPO consultation process that there will be adverse effects to California Register- eligible resources, including the Santa Monica Air Line segment, an MOA shall be prepared in consultation with the SHPO. MOA would define the actions of the in implementing the project. The Expo Authority shall prepare a HPTP to identify measures to reduce the project's adverse effects to significant cultural resources, including the Santa Monica Air Line segment. The HPTP will be submitted to the SHPO as part of the MOA consultation and may be appended to the MOA for reference~~	All LRT: LTS
Implementation of the proposed project could result in a physical take of a portion of an eligible historic	LRT 3 & 4: S	**MM CUL-3** ~~If it is determined from the SHPO consultation process that there will be adverse~~	LRT 3 & 4: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
architectural resource, the Citizens State Bank at 10341 Venice Boulevard, and this would constitute a direct impact. A portion of the parcel could be acquired for the project, requiring alterations to the building itself. This impact could be avoided by selection of LRT Alternatives 1 or 2, or installation of a custom curb return and ramp.	LRT 1 & 2: NI	~~effects to California Register- eligible resources, including the Citizens State Bank at 10341 Venice Boulevard, an MOA shall be prepared in consultation with the SHPO. The MOA would define the actions of the Expo Authority in implementing the project. The Expo Authority shall prepare a HPTP to identify measures to reduce the project's adverse effects to significant cultural resources. The HPTP will be submitted to the SHPO as part of the MOA consultation and may be appended to the MOA for reference.~~Per CEQA Guidelines Section 15126.4(b)(1), where actions on a historical resource will be "conducted in a manner consistent with the *Secretary* of ~~*effect to the SHPO*~~*the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring,* and ~~*seek concurrence. If it is determined that this effect is*~~ *Reconstructing Historic Buildings* (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance." Substantial adverse~~, a MOA to define how effects will be addressed would be needed under provisions of the CRHR~~ change to the California Register–eligible resource the Citizens State Bank at 10341 Venice Boulevard including physical destruction,	LRT 1 & 2: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		damage, or alteration will be avoided through a variance request to the City of Los Angeles. If that the variance is not granted and a substantial adverse change is unavoidable, mitigation shall include archival documentation to the level of Historic American Buildings Survey (HABS) standards through archival photography of the resource, to be submitted to local archives, although not requiring submittal to the Library of Congress. Although CEQA Guidelines 15126.4(b)(2) states: "In some circumstances, documentation of an historical resource… as mitigation for the effects of demolition of the resource will not mitigate the effects to a point where clearly no significant effect on the environment would occur," the additional measures of material salvage and the preparation of interpretative historical information about the historic architectural resource for public dissemination will collectively be considered adequate mitigation.	
Implementation of the proposed project may have an indirect impact on the setting of the historic Ivy Substation associated with the installation of aerial structures over Venice Boulevard in ~~Segment 1 (Expo ROW) and~~ Segment 1a (Venice/Sepulveda).	~~All~~ LRT 3 & 4: S LRT 1 & 2: NI	**MM CUL-4** ~~If it is determined from the SHPO consultation process that there~~Per CEQA Guidelines Section 15126.4(b)(1), where actions on a historical resource will be ~~adverse effects to~~"conducted in a manner consistent with the *Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic*	~~All~~ LRT 3 & 4: LTS LRT 1 & 2: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		Buildings (1995), Weeks and Grimmer, the project's impact on the historical resource shall generally be considered mitigated below a level of significance." Visual intrusion due to construction of an aerial structure in Segment 1a on the National and California ~~Register-eligible resources, including the~~ Registered Ivy Substation located at 9015 Venice Boulevard, ~~a MOA~~ shall be ~~prepared~~avoided by the Expo Authority ~~in consultation with the SHPO. The MOA would define the actions of the Expo Authority in implementing the project. The Expo Authority shall prepare a HPTP to identify measures~~through sensitive design per the Secretary of Interior's Standards to reduce the ~~project's adverse effects~~project impacts to a level of less than significant. If the Secretary of Interior's Standards are not met and an adverse visual intrusion is unavoidable, then mitigation shall include archival documentation to the level of Historic American Buildings Survey (HABS) standards through archival photography of the resource's setting prior to ~~significant cultural resources. The HPTP will~~ project construction, to be submitted to ~~the SHPO as part of the MOA consultation and may be appended to the MOA for reference.~~local archives, although not requiring submittal to the Library of Congress.	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
