Access and security impacts would not change from those noted for the full BRT, except that the portion of the ROW between Woodman Avenue and Lankershim Boulevard would not be utilized. The on-street alignment is therefore judged to be compatible with surrounding neighborhood uses.

e. Minimum Operable Segment (MOS)

The impacts associated with the MOS would be the same as those noted for the Full BRT, but all impacts (except noise) between Owensmouth Avenue and Balboa Boulevard, and Woodman Avenue and Lankershim Boulevard would be eliminated. The project is judged to be compatible with the adjacent neighborhood.

4-3.3.3 Environmental Justice

This topic is required by NEPA only; hence, only NEPA language is used.

With the exception of the No Build Alternative, all other alternatives would improve transit service and therefore would benefit minority and low-income populations.

The data used to evaluate environmental justice impacts are stated in section 4-3.1d. Overall, the study area has a smaller minority population than the City of Los Angeles. The only part of the study area that approaches the City of Los Angeles in the size of its minority community is the Van Nuys/Oxnard Station Influence Area, which has a minority population of 58 percent. The same pattern holds true for average per capita income, and the number of people living below the poverty line. The population characteristics indicative of transit dependency are also generally higher in the City of Los Angeles than in the study area.

Based on the above-mentioned statistics, there is no minority, low-income, or transit-dependent target population in the project study area which is substantially higher than in the City of Los Angeles as a whole. In fact, in almost every demographic category analyzed for environmental justice issues, the population of the project study area had percentages equal to or often lower than the City of Los Angeles.

In addition, there is no evidence that the minority and low-income populations present in the entire study area are disproportionately located in areas directly adjacent to the ~~SP~~ MTA ROW, where the majority of the adverse effects associated with the proposed project (almost entirely temporary and associated with construction [see Section 5-4]) are likely to occur. These adverse effects would also be of equal magnitude along the entire corridor, and would not disproportionately affect a single area or group of areas along the corridor. Equally, no single type of adverse effect would disproportionately affect a minority or low-income community. This judgement is supported by the fact that no concerns regarding environmental justice or the racial, ethnic, or income characteristics of the affected population have been raised during the ongoing public outreach program (see Section 4-3.3a, below).

Once the San Fernando Valley East-West Transit Corridor is operating, the effect would be largely beneficial, in the form of improved access via public transit. Low-income and minority populations, particularly those living in close proximity to the corridor, would be beneficiaries.

Potential adverse operational effects such as noise and safety and security would be effectively mitigated for all users and nearby residents, including minority and low-income persons.

In light of the aforementioned facts, it is judged that no disproportionately high and adverse human health or environmental effects would occur to minority or low-income populations, within the meaning of Executive Order 12898.

a. Public Participation

Efforts have been and will continue to be made to ensure meaningful opportunities for public participation during the project development and review process. In May of 2000, two open house information sessions were held, one in the East Valley and one in the West Valley. Notification of these sessions was given two weeks in advance, through bilingual notices mailed to certain area residents, notices placed in newspapers, and through a press release. The purpose of these meetings was to receive comments from the community regarding their concerns and feelings about the San Fernando Valley East-West Transit Corridor, and to incorporate these comments in the environmental document. In addition, there have been ongoing meetings with stakeholders along the route in order to inform the community of the BRT alternative in the East-West Transit Corridor. No environmental justice concerns have been raised, pursuant to the executive order.

4-3.4 Mitigation Measures

4-3.4.1 Demographics

No mitigation is required.

4-3.4.2 Neighborhoods

For the No Build alternative, mitigation measures are not required.

For the TSM alternative, mitigation measures are not required.

D&N-1: For the BRT alternative, mitigation would be desirable in areas where the proposed alignment may permit new views into residential neighborhoods. This includes areas where the alignment does not follow the alignment of an existing roadway, and abuts residences that do not have sufficient landscaping to block views of the property and residential structure. The most effective mitigation would be to fill in the gaps in vegetation so that backyards and second stories are shielded from the alignment by trees or shrubs. This measure would eliminate new views created by the proposed alignment.

4-3.4.3 Environmental Justice

No mitigation is required.

4-4 COMMUNITY FACILITIES AND SERVICES

4-4.1 Existing Facilities and Services

Community facilities and services ~~which~~ that are located within ¼ mile of the proposed project or ~~their~~ whose service areas falls within ¼ mile of the proposed project are listed in Table 4-9 and shown on Figure 4-27.

4-4.1.1 Fire and Police Protection Services

Police protection services for the City of Los Angeles are provided by the Los Angeles Police Department (LAPD). The proposed project would be located entirely within the jurisdiction of the Valley Bureau of the LAPD. Three community police stations within the Valley Bureau would provide service in the proposed project area:

- North Hollywood Community Police Station
  11640 Burbank Boulevard
  North Hollywood
- Van Nuys Community Police Station
  6240 Sylmar Avenue
  Van Nuys
- West Valley Community Police Station
  19020 Vanowen Street
  Reseda

Fire protection services for the City of Los Angeles are provided by the Los Angeles Fire Department (LAFD). The proposed project would be located entirely within Division 3 of the LAFD and would be served by Battalions 10, 14, and 17. The fire stations that would potentially provide service in the proposed project area are:

- Fire Station 60
  5320 Tujunga Avenue
  North Hollywood
- Fire Station 102
  13200 Burbank Boulevard
  North Hollywood
- Fire Station 89
  7063 Laurel Canyon Boulevard
  North Hollywood

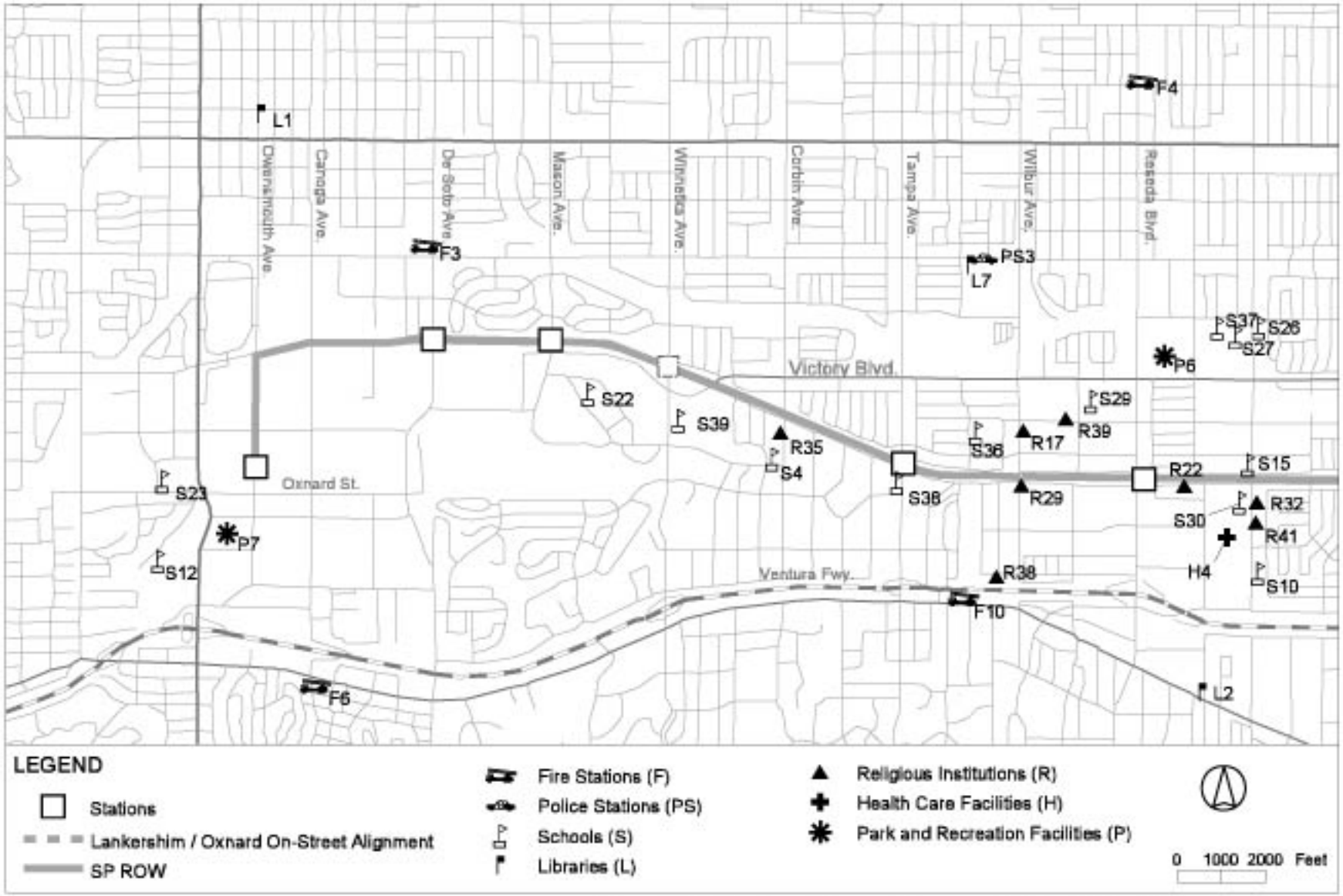


Figure 4-27(a): Locations of Community Facilities in the San Fernando Valley

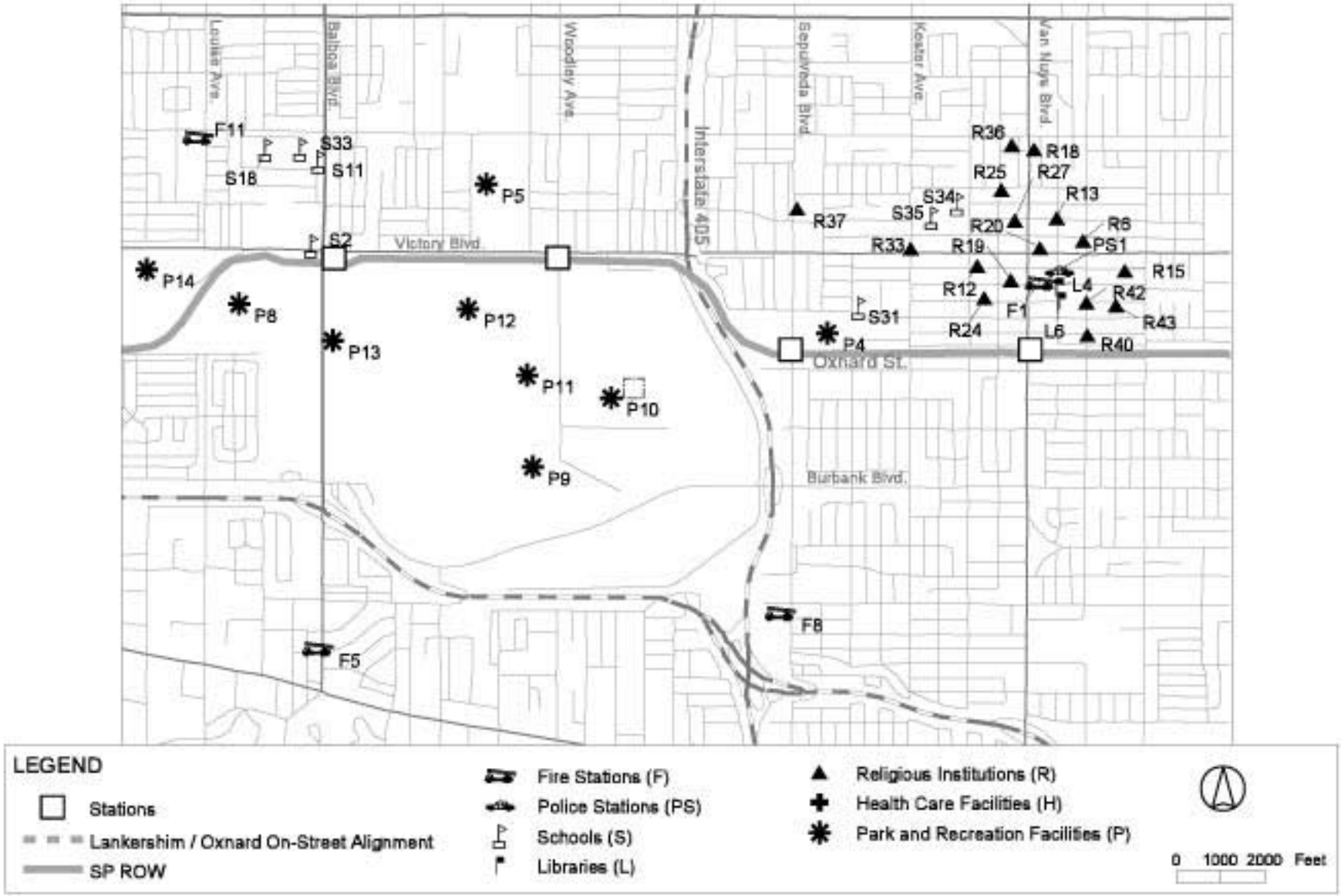


Figure 4-27(b): Locations of Community Facilities in the San Fernando Valley

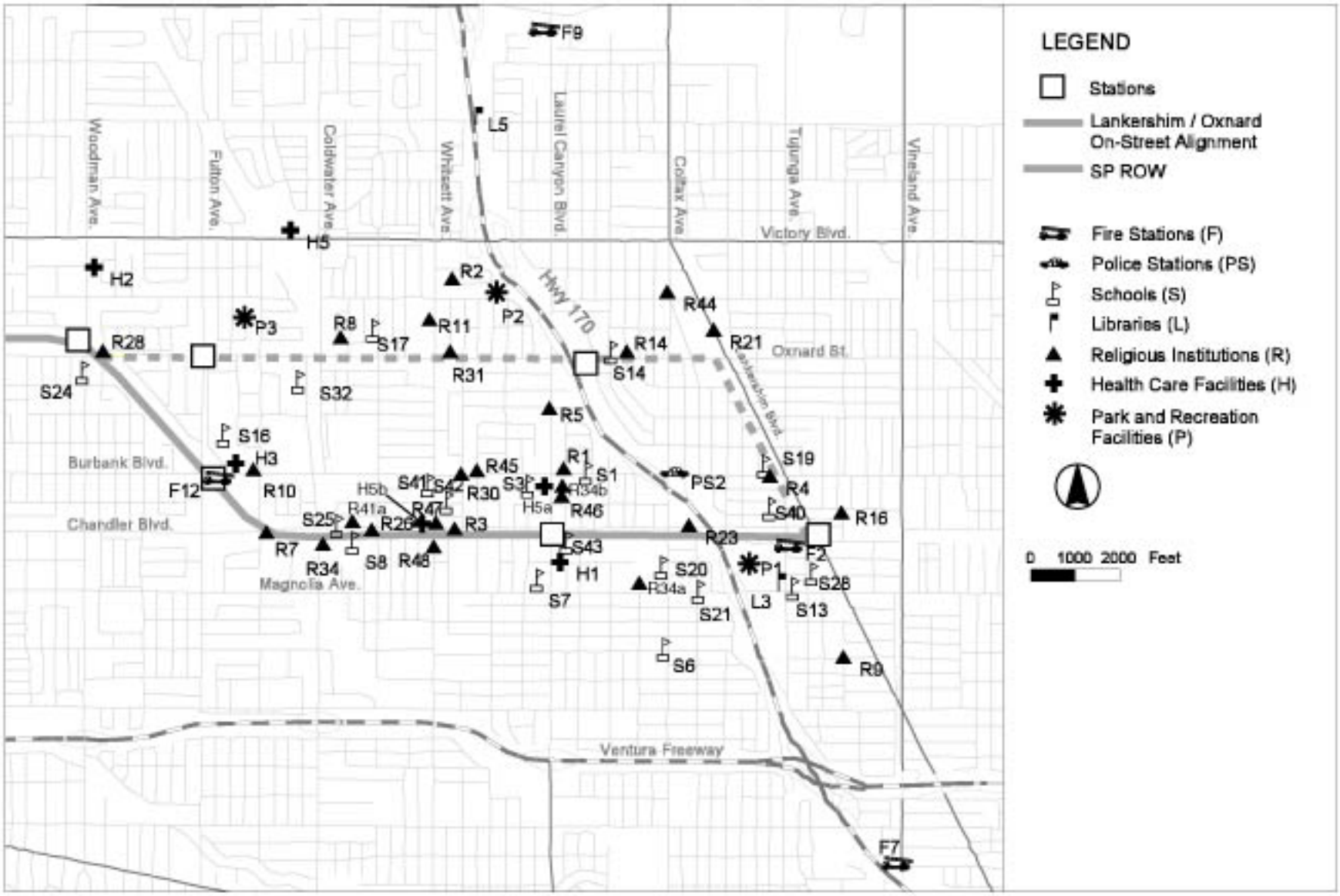


Figure 4-27(c): Locations of Community Facilities in the San Fernando Valley

Table 4-9: Community Facilities Located (or with Service Areas) within Study Area			
Type of Facility	**Map No.**	**Name of Facility**	**Location**
Fire Stations	F1	Fire Station #39	14415 Sylvan Street
	F2	Fire Station #60	5320 Tujunga Avenue
	F3	Fire Station #72	6811 De Soto Avenue
	F4	Fire Station #73	7419 Reseda Boulevard
	F5	Fire Station #83	5001 Balboa Boulevard
	F6	Fire Station #84	5340 Canoga Avenue
	F7	Fire Station #86	4305 Vineland Avenue
	F8	Fire Station #88	5101 North Sepulveda Boulevard
	F9	Fire Station #89	7063 Laurel Canyon Boulevard
	F10	Fire Station #93	19059 Ventura Boulevard
	F11	Fire Station #100	6751 Louise Avenue
	F12	Fire Station #102	13200 Burbank Boulevard
	F13	Fire Station #105	6345 Fallbrook Avenue
Police Stations	PS1	North Hollywood Police Station	11640 Burbank Boulevard
	PS2	Van Nuys Police Station	6240 Sylmar Avenue
	PS3	West Valley Police Station	19020 Vanowen Street
Schools	S1	Adat Ari El Day School	12020 Burbank Boulevard
	S2	Birmingham High School	17000 Hayes Street
	S3	Burbank Boulevard Elementary	12215 Albers Street
	S4	Calvert Elementary	19850 Delano Street
	S6	Colfax Avenue Elementary	11724 Addison Street
	S7	Country School	5243 Laurel Canyon Boulevard
	S8	Emek Hebrew Academy Pre-School	12732 Chandler Boulevard
	S9	Emelita Elementary School	17931 Hatteras Street
	S10	French American School	5657 Lindley Avenue
	S11	Independence Continuation School	6501 Balboa Boulevard
	S12	Kadima Hebrew Academy	5717 Rudnick Avenue
	S13	Lankershim Elementary	5250 Bakman Avenue
	S14	Laurel Hall School	6020 Radford Avenue
	S15	Lindley Avenue Baptist School	5901 Lindley Avenue
	S16	Los Angeles Valley College	5800 Fulton Avenue
	S17	Monlux Elementary	6051 Bellaire Avenue
	S18	Mullholland Middle School	17120 Vanowen Street
	S19	North Hollywood Christian School	5616 Farmdale Avenue
	S20	North Hollywood High School	5231 Colfax Avenue
	S21	Oakwood Secondary Private High School	11600 Magnolia Boulevard
	S22	Pierce College	6201 Winnetka Avenue
	S23	Pinecrest School	5975 Shoup Avenue
	S24	Pixieland School and Kindergarten	5944 Woodman Avenue
	S25	Valley Hillel School	Corner of Chandler and Alcove Avenue
	S26	Reseda High School	18230 Kittridge Street
	S27	Saint Paul's First Lutheran School	11330 McCormick Street
	S28	Sherman Oaks Center for Enriched Studies School of Choice	18605 Erwin Street
	S29	Stone Ridge Preparatory School	5955 Lindley Avenue
	S30	Sylvan Park Elementary	6238 Noble Avenue
	S31	Tarzana Elementary	5726 Topeka Drive
	S32	Ulysses Grant High School	13000 Oxnard Street
	S33	Valley Alternative School of Choice	6701 Balboa Boulevard
	S34	Van Nuys Senior High School	6535 Cedros Avenue
	S35	Vanalden Elementary	19019 Delano Street

Table 4-9: Community Facilities Located (or with Service Areas) within Study Area

Type of Facility	Map No.	Name of Facility	Location
Schools, cont.	S36	West Valley School	6649 Balboa Boulevard
	S37	West Valley Adult Occupational Training Center	
	S38	Woodcrest School	6350 Tampa Avenue
	S39	Zane Grey High School	6510 Etiwanda Avenue
	S40	Ameritech College	Lankershim Blvd & Cumpston
	S41	Happy Face Pre-School	Whitsett & Cumpston
	S42	Valley Bais Hedish	Chandler & Wilkinson
	S43	Valley Torah High School (under Construction)	12517 Chandler Blvd
Libraries	L1	Canoga Park Branch Library	7260 Owensmouth Avenue
	L2	Encino-Tarzana Branch Library	18231 Ventura Blvd
	L3	North Hollywood Library	5211 Tujunga Avenue
	L4	Superior Court Law Library	6230 Sylmar Avenue #107
	L5	Valley Plaza Library	12311 Vanowen Street
	L6	Van Nuys Branch Library	6250 Sylmar Avenue
	L7	West Valley Regional Library	19036 Vanowen Street
Religious Institutions	R1	Adat Ari El - Temple	12020 Burbank Boulevard
	R2	Adat Yeshuran Valley Sephardic Congregation	12405 Sylvan Street
	R3	Aish Hatorah	Southest corner of Chandler Blvd and Wilkenson Ave
	R4	Assemblies of God Church	11455 Burbank Boulevard
	R5	Bethany Foursquare Church	5853 Laurel Canyon Boulevard
	R6	Central Lutheran Church / Sheep Gate Evangelical Church	6425 Tyrone Avenue
	R7	Chabad of North Hollywood	13079 Chandler Boulevard
	R8	Cho Paul Ministries	6100 Goodland Avenue
	R9	Church of Christ Scientist	11145 Morrison Street
	R10	Church of Jesus Christ of Latter-day Saints	13042 Burbank Boulevard
	R11	Church of Religious Science	6161 Whitsett Avenue
	R12	Communidad Evangelica / Iglesia Prebiteriana Roca De / Van Nuys Presbyterian Nursery	14701 Friar Street
	R13	Community Bible Church / Iglesia Comunidad Biblica	14335 Hamlin Street
	R14	Emmanuel Lutheran Church	6020 Radford Avenue
	R15	First Korean United Methodist	14242 Sylvan Street
	R16	Fuente de Vida	11214 Cumpston Street
	R17	Grace Hungarian Reformed Church	18858 Erwin Street
	R18	Iglesia De Cristo	6736 Van Nuys Boulevard
	R19	Iglesia De Cristo Miel / Iglesia Getsemani Asamblea / World Harvest Street / Iglesia De Dios	14529 Sylvan Street
	R20	Iglesia De Restauracion	14350 Victory Boulevard #2
	R21	Iglesia Evangelica Bethel	6119 Lankershim Boulevard
	R22	Iranian Synogogue	18356 Oxnard Street
	R23	Jehovah's Witnesses	5440 Troost Avenue
	R24	Jehovah's Witnesses Van Nuys Congregation	14659 Erwin Street
	R25	Korean Church Of The Valley	14602 Kittridge Street

Table 4-9: Community Facilities Located (or with Service Areas) within Study Area			
Type of Facility	**Map No.**	**Name of Facility**	**Location**
Religious Institutions, cont.	R26	Kosher Information Bureau Kosher Hotline	12753 Chandler Boulevard
	R27	Mission Evangelica Hispana	14528 1/2 Hamlin Street
	R28	Namaste Interfaith Center	6020 1/2 Woodman Avenue
	R29	Ohel Rachel Synagogue	18750 Oxnard Street
	R30	Ohr Hatorah Synagogue	12410 Burbank Boulevard
	R31	Ohr Simcha Congregation	12436 Oxnard Street
	R32	Redeemer Orthodox Presbyterian/ St. Mary Assyrian Church	5955 Lindley Avenue
	R33	Salvation Army	14917 Victory Boulevard
	R34	Shaarey Zedek Congregation	12800 Chandler Boulevard
	R34a	St. David's Church	11605 Magnolia Avenue
	R34b	David Familian Chapel	Laurel Canyon Boulevard
	R35	St. John's Lutheran Church	6220 Corbin Avenue
	R36	Summit Lighthouse Study Group	14549 Archwood Street
	R37	Tara Center	6536 Sepulveda Boulevard #4
	R38	Tarzana Baptist Chapel	5701 Topeka Drive
	R39	Trinity Chapel/Fountain Spring Foursquare Church	18730 Erwin Street
	R40	United Pentacostal Church/Iglesia de Dios 7 Dia Buenas Nuevas	6150 Tyrone Avenue
	R41	Valley Baptist Church/ Lindley Church & Academy	5901 Lindley Avenue
	R41a	Valley Jewish Learning Center	12800 Chandler Boulevard
	R42	Van Nuys First Korean United Methodist Church Korean United Methodist	6260 Tyrone Avenue
	R43	Van Nuys Korean United Methodist Church	14255 Erwin Street
	R44	Victory Center Church of Christ	6226 Colfax Avenue
	R45	Valley Cities Jewish Community Center	13164 Burbank Boulevard
	R46	Familian Family Chapel	Laurel Canyon Blvd & Albers St
	R47	Toras Hashem	Chandler Blvd & Whitsett
	R48	Yad Avraham (under construction)	Chandler Blvd & Whitsett
Health Care Facilities	H1	Chandler Convalescent Hospital and Residential Care Facility	5335 Laurel Canyon Boulevard
	H2	Crossroads School	6305 Woodman Avenue / 6843 Lennox Ave
	H3	H.E.L.P. Group	13130 Burbank Boulevard
	H4	Hollywood Community Hospital of Van Nuys	14433 Emmelita Street
	H5	Laurelwood Convalescent Hospital	13000 Victory Boulevard
	H5a	Laurel Canyon Retirement Community	5527 Laurel Canyon Boulevard
	H5b	Royal Bellingham Retirement Home	12229 Chandler Boulevard
	H6	Kaiser Foundation Hospital-Woodland Hills	5601 De Soto Avenue
	H7	Encino-Tarzana Regional Medical Center	18321 Clark Street

Table 4-9: Community Facilities Located (or with Service Areas) within Study Area

Type of Facility	Map No.	Name of Facility	Location
Parks or Recreational Facilities	P1	North Hollywood Park / Recreation Center	5301 Tujunga Avenue
	P2	Valley Plaza Park	12200 Erwin Street
	P3	Erwin Park	13100 Erwin Street
	P4	Delano Park	15100 Erwin Street
	P5	Van Nuys Golf Course	6550 Odessa Avenue
	P6	Reseda Park / Recreation Center	18411 Victory Boulevard
	P7	Warner Ranch Park	5800 Topanga Canyon Boulevard
	P8	Sepulveda Basin Recreation Area and Wildlife Reserve	6100 Woodley Avenue
	P9	Sepulveda Basin Cricket Fields	6300 Woodley Avenue
	P10	Japanese Gardens	6300 Woodley Avenue
	P11	Woodley Avenue Park	6350 Woodley Avenue
	P12	Woodley Lakes Golf Course	6331 Woodley Avenue
	P13	Anthony C. Beilensen (Lake Balboa) Park	6200 Balboa Boulevard
	P14	Little League Complex	17000 Oxnard Street

Source: Myra L. Frank & Associates, Inc., 2000.

- Fire Station 39
  14415 Sylvan Street
  Van Nuys
- Fire Station 88
  5101 Sepulveda Boulevard
  Sherman Oaks
- Fire Station 83
  5001 Balboa Boulevard
  Encino
- Fire Station 100
  6751 Louise Avenue
  Van Nuys
- Fire Station 73
  7419 Reseda Boulevard
  Reseda
- Fire Station 93
  19059 Ventura Boulevard
  Tarzana
- Fire Station 72
  6811 De Soto Avenue
  Warner Center

- Fire Station 84
  5340 Canoga Avenue
  Warner Center
- Fire Station 105
  6345 Fallbrook Avenue
  Woodland Hills

4-4.1.2 Schools and Libraries

The Los Angeles Unified School District (LAUSD) serves the City of Los Angeles, all or portions of 16 other cities in Los Angeles County, and numerous unincorporated areas surrounding the City of Los Angeles, comprising an area of approximately 700 square miles.