3.8 Geology, Soils, Seismicity			
Implementation of the proposed project could expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42; strong seismic groundshaking; seismic-related ground failure, including liquefaction; or landslides	All LRT: LTS	None	All LRT: LTS
Implementation of the project would not result in substantial soil erosion or the loss of topsoil.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project would not create or result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project would not create substantial risks to life or property. Portions of the proposed project may be located on expansive soil as defined in Table 18 1 A of the CBC (2001).	All LRT: LTS	None	All LRT: LTS
3.9 Hazards and Hazardous Materials			
The proposed project could routinely expose the public or the environment to hazardous materials during operational activities; however, compliance with federal, state, and local laws and regulations governing hazardous materials use, disposal, and emergency response would reduce health risks.	All LRT: LTS	None	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
The proposed project could create the potential for accident or upset of hazardous materials, however, adherence with existing BMPs and local, state, and federal regulation would limit the risk.	All LRT: LTS	None	All LRT: LTS
The proposed project would not emit hazardous emissions or handle hazardous materials, substances, or waste within ¼ mile of an existing or proposed school.	All LRT: LTS	None	All LRT: LTS
The proposed project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Compliance with all federal, state, and local laws and regulations would address any potential impacts.	All LRT: LTS	None	All LRT: LTS
The proposed project would be located within 1.2 miles of a public airport or public use airport, however, the project would not fall within the Airport Influence Area Map boundaries.	All LRT: NI	None	All LRT: NI
The proposed project would not physically interfere with an adopted emergency response or evacuation plan. Circulation changes associated with the project could affect emergency response or evacuation plans, however, compliance with all applicable local, state, and federal laws and regulations would address any potential impacts.	All LRT: LTS	None	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
The proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. The study area is fully developed and does not contain any known wildlands, or wildfire hazard areas.	All LRT: NI	None	All LRT: NI
3.10 Hydrology/Water Quality			
Implementation of the proposed project could increase the potential amount of pollutants in stormwater runoff that could cause or contribute to a violation of water quality standards. Compliance with regulatory requirements associated with hydrology and water quality would address any potential impacts.	All LRT: LTS	None	All LRT: LTS
Implementation of the project would not substantially degrade groundwater quality or interfere with groundwater recharge, or deplete groundwater resources in a manner that would cause water-related hazards, such as subsidence. Little new impervious area would be created by the LRT Alternatives.	All LRT: LTS	None	All LRT: LTS
Implementation of LRT Alternative 1 and 2 could substantially alter the existing drainage pattern of the site or area in a manner that would cause substantial localized flooding, or increase runoff that would contribute to exceedance of the capacity of stormwater drainage systems.	LRT 1 & 2: S LRT 3 & 4: LTS	**MM WQ-1** The Expo Authority shall grade the Expo/Westwood Station and associated station parking facility and provide a stormwater drainage system with detention facilities and/or pervious pavement adequate to convey runoff from the Expo/Westwood Station during a 100-year storm event to prevent on-site flooding. The Expo Authority shall also implement	LRT 1 & 2: LTS LRT 3 & 4: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		stormwater detention facilities and/or pervious pavement for parking lots to reduce the off-site peak runoff from the Expo/Westwood Station and associated parking lots to existing condition levels. All detention facilities shall be designed to drain within 48 hours to minimize vector control and human safety concerns. The Expo Authority shall include these facilities and their design specifications in the engineering plans. Use of pervious pavement shall be consistent with the SUSMP and Municipal NPDES Permit limitations on infiltration BMPs. Construction and operation of these BMPs shall be incorporated as part of the proposed project and subject to all applicable existing regulatory requirements.	