As of Fall of 1999, LAUSD's total K-12 enrollment was an estimated 711,187 students. Approximately 41 percent attended the middle/junior and high school levels, and 8 percent attended magnet schools and centers throughout the District (See Table 4-10).

Table 4-10: LAUSD K-12 Enrollment, Fiscal Year 1999/2000

Grade Level	1999/2000 Enrollment	Percent of Total
Senior High School	151,030	21%
Middle Schools	139,249	20%
Elementary School	363,029	51%
Magnet Schools, Centers, and Other Facilities	57,879	8%
Total (K-12) Enrollment	711,187	100%

Source: LAUSD Enrollment Statistics, 1999/2000

The schools, public and private, located within ¼ mile of the proposed bus alternatives and alignments are listed in Table 4-9. The TSM, BRT, and MOS would be adjacent to two LAUSD schools (North Hollywood and Birmingham High Schools) and ~~three~~ six non-LAUSD schools (Emek Hebrew Academy, Los Angeles Valley College, ~~and~~ Pierce College, Woodcrest School, Valley Torah High School, and Valley Hillel School). The Lankershim/Oxnard On-Street Alignment would be adjacent to two LAUSD schools (Ulysses Grant High School and Birmingham High School) and three non-LAUSD schools (Laurel Hall School, Los Angeles Valley College, and Pierce College).

Libraries in the vicinity of the proposed alternatives and alignments are managed by the East Valley and West Valley regional offices of the Los Angeles Public Library. One library, the Van Nuys Branch Library at 6250 Sylmar Avenue, is located approximately 0.3 miles from the proposed bus alignments. The North Hollywood Regional Library at 5211 Tujunga Avenue, is located approximately 0.2 miles from the proposed bus alignments.

4-4.1.3 Parks and Recreational Facilities

A total of 14 parks or recreational facilities are located within the study area (See Table 4-9). Nearly all of these facilities are operated by the City of Los Angeles Department of Recreation and Parks. The Sepulveda Basin Wildlife Reserve is managed by the City of Los Angeles Department of Recreation and Parks with the assistance of an advisory board composed of representatives of the Audubon Society, Canada Goose Project, California Native Plant Society, Friends of the L.A. River, Resource Conservation District of the Santa Monica Mountains, and Sierra Club.

The City of Los Angeles Bike Plan (1996) identifies a total of fifteen existing or planned bikeways located in the study area. The bikeways are a part of the transportation system, but are also assumed to serve a recreational purpose.

Additional information on parks and recreational facilities is provided in Section 4-15 (Draft Section 4(f) Evaluation).

4-4.2 Impact Analysis Methodology and Evaluation Criteria

Community facilities and services adjacent to each alternative of the project were identified during field surveys using conceptual engineering plans. The locations and types of facilities adjacent to the proposed alternatives and alignments were mapped and tabulated, and a qualitative assessment of the project's impact to each facility was made. The potential impacts resulting from the project would vary depending upon the characteristics and proximity of the alternative or alignment selected. These impacts would be considered adverse impacts under NEPA (significant impacts under CEQA) if: (1) community service facilities were to be acquired or (2) the use of facilities would be substantially impaired as a result of impacts such as noise, air quality, safety, or impaired access.

Facilities that are within private residences or that do not provide public signage are not listed. However, it is recognized that many facilities exist within the ¼-mile study area and these are subject to the same impacts as the listed facilities. The same mitigation measures apply to all facilities and services.

4-4.3 Impacts on Community Facilities and Services

4-4.3.1 Fire and Police Protection

Potential impacts to police and fire protection services from the proposed build alternatives would be related to the effects of traffic and access disruptions on emergency response time, and the demand for additional services.

The response time for emergency services depends in part on the distance from police and fire stations to the areas served. The LAFD's minimum distance criteria for availability of first-due

emergency fire response is 0.75 mile for an engine company and 1 mile for a truck company. The fire stations identified in the vicinity of the proposed project are within this range and are evenly distributed along the length of the study area.

Traffic congestion on local streets, particularly at intersections, may also affect emergency response times. The LAFD considers intersections that operate at level of service (LOS) E or F (i.e., 90 percent of capacity or greater) as limiting factors on fire protection and emergency services. According to traffic analyses of the proposed project, 13 of 53 intersections studied would operate at LOS E or worse in 2020 under the No Build or TSM Alternative. For the Full BRT Alternative, a total of 17 of 53 study intersections would operate at LOS E or worse in 2020. For the Lankershim/Oxnard On-Street Alignment, 17 of 53 study intersections would operate at LOS E or worse in 2020. For the MOS, 14 of 53 study intersections would operate at LOS E or worse in 2020.

Potential access disruptions could also affect emergency response times. The TSM Alternative would have no substantial effect on access to and from police and fire stations since the only change from existing conditions would an slight increase in the number and frequency of buses in mixed-flow traffic. For the build alternatives, two fire stations, Fire Station 60 and Fire Station 102, are located immediately adjacent to portions of the ~~SP~~ MTA ROW that would be utilized for the full BRT Alternative. No police stations are located adjacent to any of the build alternative alignments. Only incidental disruption to access in and out of these stations would be likely to occur in the rare event that buses were passing the station at the same time as an emergency call. In addition, station platforms and park and ride lots would be designed and sited in a way that avoids conflicts between busway patrons' access and emergency services' access. These types of potential access disruptions would be further minimized through adequate planning and consultation with the LAFD. There is a very low likelihood that emergency services' access across the corridor would be substantially impaired once a busway is operational. The buses would travel primarily on an exclusive right-of-way and, as described more fully in the transportation and traffic analysis in Chapter 3, would be subject to the same signalized intersections at cross streets as is traffic on the parallel streets. Thus, the ability of emergency service vehicles to cross the corridor should not be substantially different than at present.

Existing and planned service levels for fire protection and police protection are expected to be adequate with or without the proposed project.

4-4.3.2 Schools and Libraries

a. Schools

The TSM Alternative would result in an increase in the number of buses in service and would, thus, improve transit access to schools and libraries along the proposed bus routes. This would have a beneficial effect.

The proposed BRT Alternative and alignments would not result in increased student enrollment in the vicinity of the project, since it would not result in increased residential population. Thus, school student capacities would be unaffected by the project. However, other impacts may occur due to the project's proximity to individual schools along the proposed routes.

Schools located within ¼ mile of the proposed bus alternatives and alignment would have safety concerns for students walking to and from school. These safety issues, and schools affected by the project, are addressed in Section 4-13 Safety and Security.

As discussed in Section 4-9, potential noise impacts could occur at schools adjacent to the proposed bus alternatives and alignments due to buses being located at-grade. The TSM Alternative would add buses in mixed-flow traffic on many arterials in the street system, which would marginally increase noise levels at some schools. With regard to North Hollywood High School, Birmingham High School, Los Angeles Valley College, and Emek Hebrew Academy, under the BRT Alternative, it is projected that a minor impact (on the order of a one decibel increase–not requiring mitigation) would be experienced at North Hollywood High School and Emek Hebrew Academy, that no impact would be experienced at Birmingham High School, and that no impact would be experienced after mitigation at Valley College. (At Valley College there would likely not be an impact on classrooms due to sufficient separation distances, but soundwall noise barriers are proposed on the diagonal portion of the corridor to mitigate noise impacts on adjacent homes.) The Lankershim/Oxnard On-Street Alignment would result in only a marginal increase in noise levels (see Section 4-2) at adjacent schools. The MOS alignment would not affect noise at adjacent schools.

Accessibility to schools within ¼ mile of the proposed alternatives and alignments would be improved due to the new transit routes.

❑ TSM Alternative

The TSM alternative would utilize existing bus stops and accessibility to adjacent schools would increase due to the increased transit service under this alternative. Students who need to walk a certain distance from the nearest bus stop would continue to use the same intersection crossings. The TSM alternative would have no adverse impacts under NEPA (significant impacts under CEQA) on access to these schools.

❑ BRT Alternative

The BRT alternative would be adjacent to the following schools:

- Pierce College at 6201 Winnetka Avenue
- Birmingham High School at 17000 Hayes Street
- Los Angeles Valley College at 5800 Fulton Avenue
- Emek Hebrew Academy at 12732 Chandler Boulevard
- North Hollywood High School at 5231 Colfax Avenue

- Woodcrest School at 6350 Tampa Avenue
- Valley Torah High School at 12517 Chandler Boulevard
- Valley Hillel School at corner of Chandler Boulevard and Alcove Avenue

Pierce College students using the BRT would have a bus stop at either Mason Avenue or Winnetka Avenue and would gain access to the college across the Victory Boulevard and Mason Avenue intersection or the Victory Boulevard and Winnetka Avenue intersection. Students walking to or from the college from north of Victory Boulevard would have to cross the BRT corridor at either Mason Avenue or Winnetka Avenue. Mason Avenue and Winnetka Avenue are the only existing cross streets for pedestrian access to Pierce College and, therefore, walking distances would not be lengthened for the community college students.

Birmingham High School students utilizing the BRT would have a bus stop at the Balboa Boulevard and Victory Boulevard intersection (south side of Victory Boulevard) and students would access the school via this intersection crossing. Students walking to or from the south side of Victory Boulevard would need to walk across the BRT corridor on Balboa Boulevard and then across the Victory Boulevard and Balboa Boulevard intersection. This would not substantially lengthen walking time to and from the school and would not have an adverse impact under NEPA (significant impact under CEQA).

Students of Los Angeles Valley College arriving from the west utilizing the BRT would have a bus stop on the southeast corner of Burbank Boulevard and Fulton Avenue. Students arriving from the east would have a bus stop on the northwest corner of Burbank and Fulton Avenue. Students would cross the corridor at the Burbank Boulevard and Fulton Avenue intersection. This would not substantially lengthen walking distances and, therefore, would have no adverse impacts under NEPA (significant impacts under CEQA) on student accessibility.

Emek Hebrew Academy Pre-School is located on the south side of Chandler Boulevard, east of Coldwater Canyon Avenue. Parents walking from the north side of Chandler Boulevard to pick up or drop off their pre-school children could walk to Coldwater Canyon Avenue or Bellaire Avenue to cross the alignment, or could use a new mid-block crossing at Goodland Avenue, which would improve access. These cross streets are currently the only signalized pedestrian crossings over Chandler Boulevard from the north and are used presently by parents with their children. In addition, new pedestrian pathways will be provided in areas where there are presently no sidewalks, thereby improving access for students. These pedestrian pathways would be provided on the north side of the busway in the median from Bellaire Avenue to Goodland Avenue, on the south side of the busway in the median from Coldwater Canyon Avenue to Ethel Avenue, and on the north side of Chandler Boulevard adjacent to the Chabad. The BRT would not create any additional blockages to the pre-school; therefore, walking distances would not be lengthened and no impacts to school access would result.

North Hollywood High School students using the BRT would depart at the Laurel Canyon bus stop, cross the corridor at Laurel Canyon Boulevard, and walk ½ mile east to the school. Students walking to the high school from the north side of Chandler Boulevard would need to walk to Laurel Canyon Boulevard or Colfax Avenue to cross the corridor. Laurel Canyon Boulevard and Colfax Avenue are the existing pedestrian crossings to the high school, and

therefore, the BRT would not lengthen walking distances to gain access to North Hollywood High School, and consequently the project would have no adverse impacts under NEPA (significant impacts under CEQA) on student accessibility.

Woodcrest School students using the BRT would have a bus stop at Tampa Avenue and would gain access to the school across the Tampa Avenue and Topham Street intersection. Students walking to or from the school from north of Topham Street would have to cross the BRT corridor at Tampa Avenue. Walking distances would not be lengthened for these students.

Valley Torah High School students using the BRT would have a bus stop at Laurel Canyon Boulevard and would gain access to the high school by crossing the BRT corridor at Laurel Canyon Boulevard and then travelling west along the south side of Chandler Boulevard. Students walking to or from the high school would have to cross the BRT corridor at Whitsett Avenue and then travel west one block to the high school. Walking distances would not be lengthened for these students.

Valley Hillel School students using the BRT would have a bus stop at Laurel Canyon Boulevard and would gain access to the school by crossing the BRT corridor at Laurel Canyon Boulevard and then travelling west along the south side of Chandler Boulevard. Students walking to or from the school would have to cross the BRT corridor at Coldwater Canyon Avenue and then travel east one block to the school. Walking distances would not be lengthened for these students.

❑ Lankershim/Oxnard On-Street Alignment

The Lankershim/Oxnard On-Street segment of the alignment would consist of three bus on-street stops: ~~(1) Metro Red Line North Hollywood Station~~ (~~2~~ 1) Oxnard Street and Laurel Canyon Boulevard, ~~and~~ (~~3~~ 2) Oxnard Street and Fulton Avenue, and Woodman Avenue and Oxnard Street. The Fulton Avenue/Oxnard stop is immediately adjacent to Los Angeles Valley College and within ¼ mile of Ulysses Grant High School. Students using this transportation route would utilize intersection crossings at Fulton Avenue or Coldwater Canyon Avenue to cross the transit corridor, which are currently the closest pedestrian crossings to both schools. Access would be improved to the Laurel Hall School, located on Oxnard Boulevard at Radford Avenue. Walking distances would not be substantially increased and therefore the BRT would not have an adverse impact under NEPA (significant impact under CEQA) on these schools. The remainder of the BRT Alignment would have effects identical to those discussed above.

❑ MOS

The MOS alignment would be adjacent to one school: Birmingham High School at 17000 Hayes Street. Birmingham High School students utilizing the MOS would have a bus stop at the Balboa Boulevard and Victory Boulevard intersection (south side of Victory Boulevard). Students would reach the school via the intersection crossing. Students walking to or from the south side of Victory Boulevard would need to walk across the MOS corridor on Balboa Boulevard an then across the Victory Boulevard and Balboa Boulevard intersection. This would

not substantially lengthen walking time to and from the school and would not have an adverse impact under NEPA (significant impact under CEQA).

b. Libraries

Eight libraries are located (or have service areas) within ¼ mile of the proposed alternatives or alignments. None of the libraries are located immediately adjacent to any of the alternatives or alignments, and therefore, there would be no adverse effect under NEPA (significant effect under CEQA) on access to the libraries. However, transit access to the North Hollywood Library, Van Nuys Branch Library, and the Superior Court Library (see Figure 4-27) would be improved by the BRT Alternative and the Lankershim/Oxnard On-Street Alignment, and therefore beneficial effects would result.