Implementation of the LRT Alternatives could increase drainage in excess of existing or planning stormwater drainage system capacity, however, implementation of the BMPs and MM WQ-1 would limit the risk.	~~All LRT: LTS~~ LRT 1 & 2: S LRT:3 &4: LTS	**MM WQ-1** listed above.	All LRT: LTS
Implementation of LRT Alternatives 1 and 2 may place structures within a 100-year flood hazard area that could impede or redirect flood flows, or otherwise expose people and/or property to water-related hazards, such as flooding.	LRT 1 & 2: S LRT 3 & 4: NI	~~**MM WQ-2(a)** The Expo Authority shall conduct a detailed topographic survey of the Segment 1 (Expo ROW) within the Federal Emergency Management Agency (FEMA)-defined 100-year flood hazard area, including Westwood Boulevard, and extending at least 50 feet beyond the proposed project ROW. The Expo Authority shall consult with the Los Angeles County Department of Public Works and/or FEMA to determine the current flood~~	LRT 1 & 2: LTS LRT 3 & 4: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		~~elevations within this area. The Expo Authority shall establish that the proposed facilities are at an elevation 2 feet greater than the highest adjacent grade and shall provide fill where needed to meet this requirement. The Expo Authority shall submit an application to FEMA for a Conditional Letter of Map Revision Fill (CLOMR-F) prior to construction and, following construction, a Letter of Map Revision (LOMR-F), removing the proposed project alignment from the FEMA 100-year flood hazard area.~~ ~~OR:~~ **MM WQ-2(b)** The Expo Authority shall design drainage and flood protection improvements to remove the portion of the LRT Alternative from the Federal Emergency Management Agency (FEMA)-defined 100-year flood hazard area. This shall include sufficient drainage structures to pass existing flood flow from areas up-gradient from the portion of the LRT Alternative to areas down-gradient, such that there is no net change in off-site flooding and flood flows or on storm drain system capacity. This may include rerouting of flood waters from Westwood Boulevard at locations further north from the portion of the LRT Alternative to bypass the alignment corridor and Westwood Boulevard intersection. Prior to the beginning of construction activities, the Expo Authority shall submit to FEMA an	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		application for and obtain a Conditional Letter of Map Revision (CLOMR) and shall implement all conditions imposed by FEMA. The CLOMR would ensure that the project design is sufficient for removing the portion of the LRT Alternative from the 100-year flood hazard area. Prior to the beginning of operation, the Expo Authority shall obtain a Letter of Map Revision (LOMR), and potentially a No Rise Certificate, indicating that construction and implementation of the designed improvements have been conducted in accordance with the CLOMR and FEMA requirements and that the proposed project alignment corridor has been effectively removed from the 100-year flood hazard area. Implementation of Segment 1 (Expo ROW) would use fill material, or place other structures (such as station platforms) in the floodplain, that could impede flood flows or reduce flood storage capacity. Therefore, MM WQ-2(b) shall not include use of fill material within an existing floodplain unless sufficient additional detention and flood storage is also provided. Any detention used as part of the flood improvements shall be designed to drain within 48 hours to minimize vector control and human safety issues. The Expo Authority shall include any facilities used for flood improvements and their design	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		specifications in the engineering drawings. As such, construction and operation of these facilities shall be incorporated as part of the proposed project and subject to existing regulatory requirements.	
3.11 Land Use/Planning			
Implementation of the proposed project would not result in a physical division of established communities.	All LRT: LTS	None	All LRT: LTS
Implementation of LRT Alternatives 1, 3 and 4 would conflict with certain policies identified in the Culver City General Plan and/or Santa Monica General Plan. However, the proposed project would help to achieve the goals of the Culver City and Santa Monica General Plans relative to transportation improvements.	LRT 1, 3, & 4: LTS LRT 2: NI	None	LRT 1, 3, & 4: LTS LRT 2: NI
Implementation of the proposed project would not result in an incompatibility with adjacent or surrounding land uses caused by degradation or disturbances that diminish the quality of a particular land use. Mitigation measures from Noise and Vibration and Aesthetics would minimize these impacts.	All LRT: LTS	**MM NOI-1** through **MM NOI-4**; and **MM AES-1** and **MM AES-2** listed below and above.	All LRT: LTS
3.12 Noise and Vibration			
The proposed project could expose the public to, or generate, noise levels in excess of standards established by the Federal Transit Administration (FTA) noise impact criteria during the operational phase.	All LRT: S	**MM NOI-1** Solid, impervious objects that block the direct path between the sound source and the receiver shall be installed at the proposed locations indicated in Table 3.12-10 to reduce the sound level at the receiver, with sound	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
*Note that the inclusion of a minimum 8- to 12-foot security wall and combination fence at the perimeter of the Maintenance Facility per M*etro Design Criteria* reduces noise impacts below FTA thresholds. As such, mitigation measure MM NOI-5 is no longer required.		walls being the preferred option. Sound walls are a common noise mitigation measure and have been widely used on highways and on rail transit lines. Alternatively, the Expo Authority may construct a landscaped berm parallel to the rail line or use low berms with a low wall along the top. As long as the wall, berm, or berm/wall combination reaches the same elevation, the acoustical performance will be equivalent. Except where noise impacts are due to special trackwork at crossovers and turnouts, the predicted noise impact can be eliminated with sound walls or berms that extend to heights of: • 6 to 8 ft above the top of rail for ballast and tie track sections • 3.5 to 4 ft above the top of rail on aerial structures The wall heights can be reduced by 6 to 12 inches if an acoustically absorbent surface treatment is used on the track side of the wall. A 7 to 9 dB reduction in operational noise can be expected in all locations where sound walls block direct lines of sight between the sound source and the receiver. This excludes receivers located in high-rise apartment buildings. Additionally, in areas where crossovers would be located near sensitive receptors, low-impact	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		frogs may be either an alternative to sound walls or supplemental measure to sound walls. There are several different types of low-impact frogs that could be used. If during Final Engineering or Operations it is determined that measures described above are not practicable or do not provide sufficient noise mitigation, the Expo Authority or Metro, as appropriate, shall provide for sound insulation of residences and other noise-sensitive facilities as a another alternative that could be used. Sound insulation involves upgrading or replacing existing windows and doors, and weather stripping windows and doors. Installing a mechanical ventilation system may be needed so that windows do not need to be opened for ventilation. The mitigation measures will ensure that noise levels will be below the applicable FTA impact threshold for moderate noise impact. **MM NOI-2** The volume of crossing bells shall be reduced to within 5 dBA of the bottom of the CPUC-approved range. This step is sufficient to reduce the bell noise to below the applicable FTA impact thresholds. **MM NOI-3** If wheel squeal occurs that is sufficient to cause community noise levels that exceed the applicable FTA moderate impact thresholds, measures to reduce wheel squeal, such as rail or wheel lubrication, will be	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		considered by Metro. If, by the end of the first year of service, noise from wheel squeal cannot be reduced to below the FTA moderate noise impact thresholds, the noise mitigation measures discussed in measure MM NOI-1 would be applied to further reduce levels of wheel squeal so that the levels are below the FTA moderate impact thresholds. No additional mitigation is required. **MM NOI-4** Noise levels would be sufficient to warrant mitigation at ~~7~~4 of the 15 proposed TPSS sites; see Table 3.12-15. All noise impacts can be eliminated by ~~(1)~~ specifying a noise limit of 44 dBA at 50 ft from any part of the TPSS units that would be used at sites 1, 2, 3, ~~8, 10, 12,~~ and 4 ~~13 and (2) locating the TPSS units at sites 1 and 2 at a minimum of 20 ft from the closest residential land use~~. ~~**MM NOI-5** An 8- to 10-foot-high sound wall shall be installed along the southern property line of the Maintenance Facility. The wall height can be reduced to 6 to 8 feet high if the car wash and blowdown facilities are designed to generate lower noise levels than standard facilities. This can be achieved through the use of silencers on compressors and fans, minimizing openings on the south side of the blowdown and car wash buildings, and constructing the south walls of the facilities of masonry, brick, or wood studs with insulation in~~	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		~~the cavities instead of sheet metal.~~*	
The proposed project could expose the public to, or generate, groundborne vibration, groundborne noise levels, or vibration levels in buildings exceeding the FTA vibration impact criteria during the operational phase.	All LRT: S	**MM NOI-6** Further site-specific testing shall be performed during the ~~Preliminary Engineering~~ Final Design where potential for vibration impact has been identified. Where vibration impact is still predicted, the vibration energy transmitted into the ground shall be decreased by (1) use of low impact frogs to reduce the banging at special trackwork, and/or (2) installation of a resilient layer between the tracks and the ground. There are a number of different approaches to installing resilient elements in track to reduce vibration. Vibration-reducing design specifications for the track sections shall be determined in consultation with a qualified vibration scientist or engineer during the design phase. The specific locations where vibration mitigations are expected to be required are listed in Table 3.12-~~20~~24 (Anticipated Vibration Mitigation Locations). Final type, location, and extent of such mitigations will be determined in Final Design. The mitigation measures will be designed to ensure that vibration levels will be below the FTA impact threshold that is applicable to Detailed Vibration Assessments. The threshold for FTA Category 2 (residential) land uses is a band-maximum vibration level of 72 VdB at frequencies greater than 8 Hz.	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
The proposed project could cause a substantial permanent increase in ambient noise levels in the project vicinity.	All LRT: S	**MM NOI-1**, **MM NOI-2**, **MM NOI-3**, and **MM NOI-4**, ~~and **MM NOI-5**,~~ listed above	All LRT: LTS
The proposed project would not cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.	All LRT: LTS	**MM NOI-1**, **MM NOI-2**, **MM NOI-3**, **MM NOI-4**, ~~**MM NOI-5**~~, and **MM NOI-6** listed above	All LRT: LTS
The proposed project would not expose people residing or working in the project study area to excessive noise levels from a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.	All LRT: NI	None	All LRT: NI
The proposed project is not within the vicinity of a private airstrip, and, thus, would not expose people residing or working in the project site to excessive noise levels.	All LRT: NI	None	All LRT: NI
3.13 Paleontological Resources			
Implementation of the proposed project could disturb or destroy unique paleontological resources or sites.	All LRT: S	**MM PAL-1** Per CEQA Guidelines, ~~T~~the Expo Authority shall retain a qualified paleontologist to prepare and implement a Paleontological Resources Management Plan (PRMP) to the standards detailed in the *Paleontological Resources Technical Background Report*. Monitoring is required at the surface and below of Segment 1 (Expo ROW) from station 540+00 to 600+00, Segment 1a (Venice/Sepulveda) from station 615+00 to 635+00, Segment 3 (Olympic) from station	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		790+00 to 855+00, Segment 3a (Colorado) from station 830+00 to 855+00 where there are known surface exposures of Quaternary old alluvial fan deposits of high paleontological sensitivity. In other project areas, the paleontologist will examine subsurface work to adjust monitoring to cover Quaternary old alluvial fan sediments only. Upon completion of all monitoring and mitigation activities, the paleontologist will submit a final report to the Expo Authority summarizing the work and confirming that all recommendations were implemented.	