4-4.3.3 Religious Institutions

The TSM Alternative would result in an increase in transit service and would, thus, improve transit access to most religious institutions along the proposed bus routes. No adverse impacts under NEPA (significant impacts under CEQA) would be associated with the increased service.

Religious institutions adjacent to the BRT alternative include:

- St. John's Lutheran Church at 6220 Corbin Avenue
- Aish Hatorah at Southeast corner of Chandler Boulevard and Wilkenson Avenue
- Chabad of North Hollywood at 13079 Chandler Boulevard
- Jehovah's Witnesses at 5440 Troost Avenue
- Shaarey Zedek Congregation at 12800 Chandler Boulevard
- Ohel Rachel Synagogue at 18750 Oxnard Street
- Iranian Synagogue at 18356 Oxnard Street
- Namaste Interfaith Center at 6020½ Woodman Avenue
- Yad Avraham Sephardic Synagogue at Chandler Boulevard and Whitsett Avenue
- Valley Jewish Learning Center at 12800 Chandler Boulevard

St. John's Lutheran Church at 6220 Corbin Avenue and Jehovah's Witnesses at 5440 Troost Avenue are both located along streets where the bus corridor would be located on the opposite side of the roadway. The corridor would not interfere with accessibility to the religious institution, and could result in beneficial transit access. Therefore, these institutions would not experience adverse impacts under NEPA (significant impacts under CEQA) as a result of the BRT alternative.

~~Chabad of North Hollywood would potentially be a full acquisition under the BRT alternative and, therefore, impacts on this facility (under this alternative) are not addressed. For detailed information regarding acquisitions please see Section 4-2.~~ Currently, there are no sidewalks north and south of Chandler Boulevard near the Chabad of North Hollywood. Pedestrian access to the Chabad of North Hollywood would be improved as a new sidewalk would be constructed on the north side of North Chandler Boulevard adjacent to the Chabad and a new pedestrian path would be constructed in the median from Ethel Avenue to Coldwater Canyon Avenue. Pedestrians would continue to cross the MTA ROW at Ethel and Coldwater Canyon Avenues.

Walking time to and from the Chabad would not be substantially increased and therefore there would not be a significant impact under CEQA (adverse impact under NEPA) on access.

Pedestrian access to Aish Hatorah and Shaarey Zedek Congregation are of particular concern to the people along this segment of the BRT. Due to particular aspects of their religious faith, community members who attend these facilities would be able to utilize two new mid-block access routes (see Section 4-13 for detailed descriptions) that cross Chandler Boulevard (east and west bound) and the BRT corridor. These mid-block crossings would be placed at Goodland Avenue and Agnes Avenue. These crossings would provide two additional crossings for the communities north and south of Chandler Boulevard. Persons walking from the north side of Chandler Boulevard to Aish Hatorah or Shaarey Zedek Congregation would need to walk to a cross street between Coldwater Canyon Boulevard and Laurel Canyon Boulevard or use one of the two mid-block crossings. This would not substantially lengthen walking time to and from these institutions and therefore would not have an adverse impact under NEPA (significant impact under CEQA) on access. Members of Ohel Rachel Synagogue and the Iranian Synagogue walking to the religious institutions from the north side of Oxnard Street would need to walk to Reseda Boulevard to cross the bus corridor. Reseda Boulevard is currently the pedestrian crossing closest to both synagogues, therefore, walking distances would not be lengthened as a result of the BRT and consequently these religious facilities would experience no adverse impacts under NEPA (significant impacts under CEQA).

The Lankershim/Oxnard On-Street Alignment portion of the BRT would be adjacent to two religious institutions: St. John's Lutheran Church at 6220 Corbin Avenue and the Emmanuel Lutheran Church at 6060 Radford Avenue. St. John's Church is located on the south side of Topham Street, and the bus corridor is on north side. Therefore, the corridor would not block access to the church, and would actually increase transit access for those seeking to attend the facility. The Emmanuel Lutheran Church would be located along the On-Street segment of the transit way and would potentially benefit from the transit access. Both institutions were identified by the noise analysis as having no impacts from the proposed alignment (see Section 4-9, Noise and Vibration).

The exclusive right-of-way portion of the MOS alignment would not be located immediately adjacent to any religious institutions, and therefore, no adverse impacts under NEPA (significant impacts under CEQA) would be associated with the increased service.

4-4.3.4 Health Care Facilities

The TSM Alternative would result in an increase in transit service and would, thus, improve transit access to health care facilities along proposed bus routes. No adverse impacts under NEPA (significant impacts under CEQA) would be associated with the increased service.

The proposed alternatives and alignments (BRT, MOS, and Lankershim/Oxnard On-Street) would improve transit access and benefit health care facilities located in the vicinity of the alignment. Convalescent hospitals such as the Chandler Convalescent Hospital and Residential Care Facility and the Laurelwood Convalescent Hospital would particularly profit from the nearby transit facilities. ~~since a large number of the persons served by these hospitals may not be capable of driving.~~ Staff members and volunteers would have access to a convenient

transportation line to work and visitors (some of whom may not be able to drive) would have a means to travel to the hospitals and care facilities to see friends and/or family.

The BRT Alternative and Lankershim/Oxnard On-Street Alignment would be adjacent to the Tarzana Treatment Center at 18646 Oxnard Street. The bus corridor is located on the north side of Oxnard Street and the Tarzana Treatment Center is located on the south side of the roadway. The bus corridor would not interfere with access to the facility and therefore no adverse impacts under NEPA (significant impacts under CEQA) would result.

The exclusive right-of-way portion of the MOS alignment is not adjacent to a hospital or health care facility and is not expected to result in adverse impacts under NEPA (significant impacts under CEQA).

Though there are no hospitals within the ¼ mile vicinity of the proposed alternatives or alignments, many of them do exist and provide services to the community. Due to the hospital distances from the alternatives or alignments and the availability of alternative streets (in emergency rescue situations) no adverse impacts under NEPA (significant impacts under CEQA) to emergency vehicle access or vehicular access to the hospitals are expected. Additionally, the hospitals are located far enough away from any of the proposed routes that there would be no adverse noise impacts under NEPA (significant noise impacts under CEQA) on the hospitals.

4-4.3.5 Parks and Recreational Facilities

No parks or recreational facilities or portions thereof would be acquired under any of the alternatives.

The TSM Alternative would add to the number of buses in service and would, therefore, improve transit access to parks and recreational facilities. This would be considered a beneficial effect.

The BRT Alternative, including the Lankershim/Oxnard On-Street Alignment and the MOS, would also provide improved transit access to parks and recreational facilities. Pedestrian and automobile access to parks and recreational facilities should not be negatively affected since no busway improvements (e.g., station platforms, park and ride lots) would obstruct the points of access to and from these facilities.

Although several parks and recreational facilities (e.g., North Hollywood Park/Recreation Center, Sepulveda Basin facilities) would be located adjacent to a busway alignment, none would experience adverse indirect impacts under NEPA (significant indirect impacts under CEQA) with respect to noise, vibration, air quality, or visual impacts. Potential proximity impacts at each facility are described more fully in Section 4-15 (Draft Section 4(f) Evaluation).

Existing and planned capacity and service levels for parks and recreational facilities are expected to be adequate with or without the proposed project.

4-4.4 Mitigation Measures

Under the BRT alternative, as previously discussed, pedestrian accessibility to religious institutions would not be reduced along Chandler Boulevard, due to new mid-block crossings and pedestrian paths that would be incorporated into the project design. Under all of the alternatives and alignments, pedestrian safety would be maintained at intersections and/or corridor crossings by installing fencing, proper signalization, pedestrian gates, and signage (see Chapter 2). Other safety measures are discussed in Section 4-13. Mitigation measures for noise impacts, discussed in Section 4-9, would reduce noise impacts to below the levels of significance. No other mitigation is required.

4-5 FISCAL AND ECONOMIC CONDITIONS

4-5.1 Setting

a. Introduction

The setting describes baseline fiscal and economic conditions (i.e., local and regional employment levels and property tax revenues) by which the project alternatives are assessed in the impacts section. Data for the setting were obtained from the Southern California Association of Governments (SCAG), County and City of Los Angeles, U.S. Census Bureau, and the State Board of Equalization.

b. Employment and Economic Activity

❑ Regional Economy

The study area for the San Fernando Valley East-West Transit Corridor is a part of the larger Southern California Association of Governments region (SCAG region) which encompasses Los Angeles, Orange, Imperial, Riverside, San Bernardino, and Ventura counties. However, most of the economic effects (e.g. property tax revenue losses) of the project would occur within the City of Los Angeles where the project would be located.

The SCAG region experienced a loss of 466,000 jobs during the 1990-1993 recession. However, since its lowest level in the first quarter of 1994, total payroll employment in the region has risen. In 1998, there were an estimated 6,368,600 jobs in the Southern California basin, an increase of 555,300 jobs, or 9.6 percent.[4]

This tourism and entertainment industry has been especially strong in the SCAG region. While all other major industry groups lost jobs during the 1990-1993 recession, the tourism and entertainment industry actually gained jobs during this period. The only other industry that rivals the tourism and entertainment industry in economic strength is the transportation and wholesale trade industry, which has recovered to well above its pre-recession levels (see Table 4-11).

Employment in the Los Angeles metro area also increased, although not as rapidly as in the SCAG region as a whole. In 1994, there were approximately 3,701,900 non-agricultural wage and salary jobs in the Los Angeles metro area, and by 1998 there were 3,946,700 jobs, a total increase of 6.6 percent.[5]

[4] *New Solutions for a New Economic Environment*, SCAG 2000.
[5] Ibid.

Table 4-11: SCAG Region Jobs by Major Industry Group			
	1990	**1994**	**1998**
Professional Services	570,700	497,700	526,600
Diversified Manufacturing	797,300	706,000	796,700
Transportation & Wholesale Trade	567,800	519,500	588,400
Tourism & Entertainment	254,500	261,100	311,900
Defense Related	290,200	170,700	155,800
Resource Based	87,400	80,500	71,700
High Technology Manufacturing	127,300	100,300	107,700
Total	**2,695,200**	**2,318,100**	**2,558,800**

Source: SCAG, 2000.

SCAG anticipates that employment in the City of Los Angeles as well as in the project study area will continue to grow at an even faster rate than the metro area has in the past few years. As shown in Table 4-12, employment in the City of Los Angeles is expected to increase 30 percent between 1994 and 2020, and employment in the East and West Valleys to increase 42 and 22 percent respectively in the same time period.

Table 4-12: Employment, 1994-2020				
Jurisdiction	**1994**	**2020**	**1994-2020 Change**	
			Absolute	**%**
City of Los Angeles	1,705,100	2,209,300	504,200	30
East Valley	94,043	133,879	39,836	42
West Valley	44,897	47,816	2,919	22

Source: SCAG, 2000.

❑ Local Economy

The local community directly affected by the project would be the San Fernando Valley in the City of Los Angeles. The proposed San Fernando Valley East-West Transit Corridor would connect major activity centers that include the North Hollywood Business District, Valley Government Center in Van Nuys, Universal City, Valley College, the Sepulveda Basin Recreation Area, Pierce College, and Warner Center. In addition, the East-West Transit Corridor would provide connections to the Los Angeles central business district and other points on the Metro Rail, Metro Bus, and Metrolink systems throughout Los Angeles County.

In the 1980s, major employment centers were built in the Valley. While in recent years the Valley has lost many high-paying, skilled jobs in the aerospace and defense industry, it still retains a large, diversified economic base. Two major industries in the Valley are entertainment and tourism, which support the Warner Brothers, Disney, and MCA/Universal movie studios.

By some accounts, approximately 70 percent of Los Angeles' entertainment companies are based in the Valley. Other leading employment areas in the Valley are service jobs in health, business, engineering, and wholesale trade.

c. Tax Sources & Revenues

This section describes the tax revenues generated in the County and City of Los Angeles. The tax revenues addressed are property taxes, sales taxes, and business license fees.

❑ Property Taxes

A small number of privately owned residential and non-residential properties adjacent to the busway alignment would be acquired during construction activities. The affected properties are within the jurisdiction of the City and County of Los Angeles where property taxes are levied on the assessed value of all privately owned property. The County levies property taxes at approximately one percent of the assessed property value. The property tax revenues are put into a county-wide pool and then apportioned on a percentage basis to the local jurisdictions (e.g., county, cities, school districts, and special districts). In the fiscal year 1999-2000, Los Angeles County levied $5.42 billion in property taxes. The allocation of this revenue was approximately 28 percent to the County, 17 percent to the cities, 46 percent to the school districts, and 9 percent to special districts[6].

❑ Sales Taxes

The gross receipts and sales tax revenues of individual businesses are confidential. The provisions of Section 21.17 of the Business Tax Ordinance, subject to certain exceptions, make it unlawful for the City to make known the business affairs, operations, or information required of any person filing returns or paying taxes under the provisions of the Los Angeles Municipal Code. It is possible to get information regarding groups of businesses from the California Department of Finance (DOF). In this instance, the numbers of businesses whose operations would be terminated (because of acquisition) by this project are so low (see Section 4-2.3.3) that it is not possible to create a group query to DOF that would not identify an individual business. Consequently, sales tax losses because of displacements have not been estimated for this project. It is also highly likely that displaced businesses would relocate within the San Fernando Valley and the City of Los Angeles, so actual business tax losses would be negligible.

❑ Business License Fees

Section 3-1.2.2 of the Business Tax Ordinance states that the business affairs and operations of individual businesses are confidential and business taxes and payroll taxes cannot be made public. Thus, the loss in local business license fee revenues due to business disruptions and acquisitions by the project alternatives cannot be determined.

[6] Based on an October 25, 2000 telephone conversation with the Los Angeles County Auditor Comptroller's Office.

4-5.2 Impact Analysis Methodology and Evaluation Criteria

The impact section identifies the jobs generated for the operation of each alternative and the losses in local jobs and property tax revenues due to property acquisitions (see Section 4-2, Acquisitions and Displacements, for further discussion of job losses). For purposes of this environmental document, a loss of jobs in excess of 1 percent of area employment would be considered an adverse effect under NEPA (significant effect under CEQA). Property tax losses in excess of 1 percent of the area tax base would be considered an adverse effect under NEPA (significant effect under CEQA).

4-5.3 Impacts on Fiscal & Economic Conditions

4-5.3.1 Employment & Economic Activity

a. Employment Loss

- **No Build Alternative**

The No Build Alternative would not require any property acquisitions; therefore, no jobs would be displaced, and there would be no adverse effect under NEPA (significant effect under CEQA) on the local and regional job supply.

- **Transportation System Management (TSM) Alternative**

The TSM Alternative would not require any property acquisitions; therefore, no jobs would be displaced, and there would be no adverse effect under NEPA (significant effect under CEQA) on the local and regional job supply.

- **Bus Rapid Transit (BRT) Alternative**

The BRT Alternative would result in the potential acquisition of a number of businesses, including several restaurants, two car sales lots, an automobile repair shop, a cleaners, and several other miscellaneous businesses. Due to these acquisitions, the BRT Alternative would result in the loss of approximately ~~66~~ 53 jobs (see Section 4-2).

The Lankershim/Oxnard On-Street Alignment ~~and the Minimum Operable Segment (MOS)~~ would ~~each~~ result in potential acquisitions affecting ~~five~~ seven businesses~~ and a religious center~~. Due to these acquisitions~~, both of these~~ this option~~s~~ would result in the loss of approximately ~~25~~ 39 jobs (see Section 4-2).

The MOS would result in the displacement of two businesses with approximately 15 employees. Although the displacement would be potentially adverse under NEPA (potentially significant under CEQA) to individual businesses, it would not have an adverse impact under NEPA (significant impact under CEQA) on the overall local and regional business climate because the

numbers of jobs to be displaced would be extremely small in comparison to the total jobs in the region. As shown in Table 4-13, the job losses would be one-ten-thousandth of a percent or less of the existing or future jobs in the City of Los Angeles or the East or West Valleys. Since a job loss of less than 1 percent of the total jobs in an area is considered not significant, these job losses would not have an adverse effect under NEPA (significant effect under CEQA) on the local or regional economy.

Table 4-13: Employment Loss Due to Property Acquisitions

	Jurisdiction	Study Area Totals		Job Losses From Property Acquisitions		
		1994	2020	No.	Job Loss as Percentage of Total Jobs in Jurisdiction	
					1994	2020
Full BRT	City of Los Angeles	1,705,100	2,209,300	~~65~~ 53	<.0001%	<.0001%
	East Valley	94,043	133,879		<.001%	<.001%
	West Valley	44,897	54,834		.001%	.001%
On-Street ~~/~~ ~~MOS~~	City of Los Angeles	1,705,100	2,209,300	~~25~~ 39	<.0001%	.00001%
	East Valley	94,043	133,879		<.001%	<.001%
	West Valley	44,897	54,834		<.001%	<.001%
MOS	City of Los Angeles	1,705,100	2,209,300	15	<.0001%	.00001%
	East Valley	94,043	133,879		<.001%	<.001%
	West Valley	44,897	54,834		<.001%	<.001%

Source: SCAG, 2000; Myra L. Frank & Associates, 2000.

b. Employment Generated by Operation Expenditures

Operating expenditures generate direct (onsite and offsite) and indirect full-time equivalent employment (FTE). Direct, onsite FTE figures for the TSM and BRT alternatives were provided by Los Angeles Metropolitan Transportation Authority (MTA) and its consultants. Direct, offsite FTE and indirect FTE were derived by multiplying the estimated maintenance and operation costs by regional multipliers provided by the American Public Transit Association (APTA).

Direct, onsite FTE are the jobs generated to operate the bus system (e.g., bus drivers, road supervisors, maintenance workers, security personnel, and administrators and staff). Direct, offsite jobs are those jobs associated with the direct operation of the transit system and include employment in business services, insurance, motor vehicles, utilities, real estate, chemicals, petroleum/natural gas, and other industries. Indirect FTE jobs are the jobs required to support the direct employment and include employment in the service, restaurant, and hotel industries.

❑ No Build Alternative

The No Build Alternative would not result in the creation of any jobs.

❑ TSM Alternative

It is estimated that annual operation and maintenance expenditures for the TSM Alternative would generate 145.9 direct, onsite FTE jobs (see Table 4-5.4). These employees could be hired from either the local area or from outside the county of Los Angeles.

Direct offsite and indirect employment would also be required for the operation of the bus system. As shown in Table 4-14, the annual operation and maintenance expenditures for the TSM Alternative are anticipated to generate ~~121.5~~ 113.0 direct offsite FTE jobs, and ~~365~~ 339.3 indirect FTE jobs, for a total of ~~632.4~~ 587.9 FTE jobs.

The creation of these new jobs would be a beneficial effect to the local and regional economy.

Table 4-14: Full-Time Employment Generated by Annual Operations and Maintenance Expenditure

	No Build Alternative ($0)[1]	**TSM Alternative ($12.50)[1]**	**BRT Alternative ~~$20.45~~ ($22.50)[1]**	**MOS ($20.34)[1]**
Direct Onsite	0	145.9	~~215.6~~ (237.2)	219.7
Direct Offsite	0	121.5	~~198.8~~ (218.7)	197.8
Total Direct	0	267.4	~~414.4~~ (455.9)	417.5
Indirect	0	365.0	~~565.7~~ (622.3)	569.9
Total Annual FTE	0	632.4	~~980.1~~ (1,078.2)	987.4

Notes:

[1] Dollars are in 1999 or (2001) million dollars and represent annual system operation and maintenance costs.

FTE (Full time-equivalent employment) is a 40-hour work week regardless of the actual number of employees used to comprise that week, and is used to account for variations in weekly average work hours among industries.

Direct onsite FTE was estimated by MTA and its consultants based on annual operations and maintenance expenditures.

Direct offsite FTE is equivalent to the operation and maintenance costs multiplied by a regional multiplier of 972.04 that assumes $100 million in annual operations and maintenance expenditures. The regional multiplier was provided by the American Public Transit Association (APTA). Direct offsite FTE includes jobs in business and professional services (24%), insurance (16%), transportation (8%), motor vehicles (8%), utilities (7%), real estate (6%), chemicals (6%), petroleum/natural gas (5%), and other industries (20%).

Total Direct FTE is the summation of direct onsite FTE and direct offsite FTE.

Indirect FTE is equivalent to the total direct FTE multiplied by a regional multiplier of 1.365 that was provided by APTA.

Source: Manuel Padron & Associates, MTA, 2000; American Public Transit Association, April 1, 1983.

❑ BRT Alternative

It is estimated that annual operation and maintenance expenditures for the Full BRT Alternative would generate ~~215.6~~ 237.2 direct, onsite FTE jobs (see Table 4-5.3). These employees could be hired from either the local area or from outside the county of Los Angeles. In addition, the BRT

Alternative is anticipated to generate ~~198.8~~ 218.7 direct offsite FTE jobs, and ~~565.7~~ 622.3 indirect FTE jobs, for a total of ~~980.1~~ 1,078.2 FTE jobs.

The MOS option would ~~create an approximately equivalent number of jobs. This option would~~ generate 219.7 direct onsite FTE jobs, 197.8 direct offsite FTE jobs, and 569.9 indirect FTE jobs, for a total of 987.4 FTE jobs.

As is the case for the TSM Alternative, the creation of these new jobs would be a beneficial effect to the local and regional economy. In addition, because the Full BRT ~~Alternative~~ would generate more jobs than the TSM Alternative, the beneficial effect would also be greater.

c. Tax Revenue Loss

❑ No Build Alternative

The No Build Alternative would not require any acquisitions; therefore, there would be no loss of tax revenues and thus no adverse effect under NEPA (significant effect under CEQA).

❑ TSM Alternative

The No Build Alternative would not require any acquisitions; therefore, there would be no loss of tax revenues and thus no adverse effect under NEPA (significant effect under CEQA).

❑ BRT Alternative

As noted above, revenues collected from sales taxes and business license fees are based on business' gross receipts, which are kept confidential under Sections 21.17 and 3-1.2.2 of the Business Tax Ordinance. Therefore, the loss in sales tax and business license fee revenues under the BRT Alternative cannot be determined.

Termination of the approximately ~~95~~ 109 lease agreements within the ~~SP~~ MTA ROW would not result in any property tax losses, because property tax is not levied on MTA property.

The acquisition of private property would result in property tax revenue losses to county and city agencies, school districts, and other special districts in the County of Los Angeles. Total property tax revenue losses are equivalent to a summation of the assessed property taxes of the private properties to be acquired. The assessed property taxes of the acquired properties were obtained from the Los Angeles County Assessors records for Fiscal Year 1999-2000 as provided in Damar, a real estate database for Los Angeles County produced by TRW-REDI Property Data.

Assessed property taxes for the acquired properties under the Full BRT Alternative, Lankershim/ Oxnard On-Street Alignment, and MOS are given below in Table 4-15. The BRT Alternative would result in the annual loss of approximately ~~$19,400~~ $19,080 in property taxes, ~~and~~ the Lankershim/Oxnard On-Street Alignment would result in an estimated loss of approximately

$13,740, and the MOS would ~~each~~ result in the annual loss of approximately ~~$15,800~~ $10,070 in property taxes.

Table 4-15: Property Tax Assessments for Acquired Properties

	Property to be Acquired	Property Taxes Levied, FY 1999-2000[1]
Bus Rapid Transit (BRT)	~~13079 Chandler Boulevard~~	~~$160~~
	5546 Fulton Avenue	$2,110
	13250 Burbank Boulevard	$1,310
	~~6020 Woodman Avenue~~	~~$2,316~~
	14300 Bessemer Street	$3,880
	~~14348 Bessemer Street~~	~~$3,430~~
	6050 Van Nuys Boulevard	$6,190
	21045 Victory Boulevard	$3,670
	13321 Burbank Boulevard	$1,920
	Pierce College	$0
	Total	**~~$23,070~~ $19,080**
Lankershim/Oxnard On-Street Alignment	~~6020 Woodman Avenue~~	~~$2,316~~
	14300 Bessemer Street	$3,880
	~~14348 Bessemer Street~~	~~$3,430~~
	6050 Van Nuys Boulevard	$6,190
	21045 Victory Boulevard	$3,670
	Pierce College	$0
	Total	**~~$19,490~~ $13,740**
Minimum Operable Segment (MOS)	~~6020 Woodman Avenue~~	~~$2,316~~
	14300 Bessemer Street	$3,880
	~~14348 Bessemer Street~~	~~$3,430~~
	6050 Van Nuys Boulevard	$6,190
	Total	**~~$15,820~~ $10,070**

Notes:
(1) FY 1999-2000: Los Angeles County Fiscal Year, ending on June 30, 2000.
For a full explanation of properties to be acquired, please refer to Chapter 1-1, Acquisitions.

Source: Los Angeles County Assessors Office, 2000; Myra L. Frank & Associates, 2000.

The property tax revenue losses by jurisdiction are equivalent to the total property tax losses multiplied by the percent of the total property taxes that each jurisdiction receives (27 percent for the County, 17 percent for the cities, 47 percent for the school district, and 9 percent for special districts). A summary of the estimated property tax revenue loss by jurisdiction is given below in Table 4-16. The BRT Alternative, Lankershim/Oxnard On-Street Alignment, and MOS would each result in a property tax loss of less than one ten-thousandth of a percent of each jurisdiction's total annual property tax revenues.

Table 4-16: Estimated Property Tax Revenue Loss by Jurisdiction

	Jurisdiction	Property Tax Revenue Allocation	Property Tax Revenue Loss by Jurisdiction	Loss as % of Property Tax Revenues
Bus Rapid Transit (BRT)	Los Angeles County	$1,513,877,029	~~$6,469~~ $5,152	<.00001%
	Cities	$921,357,309	~~$3,928~~ $3,244	<.00001%
	School Districts	$2,478,256,170	~~$10,628~~ $8,968	<.00001%
	Special Districts	$503,862,999	~~$2,079~~ $1,717	<.00001%
Lankershim/Oxnard On-Street Alignment	Los Angeles County	$1,513,877,029	~~$5,449~~ $3,710	<.00001%
	Cities	$921,357,309	~~$3,307~~ $2,336	<.00001%
	School Districts	$2,478,256,170	~~$8,951~~ $6,458	<.00001%
	Special Districts	$503,862,999	~~$1,783~~ $1,237	<.00001%
Minimum Operable Segment (MOS)	Los Angeles County	$1,513,877,029	~~$4,430~~ $2,719	<.00001%
	Cities	$921,357,309	~~$2,689~~ $1,712	<.00001%
	School Districts	$2,478,256,170	~~$7,277~~ $4,733	<.00001%
	Special Districts	$503,862,999	~~$1,424~~ $906	<.00001%

Notes:

Property tax revenues levied totaled $5.41 billion in the 1999-2000 fiscal year in Los Angeles County. Revenues were allocated according to the following schedule: 28 percent to the County general fund (before CRA), 17 percent to the cities, 46 percent to the school districts, and 9 percent to special districts.

Total property tax losses by Alternative are given in Table 4-5.3.

The No Build and TSM Alternatives would result in no property takes and no property tax revenue loss.

The BRT Alternative would result in the acquisition of 7 properties and a total loss of ~~$23,070~~ **$19,080** in property tax revenues.

The Lankershim/Oxnard On-Street Alignment would result in the acquisition of ~~4~~ 3 properties and a total loss of ~~$15,820~~ **$13,740** in property tax revenues.

The MOS would result in the acquisition of ~~4~~ 3 properties and a total loss of ~~$15,820~~ **$10,070** in property tax revenues.

Sources: Los Angeles County Auditor Comptroller, 2000; Myra L. Frank & Associates, 2000.

~~The proportionately largest loss in property tax revenues would occur to the school districts, followed by the County, cities, and special districts. However, the losses would total less than .00001 percent of the total property tax revenues allocated to any one group of jurisdictions. And, b~~Because the revenue loss would be distributed among the county and the many cities, special districts, and school districts, the actual loss to any one entity would not be substantial. Hence, the alternatives would have no adverse impact under NEPA (significant impact under CEQA) on property tax revenues of the jurisdictions.