3.14 Parks and Community Facilities			
Implementation of the proposed project would not acquire or displace a community facility.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project may disrupt community facilities and services through a reduction in access to facilities or cause a substantial alteration of service areas.	All LRT: S	**MM PAR-1** For those community facilities that utilize on street parking, the Expo Authority shall provide reasonably proximate parking to replace permanently lost parking spaces based on the number of removed spaces that are utilized. Prior to construction of the proposed project, the Expo Authority ~~shall~~ has completed a parking demand study for affected community facilities to determine the appropriate amount of parking replacement that would be required. The location of the replacement parking would be in accordance	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		with the requirements listed in **MM TR-~~5~~ 6** through **MM TR-9(b)** in Section 3.2 (Transportation/Traffic)~~ listed above~~.	
The project would not require the expansion or construction of a new park or park facilities.	All LRT: LTS	None	All LRT: LTS
3.15 Safety and Security			
Implementation of the proposed project could create the potential for substantial adverse safety conditions, including station accidents, boarding and disembarking accidents, right-of-way accidents, collisions, fires, and major structural failures. However, compliance standard design criteria, operating safety procedures, and federal, state, and local safety regulations for the proposed project would address any potential impacts.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project could substantially limit the delivery of community safety services, such as police, fire, or emergency services, to locations along the proposed alignments.	All LRT: S	**MM SAF-1** ~~During~~ Prior to commencement of operation of the LRT Alternatives, Metro shall coordinate with the cities of Culver City, Santa Monica, and Los Angeles and inform the appropriate community safety provider of Metro's emergency response procedures as incorporated into Metro's standard operating procedures. Metro shall provide a detailed description of their emergency response procedures so as to provide other public safety providers with the knowledge of Metro's response plan in order to provide a fast, controlled and coordinated response to the various types of emergencies that may occur on the Metro rail system. Additionally, Metro	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		shall encourage the cities of Culver City, Los Angeles, and Santa Monica to update their emergency response procedures to address implementation of an LRT Alternative.	
Implementation of the proposed project would not create the potential for adverse security conditions, including incidents, offenses, and crimes. Safety features incorporated into the design of the project and various security provisions will address any potential impacts.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project could create the potential for increased pedestrian and/or bicycle safety risks. However, compliance with CPUC and Metro's design requirements would reduce the potential for such risk.	All LRT: LTS	None	All LRT: LTS
3.16 Socioeconomics			
Implementation of the proposed project could necessitate the acquisition of real property, and result in business and residential relocation. Compliance with the California Relocation Assistance Act will reduce this potential impact.	All LRT: LTS	None	All LRT: LTS
Implementation of the proposed project could displace substantial numbers of people and/or existing housing but would not necessitate the construction of replacement housing or create a demand that cannot be accommodated by existing housing stock. Compliance with the California Relocation Assistance Act will reduce this potential impact.	All LRT: LTS	None	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
Implementation of the proposed project would not terminate Metro's long term leases/licenses prior to their expiration date. If early terminations are required, compliance with the California Relocation Assistance Act will reduce this potential impact.	All LRT: LTS	None	All LRT: LTS
3.17 Energy Resources			
The proposed project would not lead to a wasteful, inefficient, or unnecessary usage of fuel or energy.	All LRT: B	None	All LRT: B
The proposed project would not result in a substantial increase in demand upon existing energy sources such that the capacity to provide the energy is approached or exceeded and would not require substantial additional capacity or the development of new energy sources.	All LRT: LTS	None	All LRT: LTS
4.0 Construction			
Transportation/Traffic			
The construction of the proposed project could result in the closure of one or more lanes of a major traffic-carrying street for an extended period of time during construction (one month or more). Major streets in the Expo Phase 2 corridor are defined in Section 3.2 (Transportation/Traffic).	LRT 2, 3 & 4: S LRT 1: NI	**MM CON-1** To ensure that continued vehicular access to community facilities is maintained, the Expo Authority shall provide at least one lane of traffic in each direction on access cross streets that are not going to be dead-ended during construction. If one lane of traffic cannot be maintained, the Expo Authority shall provide a detour route for motorists. **MM CON-2** Before the start of construction, Worksite Traffic Control Plans (WTCP) and Traffic Circulation Plans, including identification of detour requirements, will be formulated in	LRT 2, 3 & 4: LTS LRT 1: NI

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		cooperation with the City of Los Angeles, City of Santa Monica, Culver City and other affected jurisdictions (County, State) in accordance with the Work Area Traffic Control Handbook (WATCH) manual and Manual on Uniform Traffic Control Devices (MUTCD) as required by the relevant municipality. The WTCPs will be based on lane requirements and other special requirements defined by the Los Angeles City Department of Transportation (LADOT), the City of Santa Monica, and Culver City for construction within their city and from other appropriate agencies for construction in those jurisdictions. Also, the WTCP's shall be designed to maintain designated Safe Routes to School wherever possible during times of the year when nearby schools are in session. **MM CON-3** No designated Major or Secondary Highway will be closed to vehicular or pedestrian traffic except at night or on weekends, unless approval is granted by the jurisdiction in which it is located.	
Construction activities for the proposed project could result in the diversion of traffic through residential areas.	All LRT: S	**MM CON-2** Listed above. **MM CON-4** The Expo Authority's contractor will develop preferred haul route plans for the removal of excavated material. Construction will be scheduled and haul routes will be planned to minimize conflicts during school arrival and dismissal times. **MM CON-5** The Expo Authority will coordinate	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		with other major construction projects within a 1-mile radius of the construction site to avoid, to the maximum extent practicable, overlapping haul routes with other public or private construction projects.	
Construction activities for the LRT Alternatives could result in the long-term loss (three months or more) of parking or pedestrian access that is essential for continued operation of business during construction.	All LRT: S	**MM CON-6** Unless otherwise specified in the Wworksite Ttraffic Ccontrol Pplan, the Expo Authority shall maintain access to the businesses that rely on on-street parking and pedestrian access during construction. If it is necessary to temporarily restrict access to a business, the Expo Authority shall provide the facility advance notice of restrictions. Unless otherwise specified in the Wworksite Ttraffic Ccontrol Pplan, the Expo Authority shall schedule access restrictions to off-peak hours or during times when the business is closed and shall not fully restrict access for the total hours of operation of a business on any given day of operation. **MM CON-7** Relative to maintaining access to businesses, construction activities shall be sequenced to minimize the temporary removal of multiple blocks of on-street parking at one time unless otherwise specified by the Wworksite Ttraffic Ccontrol Pplan. **MM CON-8** Contractors shall use temporary special signage to inform the public of closure information in advance of temporary closures. Signage shall also provide special access	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		directions, if warranted.	
Aesthetics			
Implementation of the proposed project could substantially degrade the existing visual character or quality of the site and its surroundings for a portion of Segment 1 (Expo ROW) (LRT Alternatives 1 and 2) (i.e., the Sara Berman Greenway).	LRT 1 & 2: S LRT 3 & 4: NI	**MM CON-9** To the extent possible, the Expo Authority shall protect the Sara Berman Greenway during construction of Segment 1 (Expo ROW) (LRT Alternatives 1 and 2), including the placement of a construction barrier around the perimeter of the Greenway, and notifying contractors of restrictions. Substantial damage to the Greenway caused by construction activities shall be repaired as appropriate during or after the course of construction, which could include the provision of replacement landscaping.	LRT 1 & 2: LTS LRT 3 & 4: NI
Air Quality			
Peak construction activities associated with the proposed project could generate emissions that exceed SCAQMD thresholds. Compliance with SCAQMD Rule 403 would reduce this impact; however, SCAQMD thresholds would still be exceeded.	All LRT: S	~~None~~**MM CON-2**, **MM CON-3**, and **MM CON-4**, listed above.	All LRT: SU
The LRT Alternatives would result in a cumulatively considerable net increase of the criteria pollutant (NO_X) during construction activities for which the project region is classified non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors). Compliance with SCAQMD Rule 403 would reduce	All LRT: S	None	All LRT: SU

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
emissions, but not NO_X emissions to a level below the threshold of impact established by the SCAQMD.			