4-5.4 Mitigation

Where acquisition and relocation are unavoidable, MTA will follow the provisions of the Uniform Relocation Act and the 1987 Amendments as implemented by the Uniform Relocation Assistance and Real Property Acquisition Regulations for Federal and Federally Assisted Programs adopted by the Department of Transportation, dated March 2, 1989. (See Section 4-2, Acquisitions and Displacements, for further discussion of relocation assistance.)

4-6 VISUAL AND AESTHETIC CONDITIONS

This section presents the existing visual and aesthetic conditions along the length of the proposed San Fernando Valley East-West Transit Corridor.

The existing setting of the proposed alignments and of the station areas is described in Section 4-6.1. In Section 4-6.2, the impact analysis methodology is presented, and in Section 4-6.3 the impacts on visual and aesthetic conditions along the proposed alignments and in the immediate station areas are described. Section 4-6.4 describes mitigation measures to be undertaken in each of the alignment options and at each of the proposed station sites.

4-6.1 Setting

4-6.1.1 Methodology

Generally, there are two types of physical features that characterize the visual environment of an area:

- Built environment features including development patterns, buildings, structures, parking areas and roads, utilities, and signs; and,
- Natural features such as hills, vegetation, rock outcroppings, drainages, and soils.

The study area is defined to include both local and distant views as seen from within a ¼-mile radius of the alternative alignments and stations. Local views include the immediate landscape, and distant views include mountains, hills, and ridgelines up to 5 miles away.

The setting is defined in terms of views. The project corridor is subdivided into "visual assessment units" within which the views are discussed. Also included is an assessment of existing trees, lighting, and glare.

a. Views

The following terms are used to analyze and rank the overall quality of views in the study area, and are presented in the tables below:

- **Visual quality** refers to the general aesthetics of a view. This analysis attempts to assess the quality of a view in an objective fashion through the use of the following descriptive categories: vividness, intactness, and unity. Vividness is the visual power or memorability of landscape components as they combine in striking and distinctive patterns; intactness is the visual integrity of the natural and built landscape and its freedom from encroaching elements; and unity is the visual coherence and compositional harmony of the landscape considered as a whole. This analysis evaluates visual quality using low, medium, and high rankings. Views of high quality have topographic relief, a

variety of vegetation, rich colors, and unique natural and built features. Areas with medium visual quality have interesting but minor landforms, some vegetative variety in color, and/or moderate scenery. Areas of low visual quality have uninteresting scenery, and/or common elements.

- **Viewer groups and sensitivity** identifies who is most likely to experience the view and what the associated sensitivities of the viewer and land use are. Residents are considered to have high sensitivity as a viewer group. High sensitivity land uses are schools, religious institutions, and passive outdoor spaces including parks, playgrounds, and recreation areas. Motorists and transit patrons have varying sensitivity depending on the nature of their trip. Motorists on pleasure trips are generally considered to be more sensitive than are commuters. Due to their travel speed and the large number of distractions posed by driving, motorists are ranked as having medium sensitivity. Occupants of office, commercial or industrial buildings are also considered to have medium sensitivity, as most or all of their time is spent focused on work tasks inside of buildings.

- **Duration of a view** refers to the amount of time that a particular view can be seen by a specific viewer group. Two duration categories are used in this analysis: fleeting or intermittent views (such as those experienced by motorists and cyclists), which are rated as short, and long-term or constant views (including views from residences or office buildings), which are rated long.

- **Visual resources** within a view may include unique views, views identified in local plans, views from scenic highways, or specific unique structures or landscape features, including distinct groups of mature trees.

b. Existing Mature Trees

There are approximately 1300 existing trees growing in the ~~SP~~ MTA ROW. Of these, approximately 800 are mature trees. (Trees 25 to 30 feet tall or taller considered mature.) Trees were documented by size and species along the length of the ~~SP~~ MTA ROW. The species and quantity observed are documented in Table 4-17. Where the ~~SP~~ MTA ROW is in the Chandler Boulevard

Table 4-17: Southern Pacific Right-of-Way (~~SP~~ MTA ROW) Tree Inventory

ROW Visual Assessment Unit	Tree species (common name)	Approximate Quantity
A: Camellia Avenue to SR-170	Bluegum eucalyptus	77
	Tree of heaven	1
	California pepper	1
B: SR-170 to Laurel Canyon Boulevard	Bluegum eucalyptus	36
	Locust tree	32
	London plane	25
	Palm	20
	Alleppo pine	5
C: Laurel Canyon Boulevard to Ethel Avenue	Alleppo pine	103
	London plane	86
	Locust tree	48
	Palm	27
	Bluegum eucalyptus	8
	Oleander	4
	Walnut	3
	Willow	3
	Elm	2
	Apple	1
	Ash	1
	Mulberry	1
D: Ethel Avenue to Woodman Avenue	Palm	37
	Mulberry	17
	Willow	13
	Ash	8
	Apricot	5
	Pecan	5
	Tree of heaven	5
	Blackwood acacia	4
	Oak	3
	Viburnum	3
	Walnut	3
	Alleppo pine	2
	Almond	2
	Beechwood	2
	Ficus	2
	Oleander	2
	American sweetgum	1
	Bottle tree	1
	Brazilian pepper	1
	Carrotwood	1
	Catalpa	1
	Elm	1
	Holly	1
	Italian cypress	1
	Olive	1
	Pomegranate	1
	Silk tree	1
	Tipu	1

Table 4-17: Southern Pacific Right-of-Way (~~SP~~ MTA ROW) Tree Inventory		
ROW Visual Assessment Unit	**Tree species (common name)**	**Approximate Quantity**
E: Woodman Avenue to Hazeltine Avenue	Palm	17
	Italian cypress	7
	Almond	6
	Ash	6
	Ficus	5
	Tree of heaven	4
	California pepper	1
	Coast live oak	1
	Elm	1
F: Hazeltine Avenue to Sepulveda Boulevard	Eucalyptus	14
	American sweetgum	9
	Palm	2
G: Sepulveda Boulevard to Haskell Avenue	Eucalyptus	10
	California pepper	5
	Palm	1
H: Haskell Avenue to Balboa Boulevard	Walnut	93
	California Pepper	21
	Coast live oak	21
	Tree of heaven	18
	Ash	13
	Eucalyptus	13
	Black walnut	12
	Catalpa	11
	Palm	11
	Poplar	9
	Blackwood acacia	8
	Stone pine	8
	Cork oak	3
	Elm	3
	Willow	3
	Almond	2
	Box elder	2
	Alleppo pine	1
	Silk tree	1
	Yucca	1

Table 4-17: Southern Pacific Right-of-Way (~~SP~~ MTA ROW) Tree Inventory		
ROW Visual Assessment Unit	**Tree species (common name)**	**Approximate Quantity**
I: Balboa Boulevard to White Oak Avenue	Palm Crepe myrtle Ash Tree of heaven Almond Walnut Bottle tree Plum Apple Fig Sycamore	156 49 9 6 5 3 2 2 1 1 1
J: White Oak Avenue to Reseda Boulevard	Manna gum eucalyptus Bushy yate Mulberry Ash Palm Siberian elm Tree of heaven	4 3 2 1 1 1 1
K: Reseda Boulevard	No trees	
L: Reseda Boulevard to Winnetka Avenue	Palm Grey pinion cypress Tree of heaven Brazilian pepper Ash Elm Oleander Silk tree Crepe myrtle Italian cypress Lemon Lombardy poplar Olive Tipu tree	82 10 10 6 4 3 3 3 1 1 1 1 1 1
M: Winnetka Avenue to Variel Avenue	Palm Tipu tree Elm Ash	40 10 5 2
	TOTAL TREES:	1384
Note: Since preparation of this inventory, MTA has removed a number of diseased eucalyptus trees along the corridor.		

Source: Gruen Associates, 2000.

median, mature trees are set back 3 to 10 feet from the curb. Where the ~~SP~~ MTA ROW is behind the rear yards of residential homes, there are mature trees of a diversity of species growing adjacent to rear property fences. Throughout the ~~SP~~ MTA ROW, trees are growing primarily along the edges of the right-of-way. Since the preparation of Table 4-17 for the Draft EIS/EIR, some mature diseased eucalyptus trees have been removed by MTA. Potential impacts of the proposed project on these existing mature trees are discussed in Section 4-6.3.

c. Lighting and Glare

In the vicinity of proposed station sites, there is existing street lighting and lighting in commercial and school parking lots. The location of this existing lighting is discussed in the visual assessment units below. There are no existing glare conditions.

4-6.1.2 Visual Assessment Units: Detailed Discussion

Each visual assessment unit denotes an area of distinct visual character. Fifteen visual assessment units are distinguished along the ~~SP~~ MTA ROW and On-Street Alignments of the BRT Alternative. Each of these visual assessment units is based on common visual characteristics, and provides a framework for analyzing the existing visual and aesthetic conditions in the Transit Corridor. A map of these visual assessment units is shown in Figure 4-28. Each visual assessment unit extends approximately 500 feet to either side of the alignment or station boundary. In addition to the information presented in the following tables, existing features such as visual character, viewer groups/sensitivity, key views, and visual resources are described in some detail in the visual assessment units. The station areas are described within the context of the visual assessment units, and are also described in greater detail in Section 4-6.1.5.

The ~~SP~~ MTA ROW alignment follows an old railroad right-of-way, formerly owned by the Southern Pacific Railroad and has not been used for transportation since the early 1990s. The right-of-way is covered with exposed soil, some weedy groundcover and some broken glass. There are rails and railroad ties and no trespassing signs along most of the length of the BRT Alternative. Along certain portions of the ~~SP~~ MTA ROW, the right-of-way is used for industrial and commercial leases or vehicle storage, and rails have been removed in certain areas. The Lankershim/Oxnard On-Street Alignment is characterized by the commercial character of Lankershim Boulevard and the predominantly residential character of Oxnard Street. Note: all photos in this section were taken between July and September, 2000.

a. Visual Assessment Unit A (Chandler Boulevard – Lankershim Boulevard to Camellia Avenue)

Visual Assessment Unit A			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Medium	North Hollywood Park Users/High	Short	~~Eucalyptus trees~~ None

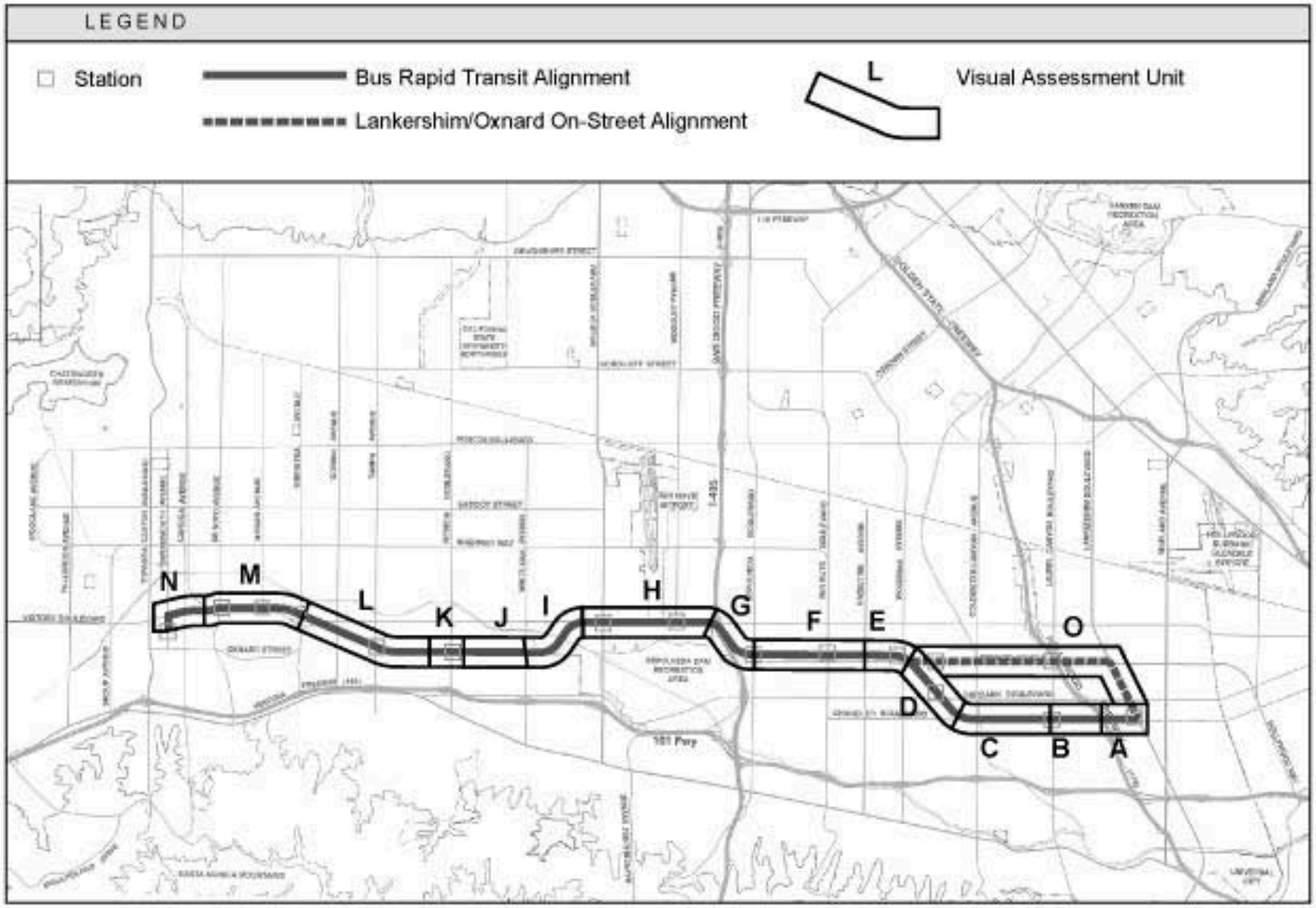


Figure 4-28: Visual Assessment Units

Beginning at Lankershim Boulevard, Chandler Boulevard is currently a four-lane roadway with the ~~SP~~ MTA ROW separating the eastbound and westbound lanes. From Lankershim Boulevard to just east of Camellia Avenue the ~~SP~~ MTA ROW is approximately 60 to 250 feet wide and currently developed with light industrial uses (see Figure 4-29). ~~The project would follow an on-street route on Chandler Boulevard from Lankershim Boulevard to Camellia Avenue.~~ Just west of Tujunga Boulevard, the busway will pass between industrial buildings that are located approximately 30 feet apart.