~~Construction activities associated with the LRT Alternatives would generate emissions that could result in an exceedance of localized significance thresholds (LST) established by the SCAQMD, and, therefore, could expose sensitive receptors to substantial pollutant concentrations. Implementation of Rule 403 BMPs would reduce localized pollutant levels for all regulated pollutants except PM_{10}. PM_{10} levels would still exceed the established thresholds.~~ ~~The contractor(s) would be required to employ best practices to minimize diesel emissions, but no feasible measures exist today that would achieve the standards on large construction projects.~~	~~All LRT: S~~	~~None~~	~~All LRT: SU~~
Construction ~~and operation~~ of the proposed project would not include elements that would be likely to create objectionable odors affecting a substantial number of people.	All LRT: LTS	None	All LRT: LTS
Global Climate Change			
Construction of the LRT Alternatives would consist of temporary activities that would not result in long-term greenhouse gas emissions.	All LRT: ~~NI~~LTS	None	All LRT: ~~NI~~LTS
Biological Resources			
Implementation of the proposed project could result in an impact on MBTA protected species and/or avian species protected under Section 3503 of the Fish and Game Code.	All LRT: S	**MM CON-10** During construction of the proposed project, the removal of trees, shrubs, or weedy vegetation should be avoided during the February 1 through August 31 bird nesting	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		period. If the removal of trees, shrubs, or weedy vegetation were to occur during the nesting period, a survey for nesting birds shall be conducted by a qualified wildlife biologist no earlier than 14 days prior to the removal of trees, shrubs, grassland vegetation, buildings, or other construction activities. Survey results shall be valid for 21 days following the survey. The area surveyed should include all construction areas with the potential to support nesting birds protected by the MBTA and/or Section 3503 of the *Fish and Game Code*, as well as areas within 75 feet of the boundaries, as practicable or as determined by the biologist in the field, of the areas to be cleared or as otherwise determined by the biologist. If no vegetation or tree removal is proposed during the nesting period, no surveys would be required. In the event that an active nest is discovered in the areas to be cleared, or in other habitats within 75 feet of construction boundaries, clearing and construction should be postponed within this area for at least two weeks or until a wildlife biologist has determined that the young have fledged (left the nest), the nest is vacated, and there is no evidence of second nesting attempts. Other buffers or construction requirements may be determined by the wildlife biologist in the field as practicable.	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
Geology, Soils and Seismicity			
Implementation of the project would not result in substantial soil erosion or the loss of topsoil.	All LRT: LTS	None	All LRT: LTS
Hazards and Hazardous Materials			
The project could create the potential for upset or accident conditions during construction activities that could release hazardous materials; however, compliance with federal, state, and local laws and regulations governing hazardous materials use, disposal, and emergency response, would reduce potential health risks.	All LRT: ~~LTS~~S	**MM CON-11** Prior to any ground disturbance or demolition, the Expo Authority shall: • Prepare an ~~preliminary~~ Eenvironmental Ssite Aassessment (ESA Phase II) for specific sites identified in the ESA Phase I prepared for the proposed project. The Phase IIs shall include soil sampling for contamination on sites where releases of hazardous materials are known and groundwater sampling where soil contamination is detected. Based on the age of structures identified along the alignment ~~the preferred LRT Alternative, which shall be submitted for review to the appropriate regulatory agency(s). The ESA shall evaluate, at a minimum, the potential for soil and groundwater contamination, as well as~~ the potential for exposure to mold, lead, and asbestos should also be studied. • If contaminated areas are identified within the construction area, the Expo Authority shall coordinate with the	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		appropriate regulatory agencies to determine the need for further investigation and/or remediation of the contaminated site. **MM CON-12** In the event that previously unknown or unidentified soil and/or groundwater contamination that could present a threat to human health or the environment during construction of the proposed project is encountered, construction activities in the immediate vicinity of the contamination shall cease immediately. If contamination is encountered, measures shall be prepared and implemented that (1) identifies the contaminants of concern and (2) describes measures to be taken to protect workers, and the public from exposure to potential site hazards. Such measures would include a range of options, including, but not limited to, physical site controls during construction, remediation, long-term monitoring, post-development maintenance or access limitations, or some combination thereof. Depending on the nature of contamination, if any, appropriate agencies shall be notified (e.g., City Fire Department). A Site Health and Safety Plan that meets Cal-OSHA requirements shall be prepared and in place prior to commencement of work in any contaminated area.	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
The construction of the proposed project would not physically interfere with adopted emergency response or evacuation plans.	All LRT: LTS	None	All LRT: LTS
Hydrology/Water Quality			
Implementation of the proposed project could increase the potential amount of pollutants in stormwater runoff that could cause or contribute to a violation of water quality standards. Compliance with regulatory requirements associated with hydrology and water quality would reduce these impacts.	All LRT: LTS	None	All LRT: LTS
Implementation of the project would not substantially degrade groundwater quality or interfere with groundwater recharge, or deplete groundwater resources in a manner that would cause water-related hazards such as subsidence.	All LRT: LTS	None	All LRT: LTS