The majority of buildings with views of Chandler Boulevard are commercial/industrial and therefore do not contain sensitive viewers. Users of North Hollywood Park, to the south of the alignment, do represent sensitive viewers. Users of North Hollywood Park are able to see Chandler Boulevard and the right-of-way from the northeast corner of the park, but existing buildings block other views. There are no key views within this visual assessment unit.

At Camellia Avenue, in the south portion of the right-of-way across Chandler Boulevard from North Hollywood Park, there ~~is~~ was a grove of approximately 65 bluegum eucalyptus trees during the inventory phase of the Draft EIS.EIR. These trees appeared to be under stress, perhaps as a result of red lerp psyllid infestation. The red lerp psyllid has infested eucalyptus trees in California for two years. In June, 100 parasitic wasps were released in North Hollywood in an attempt to control the psyllid population. Since the previous inventory, these trees have been removed due to disease. (See Table 4-17 for a complete inventory of trees in the ~~SP~~ MTA ROW.)

There are no lighting fixtures in the right-of-way, but there are streetlights along Chandler Boulevard sidewalks, providing background ambient light. ~~The eucalyptus grove is the only visual resource in this visual assessment unit.~~ No visual resources are currently located in this visual assessment unit.

b. Visual Assessment Unit B (Chandler Boulevard – Camellia Avenue to Laurel Canyon Boulevard)

Visual Assessment Unit B			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Medium	Residents/High	Long	~~Row of Eucalyptus~~ None

Between Camellia Avenue and SR-170, the right-of-way narrows to 60 feet in width and a row of mature bluegum eucalyptus trees approximately 60 feet tall ~~are located~~ were observed along the north edge during the inventory phase of the Draft EIS/EIR. Since the previous inventory, these trees have been removed due to disease. Where the right-of-way passes under the SR-170 overpass there is no vegetation, only exposed soil and railroad tracks. Remnants of the previous rail operations, such as rails and rail ties, remain throughout this portion of the right-of-way. West of SR-170, the median right-of-way is exposed soil with some low groundcover and trees along the north and south edges. The right-of-way width is 60 feet wide in this area, with both mature and young trees planted in rows between 3 and 10 feet from the curb.

Visual Assessment Unit A - Chandler Boulevard west of Tujunga Avenue

Visual Assessment Unit B - The median right-of-way east of Laurel Canyon Boulevard

Figure 4-29: Existing Character of Chandler Boulevard

There are two lanes of traffic and one parking lane adjacent to both sides of the right-of-way along the entire length of this visual assessment unit. The width of Chandler Boulevard on each side of the median is approximately 35 feet in most portions of this visual assessment unit. Chandler Boulevard is less than 35 feet wide on the north side of the right-of-way between Carpenter and Morella Avenues and between Gentry and Ben Avenues. The road is narrower in these areas due to the existence of a soft curb in front of single-family homes on the north side of Chandler Boulevard.

Two- to three-story multi-family uses and one-story single-family uses along both sides of Chandler Boulevard have views across Chandler Boulevard to the right-of-way from their front windows. North Hollywood High School extends from Colfax Avenue to Carpenter Avenue. The running track and tennis courts face Chandler Boulevard but main campus buildings face south onto Magnolia Boulevard. A four-story office building along Chandler Boulevard near Laurel Canyon Boulevard has views of the median right-of-way from all floors (see Figure 4-2). Highly sensitive viewers in this visual assessment unit are the residents of the single-family and multi-family dwellings, particularly the residents of Valley Village senior apartments on the northwest corner of the intersection of Chandler Boulevard and Laurel Canyon Boulevard. The users of the recreational areas of North Hollywood High are also viewers of high sensitivity. Workers in the office buildings have medium sensitivity. All viewers in this area are separated from the right-of-way by two lanes of traffic and one parking lane on either side of Chandler Boulevard.

Views of the Santa Monica Mountains can be seen from passing cars and from the sidewalks looking south along Laurel Canyon Boulevard. The Santa Susana Mountains can also be seen to the north from Laurel Canyon Boulevard and its sidewalks. These views are considered high quality. The views are visible for up to 5 miles and thus have a high duration. Existing development blocks views from within the median right-of-way, and there are no distant views from single-family homes fronting Chandler Boulevard.

Along the northern edge, ~~there are~~ mature palms and approximately 40 bluegum eucalyptus trees~~, all mature~~ were observed during the inventory for the Draft EIS/EIR. The mature eucalyptus trees along the northern edge of the right-of-way were all at various stages of red lerp psyllid infestation. Several of the eucalyptus trees appeared dead. Some of the young trees also appeared to be suffering from stress. Since the previous inventory the eucalyptus trees have been removed due to disease, but the mature palm trees remain. There are also young locust and alleppo pine trees along the north edge of the right-of-way east of Laurel Canyon Boulevard. Along the southern edge are mature palms, and young locust and London plane trees. (See Table 4-17) ~~The mature eucalyptus trees along the northern edge of the right-of-way are all at various stages of red lerp psyllid infestation. Several of the eucalyptus trees appear dead. Some of the young trees also appear to be suffering from stress. The trunks of the mature eucalyptus trees are approximately 3 feet from the curb line of the westbound lanes of Chandler Boulevard. The existing curb and street cover up almost half of the root system of these mature trees.~~ The young trees are approximately 10 feet from the curb.

~~Visual resources in this visual assessment unit consist of the row of eucalyptus.~~ No visual resources are currently located in this visual assessment unit.

c. Visual Assessment Unit C (Chandler Boulevard – Laurel Canyon Boulevard to Ethel Avenue)

Visual Assessment Unit C			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Medium	Residents/High	Long	None

Between Laurel Canyon Boulevard and Whitsett Avenue, the ~~SP~~ MTA ROW remains a 60-foot median along Chandler Boulevard. West of Whitsett Avenue and extending to Coldwater Canyon Avenue, the width increases to 100 feet. The surface of the median is exposed soil covered in wood chips, with the exception of the portion of the right-of-way between Whitsett Avenue and Bellaire Avenue, which is exposed soil and sand.

Billboards ~~are~~ were located in the median at Laurel Canyon Boulevard and Whitsett Avenue during the inventory phase of the Draft EIS/EIR. Since the inventory, the billboards in this area have been removed. Single- and multifamily residences front onto Chandler Boulevard and have views of the median right-of-way across the street. ~~Three~~ Five religious institutions, Aish Hatorah, Chabad of North Hollywood, ~~and~~ Shaarey Zedek Congregation, Yad Avraham, and Toras Hashem, and ~~one~~ two schools, Emek Hebrew Academy and Valley Hillel School, are located in this area. Residents of the dwelling units and people visiting the religious institutions and school are considered highly sensitive viewers. All viewers are separated from the right-of-way on either side by two lanes of traffic and one parking lane.

Key views of the Santa Monica and Santa Susana Mountains can be seen from Whitsett and Coldwater Canyon Avenues, but existing development blocks these views from the right-of-way. These views are of high quality and, where visible, can be seen by pedestrians and motorists traveling on these streets for up to five miles.

There are some mature trees and many newly planted trees along this portion of the right-of-way (see Table 4-17). From Laurel Canyon Boulevard to Ethel Avenue, there are approximately 25 mature palms and 10 bluegum eucalyptus trees along the edges of the right-of-way. The predominant trees in this area are young locust, London plane, and alleppo pine trees planted in rows along the right-of-way edges (see Figure 4-30). All of the eucalyptus trees appear to be infested with the red lerp psyllid and have leafless branches. Some of the trees are entirely leafless. Remnants of the previous rail operations remain in some areas.

No visual resources are located in this visual assessment unit.

Visual Assessment Unit C - The median right-of-way west of Whitsett Avenue

Visual Assessment Unit D - The MTA ROW south of Burbank Boulevard

Source: Gruen Associates, 2000.

Figure 4-30: Existing Character of the MTA ROW, East Valley

d. Visual Assessment Unit D (Diagonal ~~SP~~ MTA ROW – Ethel Avenue to Woodman Avenue)

Visual Assessment Unit D			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Residents/High	Short	None

At Ethel Avenue, the alignment transitions from the Chandler Boulevard median into an exclusive right-of-way that travels behind single-family dwellings. The ~~SP~~ MTA ROW varies in width in this visual assessment unit. Several homes located just south of Oxnard Street are leasing additional rear yard space in the right-of-way, which reduces the ~~width~~ open area of the ~~SP~~ MTA ROW from 100 feet to 70 feet along a 400-foot length between Ethel and Fulton Avenues. At Fulton Avenue, the width of the ~~SP~~ MTA ROW increases to 225 feet. The right-of-way returns to 100 feet in width at a point approximately ½ mile northwest of the intersection of Fulton and Burbank Avenues. For a portion of this section, there are 30-foot rear yard leases on either side of the right-of-way. The right-of-way is primarily exposed soil in this area, with some trees and shrubs growing along both edges, and some broken glass along the rails.

There are several new homes on the west side of Ethel Avenue which are adjacent to the right-of-way (see Figure 4-30). Residents of these houses have views of the right-of-way from their second-story rear windows. Motorists and pedestrians traveling on Fulton Avenue have views of the Santa Monica and Santa Susana Mountains. North of Burbank Boulevard, a lumber company occupies the right-of-way. Stacked lumber, trucks and other warehousing equipment are visible in the right-of-way.

Mature trees and fencing are located along the edges of the right-of-way in this area. These provide a dense screen between residential rear yards and the right-of-way. There are a variety of tree types, including palms, willows, ash trees, trees of heaven, apricot and pecan trees (see Table 4-17).

There are no visual resources in this visual assessment unit.

e. Visual Assessment Unit E (~~SP~~ MTA ROW –Woodman Avenue to Hazeltine Avenue)

Visual Assessment Unit E			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Residents/High	Short	None

Between Woodman Avenue and Hazeltine Avenue the alignment passes adjacent to the rear property lines of multifamily uses to the south and a mixed single- and multifamily neighborhood to the north (see Figure 4-31). The ~~SP~~ MTA ROW is 100 feet wide in this area. There is a large amount of broken glass on the ground, and graffiti on walls abutting the right-of-way.

Rear yard fences block residents' views of the right-of-way from single-family houses and first-floor apartments in the multifamily buildings. Residents of second and third floor units have views looking down onto the right-of-way. Single-family and multifamily residents are considered highly sensitive viewers. Motorists and pedestrians traveling on Woodman and Hazeltine Avenues have views of the Santa Monica and Santa Susana Mountains.

On the north side of the right-of-way, there are several residential streets that dead-end at the right-of-way. Mature trees and shrubs are growing at these intersections, as well as along the edges of the right-of-way. Tree types growing in this area include palm, Italian cypress, almond, ash, and ficus trees (see Table 4-17).

No important visual resources are located in this visual assessment unit.

f. Visual Assessment Unit F (~~SP~~ MTA ROW – Hazeltine Avenue to Sepulveda Boulevard)

Visual Assessment Unit F			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Workers/Low	Short	None

The visual character of this segment is dominated by the industrial uses along the right-of-way (see Figure 4-31). Throughout most of this portion, the right-of-way is completely built out with used car lots and other industrial/commercial uses. Adjacent to the right-of-way are auto repair shops, a recycling yard, oil storage, and other industrial/commercial uses. Views of the Santa Monica and Santa Susana Mountains can be seen along Van Nuys and Sepulveda Boulevards. There is no vegetation in this area.

No visual resources are located in this visual assessment unit.

Visual Assessment Unit E - The MTA ROW east of Hazeltine Avenue

Visual Assessment Unit F - The MTA ROWwest of Van Nuys Boulevard

Source: Gruen Associates, 2000.

Figure 4-31: Existing Character of the MTA ROW, East Valley

g. Visual Assessment Unit G (~~SP~~ MTA ROW – Sepulveda Boulevard to Haskell Avenue)

Visual Assessment Unit G			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Residents/High	Short	None

West of the proposed Sepulveda station, the alignment passes behind industrial and commercial buildings before following the I-405 freeway and passing adjacent to the rear property lines of approximately 20 single-family houses. The right-of-way passes under the I-405 freeway to Haskell Avenue and the Sepulveda Dam Recreation Area. The right-of-way is primarily used for storage along the length of this visual assessment unit (see Figure 4-32).

Views of the right-of-way are currently blocked by rear yard fences and landscaping. Residents have filtered views of the I-405 freeway from over their rear yard fences.
There are no visual resources in this visual assessment unit.

h. Visual Assessment Unit H (~~SP~~ MTA ROW – Haskell Avenue to Balboa Boulevard)

Visual Assessment Unit H			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
High	Recreation Area Users/High	Long	Coast Live Oaks Sepulveda Dam Recreation Area

The Sepulveda Dam Recreation Area to the south of the ~~SP~~ MTA ROW dominates the visual character of this segment. In this visual assessment unit, the ~~SP~~ MTA ROW runs parallel to the seven-lane Victory Boulevard to its north, and is separated from traffic lanes by a wide strip of land with a meandering bike path. Both Balboa Boulevard and Woodley Avenue south of Victory Boulevard (extending to Burbank Boulevard) are designated scenic highways in the City of Los Angeles General Plan. East of Balboa the right-of-way passes behind a City of Los Angeles park-and-ride lot.

From the ~~SP~~ MTA ROW and the surrounding area, there are views of the Santa Monica Mountains to the south, across the open space of the Sepulveda Dam Recreation Area, and of the Santa Susana Mountains to the north, along Woodley Avenue and Balboa Boulevard.

Visual Assessment Unit G - The MTA ROW west of Sepulveda Boulevard

Visual Assessment Unit H - The MTA ROW east of Woodley Avenue

Source: Gruen Associates, 2000.

Figure 4-32: Existing Character of the MTA ROW, West Valley

There are some shrubs, mature trees and palms along the right-of-way, which is mostly exposed soil (see Figure 4-32). There are some native coast live oak trees along this portion of the right-of-way (see Table 4-17). Most of the vegetation is growing along the edges of the right-of-way, especially along a drainage channel on the south edge, which slopes away from the project location.