Land Use/Planning			
Implementation of the proposed project would result in the physical division of a community through temporary access restrictions.	All LRT: S	**MM CON-6** Listed above.	All LRT: LTS
Noise and Vibration			
The proposed project could expose the public to, or generate, noise levels in excess FTA noise impact criteria and Metro Design Criteria during the construction phase.	All LRT: S	**MM CON-13** The Expo Authority's contractor shall develop a Noise Control Plan demonstrating how he will achieve the more restrictive of the Metro Design Criteria noise limits and the noise limits of the city noise control ordinance. The plan shall include measurements of existing noise, a list of the major pieces of construction equipment that	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		will be used, and predictions of the noise levels at the closest noise-sensitive receptors (residences, hotels, schools, churches, temples, and similar facilities). The Noise Control Plan will need to be approved by the Expo Authority prior to initiating construction. Where the construction cannot be ~~pr~~erformed in accordance with the requirements of the Metro or applicable city noise limits, the contractor shall investigate alternative construction measures that would result in lower sound levels. The contractor shall conduct noise monitoring to demonstrate compliance with contract noise limits. **MM CON-14** The contractor shall utilize a combination of the following options of best management practices for noise abatement to comply with the Metro Design Criteria: • The contractor shall utilize specialty equipment equipped with enclosed engines and/or high-performance mufflers as commercially available. • The contractor shall locate equipment and staging areas as far from noise-sensitive receptors as possible. • The contractor shall limit unnecessary idling of equipment. • The contractor shall install temporary noise barriers as determined by the	

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		Noise Control Plan. • The contractor shall reroute construction-related truck traffic away from residential streets to the extent permitted by the relevant municipality. • The contractor shall avoid impact pile driving near noise-sensitive receptors (residences, hotels, schools, churches, temples, and similar facilities) where possible. Where geological conditions permit their use, drilled piles or a vibratory pile driver is generally quieter.	
The proposed project could expose the public to, or generate, groundborne vibration, groundborne noise levels, or vibration levels in buildings exceeding the FTA vibration impact criteria during the construction phase; however, compliance with applicable regulations governing construction vibration would reduce construction-related vibration.	All LRT: LTS	None	All LRT:LTS
Parks and Community Facilities			
Implementation of the proposed project may disrupt community facilities and services through a reduction in access to facilities or cause a substantial alteration of service areas.	All LRT: S	**MM CON-1** Listed above. **MM CON-15** Unless otherwise specified in the Wworksite Ttraffic Ccontrol Pplan, the Expo Authority shall maintain vehicular and pedestrian access to the identified community facilities (refer to Table 4.6-9-4 [Access, Parking, and Service Area Impacts on Community Facilities]) during construction. If it	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		is necessary to temporarily restrict access to a community facility, the Expo Authority shall provide the facility notice of any restriction. Unless otherwise specified in the Wworksite Ttraffic Ccontrol Pplan, the Expo Authority shall schedule access restrictions to off-peak hours or during times when the community facility is closed and shall not restrict access for the total hours of operation of a community facility on any given day of operation. **MM CON-16** Near the identified community facilities construction activities shall be sequenced to minimize the temporary removal of multiple blocks of on-street parking at one time unless otherwise specified by the Wworksite Ttraffic Ccontrol Pplan	
Safety and Security			
Implementation of the proposed project could substantially limit the delivery of community safety services, such as police, fire, or emergency services, to locations along the proposed alignments.	All LRT: S	**MM CON-17** The Expo Authority shall maintain access to all police and fire stations at all times during construction. **MM CON-18** During construction of the LRT Alternatives, the Expo Authority shall coordinate with the cities of Culver City, Santa Monica, and Los Angeles and inform the appropriate community safety provider of the construction emergency response procedures as incorporated into the Contractor's Systems Safety Program Plan. The Plan will include a detailed description of all emergency response procedures that shall be implemented by the	All LRT: LTS

Table 3.18-1 Summary of All Impacts and Proposed Mitigation for LRT Alternatives

Impact	Significance Before Mitigation by Alternative	Mitigation Measures	Significance After Mitigation by Alternative
		contractor, so as to provide other public safety providers with the knowledge of the contractor's response plan in order to provide a fast, controlled, and coordinated response to the various types of emergencies. Additionally, the Expo Authority shall encourage the cities of Culver City, Santa Monica, and Los Angeles to update their emergency response procedures to address construction of the LRT Alternatives.	
Socioeconomics			
Construction of the proposed project could disrupt a business for a period of three months or more.	All LRT: S	**MM CON-1**, **MM CON-2**, **MM CON-3**, **MM CON-13**, and **MM CON-14** listed above.	All LRT: LTS
Energy			
The proposed project would not lead to a wasteful, inefficient, or unnecessary usage of fuel or energy.	All LRT: LTS	None	All LRT: LTS

KEY:
NI = No Impact
B = Beneficial Impact
S = Significant or Potentially Significant Impact (before mitigation)
LTS = Less Than Significant (below threshold either before or after mitigation)
SU = Significant Unavoidable Impact (mitigation would not reduce to less than significant)