Visual resources in this visual assessment unit consist of views of the Sepulveda Dam Recreation Area.

i. Visual Assessment Unit I (~~SP~~ MTA ROW – Balboa Boulevard to White Oak Avenue)

Visual Assessment Unit I			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
High	Recreation Area Users/High	Long	Palms Sepulveda Dam Recreation Area

West of Balboa Boulevard, the ~~SP~~ MTA ROW passes behind an office building complex, and there is a row of approximately 50 young crepe myrtle trees between the right-of-way and the office buildings' parking lots. West of the office building, the right-of-way curves southwest across the Recreation Area, crossing the Los Angeles River where it transitions from a concrete culvert to a vegetated riverbed, and straightening at Oxnard Street just east of White Oak Avenue. (See Figure 4-33.)

From the ~~SP~~ MTA ROW and the surrounding area, there are views of the Santa Monica Mountains to the south, across the open space of the Sepulveda Dam Recreation Area, and of the Santa Susana Mountains to the north, along Balboa Boulevard and White Oak Avenue.

The majority of the trees growing in this area are palms (see Table 4-17). Trees are primarily located along the edge of the ~~SP~~ MTA ROW.

Visual Assessment Unit I - The MTA ROW west of Balboa Boulevard

Visual Assessment Unit J - Oxnard Street and the MTA ROW, east of Lindley Avenue

Source: Gruen Associates, 2000.

Figure 4-33: Existing Character of the MTA ROW, West Valley

j. Visual Assessment Unit J (~~SP~~ MTA ROW – White Oak Avenue to Reseda Boulevard)

Visual Assessment Unit J			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Residents/High	Short	None

West of White Oak Avenue the ~~SP~~ MTA ROW parallels Oxnard Street. As far as Reseda Boulevard, the ~~SP~~ MTA ROW is a 100-foot wide strip of exposed soil north of Oxnard Street (see Figure 4-33). Uses on the south side of Oxnard Street and along the right-of-way are single-family residential.

Views of the right-of-way are generally blocked by rear yard fences and walls and by vegetation. Some two-story residences have views of the right-of-way from their upper windows. There are a few trees growing in the right-of-way along the northern edge (see Table 4-17).

There are no visual resources in this visual assessment unit.

k. Visual Assessment Unit K (~~SP~~ MTA ROW – Reseda Boulevard)

Visual Assessment Unit K			
Visual Quality	Viewer Group/ Viewer Sensitivity	View Duration	Visual Resources
Low	Workers/Low	Short	None

Immediately east of Reseda Boulevard, the ~~SP~~ MTA ROW widens to 225 feet and contains a lumberyard on leased land. To the west of the Boulevard, the right-of-way passes through other commercial/industrial uses before returning to the same character seen in visual assessment unit J, between White Oak Avenue and Reseda Boulevard. In this visual assessment unit, the right-of-way is completely covered by industrial and commercial uses (see Figure 4-34).

Along Reseda Boulevard there are views of the Santa Monica and Santa Susana Mountains. The intersection of the right-of-way and Reseda Boulevard is dominated by single-story commercial uses, and there is no existing landscaping.

There are no visual resources in this visual assessment unit.

Visual Assessment Unit K - The MTA ROW at Reseda Boulevard

Visual Assessment Unit L - The MTA ROW west of Tampa Avenue

Source: Gruen Associates, 2000.

Figure 4-34: Existing Character of the MTA ROW, West Valley

l. Visual Assessment Unit L (~~SP~~ MTA ROW – Reseda Boulevard to Winnetka Avenue)

Visual Assessment Unit L			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Low	Residents/High	Short	None

At Cahill Avenue, west of Reseda Boulevard, the ~~SP~~ MTA ROW runs along the north side of Topham Street, which is the northwest-bound extension of Oxnard Street (see Figure 4-34). Topham Street ends at Victory Boulevard, and the ~~SP~~ MTA ROW continues across Victory Boulevard, paralleling it just west of Winnetka Avenue. East of Winnetka Avenue the ~~SP~~ MTA ROW passes behind sports fields to the south and the rear yards of single-family homes continue to line the right-of-way on its north edge. In this visual assessment unit, the ~~SP~~ MTA ROW is a 100-foot wide strip of exposed soil with rails, rail ties and no trespassing signs, as in visual assessment unit J, from White Oak Avenue to Reseda Boulevard. There is some vegetation growing along property lines along the north edge of the right-of-way.

Residents' views of the right-of-way are blocked by fences, walls, and mature shrubs and other vegetation. Along the north side of the right-of-way, residential rear yards abut the right-of-way. Residents along the south side of Topham Street view the right-of-way from across two lanes of traffic.

Immediately west of the developed portion of the right-of-way at Reseda Boulevard, there are two mature California pepper trees growing in the right-of-way. There are other mature trees in the right-of-way, including palms, trees of heaven, grey pinion cypress, ash, and Brazilian pepper trees (see Table 4-17). There are several mature palms in the right-of-way at Victory Boulevard.

There are no visual resources in this visual assessment unit.

m. Visual Assessment Unit M (~~SP~~ MTA ROW – Winnetka Avenue to Variel Avenue: Pierce College)

Visual Assessment Unit M			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
High	Residents/High	Long	Fields (Pierce College Campus)

West of Winnetka Avenue, the ~~SP~~ MTA ROW runs parallel to the north side of 7-lane Victory Boulevard until west of the proposed De Soto station. To the south of Victory Boulevard lies

Pierce College. Along this portion of the alignment, the right-of-way is exposed soil with rails and little vegetation.

Between Mason and De Soto, southward views from Victory open up across a view of the rolling agricultural fields of Pierce College campus and the Santa Monica mountains to the south. Residents and students are viewers of high sensitivity in this area. Patrons of the commercial strips to the west of De Soto are viewers of medium sensitivity. Views of the Santa Susana Mountains can be seen to the north along Mason and De Soto Avenues. The right-of-way is visible from a low-rise building at the southern edge of the Pierce College campus.

The rear yards of single-family homes to the north are shielded by thick vegetation (see Figure 4-6.8). Immediately west of Winnetka Avenue there are mature palms growing in the right-of-way.

Visual resources in this visual assessment unit consist of views of the Pierce College campus.

n. Visual Assessment Unit N (Victory Boulevard – Variel Avenue to Owensmouth Avenue Terminus)

Visual Assessment Unit N			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Medium	Workers and Visitors/Medium	Short	None

This segment of the alignment is on street, along Victory Boulevard and Owensmouth Avenue. Large-scale commercial retail and office buildings dominate the visual character of this segment of the alignment. There is some multifamily housing along Owensmouth Avenue north of Erwin Street. The terminus is adjacent to the Promenade Mall on Owensmouth Avenue between Erwin Street and Oxnard Street (see Figure 4-35). Surface parking surrounds the mall.

Viewers in this visual assessment unit are mostly of low or medium sensitivity, with some high sensitivity viewers, and there are no unique or sensitive views or visual features. The Santa Susana and Santa Monica Mountains can be seen from Owensmouth Avenue.

On the east side of Owensmouth Avenue there is an office park with manicured lawns and mature trees adjacent to the street. Owensmouth Avenue is a designated parkway and additional street trees are planned to supplement the existing mature eucalyptus trees that line the street. The Warner Center Specific Plan also calls for the planting of street trees along Victory Boulevard.

There are no visual resources in this visual assessment unit.

Visual Assessment Unit M - The MTA ROW and Victory Boulevard, west of Mason Avenue

Visual Assessment Unit N - Owensmouth Terminus

Source: Gruen Associates, 2000.

Figure 4-35: Existing Character of the MTA ROW, West Valley

4-6.1.3 Lankershim/Oxnard On-Street Alignment and Weekend Service Variation of the BRT on Lankershim/Oxnard

a. Visual Assessment Unit O (Lankershim Boulevard & Oxnard Street)

Visual Assessment Unit O			
Visual Quality	**Viewer Group/ Viewer Sensitivity**	**View Duration**	**Visual Resources**
Medium	Workers and Visitors/ Medium	Short	None

This visual assessment unit describes the On-Street Alignment along Lankershim Boulevard and Oxnard Street and the Weekend Service Variation of the BRT along Lankershim/Oxnard. There is existing transit service along these streets. Lankershim Boulevard is developed with office and commercial uses. The visual character along Oxnard Street from Lankershim Boulevard to Woodman Avenue is characterized by a large number of single-family dwellings that face onto the street, mixed with clusters of multifamily uses. The alignment passes Grant High School, Laurel Hall School, and the campus of Valley College. It also passes the Assemblies of God Church at Burbank Boulevard and Lankershim Boulevard. Small commercial buildings are located at Laurel Canyon Boulevard and at Woodman Avenue.

Residents of single-family and multifamily dwellings are considered to have high sensitivity, as are students at the three schools. Individuals working in office and commercial buildings are of medium sensitivity. Workers and patrons at commercial buildings have low sensitivity. Key views of the Santa Monica Mountains and Santa Susana Mountains can be seen along Lankershim Boulevard.

There are existing streetlights providing ambient lighting. Overhead wires and power poles dominate the view along this segment. (See Figure 4-36.)

No visual resources are located in this visual assessment unit.

4-6.1.4 Minimum Operable Segment (MOS)

Under the Minimum Operable Segment (MOS), the alignment of the project would follow the ~~SP~~ MTA ROW in visual assessment units E, F, G, and H. In this alternative, buses traveling in mixed flow traffic would transition from Oxnard Street to the ~~SP~~ MTA ROW at Woodman Avenue. Buses would leave the ~~SP~~ MTA ROW at Victory Boulevard immediately west of Balboa Boulevard.

Visual Assessment Unit O - Oxnard Street at Fulton Avenue

Figure 4-36: Existing Character of the Lankershim / Oxnard On-Street Alignment

Source: Gruen Associates, 2000.

4-6.1.5 Station Areas

a. ~~SP~~ MTA ROW Alignment

❑ North Hollywood

The visual character of the station area is defined by Lankershim and Chandler Boulevards, one-story commercial and industrial uses, and by the Metro Rail Red Line Station. In the right-of-way on the west side of Lankershim Boulevard stands the historic Lankershim rail depot (see Figure 4-6.10). On the east side of Lankershim Boulevard there are a station portal and a newly landscaped transit plaza at the Red Line station and there is parking behind the plaza and a bus turn-around with access from Fair Avenue, a block east of Lankershim Boulevard. The area surrounding the station is characterized by Lankershim Elementary School and other public and commercial uses to the south of the station. To the north of the station, Lankershim Boulevard and Tujunga Avenue are commercial strips with residential areas on smaller streets. The North Hollywood Park is approximately 800 feet west of the station area. There are mountain views to the south and east from the station. There are new palm trees planted around the station portal. The entire rail and bus station is currently lit at night. There are no visual resources at this station other than the Lankershim depot.

❑ Laurel Canyon

This station would be located in the right-of-way in the Chandler Boulevard median, at the intersection of Chandler Boulevard and Laurel Canyon Boulevard, on both sides of Laurel Canyon Boulevard. The visual character of the intersection is defined by the dual roadways and median of Chandler Boulevard, intersecting Laurel Canyon Boulevard, and is dominated by one-story commercial uses, the ~~four~~ three-story Valley Village Senior Apartments, and a four-story office building. In the surrounding area, the visual character is that of a mixed single- and multifamily residential neighborhood. Highly sensitive land uses include the residential care facility and the single-family houses. Unique views of the Santa Monica and Santa Susana Mountains can be seen from Laurel Canyon Boulevard. There ~~are~~ were billboards in the right-of-way during the inventory phase of the Draft EIS/EIR ~~which~~ that were ~~are slated for removal~~ removed by the billboard ~~company~~ companies in August and September 2000. There is no existing landscaping at the station site. There is one palm tree growing in the right-of-way on the location of the westbound station. No lighting fixtures are currently located on the station site. (See Figure 4-37.) There are no visual resources at this station.

❑ Valley College

This station site is at the southeast corner of the intersection of Burbank Boulevard and Fulton Avenue (see Figure 4-6.11). The visual character of the immediate station area is characterized by low-intensity commercial development at the Fulton/Burbank intersection, the parking lot of the Valley College campus across the street on the north side of Burbank Boulevard, and auto body shops adjacent to the station south of Burbank Boulevard. There is a lumberyard occupying a leased portion of the right-of-way on the west side of the intersection, across Fulton

Site of North Hollywood station

Site of westbound Laurel Canyon station

Source: Gruen Associates, 2000.

Figure 4-37: Proposed Station Sites, East Valley

Avenue and Burbank Boulevard from the proposed station. The surrounding neighborhood consists primarily of single-family homes on quiet streets and culs de sac. Views of the Santa Monica and Santa Susana Mountains can be seen to the north and south along Fulton Avenue. There are three existing mature trees on the station site. Lighting in the campus parking lot is provided until approximately 10 p.m. on weekday evenings. No visual resources are present at this location.

❑ Woodman

The Woodman station would be located in the right-of-way southeast of the intersection of Woodman Avenue and Oxnard Street. The visual character in the immediate area is defined by Woodman Avenue and Oxnard Street and is dominated by small-scale one-story commercial uses with surface parking, some of which lie in the right-of-way (see Figure 4-38). Two- and three-story multifamily residential uses extend along the south side of the right-of-way west of the station and there are single-family homes along the north side of the right-of-way west of the station. The visual character within a one-quarter mile radius of the station is dominated by single-family residential neighborhoods, with multifamily residential uses clustered along Woodman Avenue and Oxnard Street. There are mountain views from Woodman Avenue. There are some existing oleander bushes in the right-of-way east of Woodman Avenue and north of Oxnard Street. There are two mature palm trees in the right-of-way west of Woodman Avenue. There are no visual resources at this station.

❑ Van Nuys

The Van Nuys station site is on the east side of Van Nuys Boulevard, a wide thoroughfare, north of Oxnard Street. The site is currently occupied by a used car lot. South of Oxnard Street are single-family residential neighborhoods. However, the visual character of this station area is dominated by adjacent industrial and commercial uses and, to the north, the eight- to ten-story buildings in the Van Nuys Civic Center. No visually sensitive uses are located in proximity to the station. Views of the Santa Monica and Santa Susana Mountains can be seen along Van Nuys Boulevard. Streetlights on Van Nuys Boulevard create a level of ambient lighting typical of a major commercial thoroughfare. The portion of the right-of-way on the east side of Van Nuys Boulevard that is currently used for automobile storage is lit throughout the nighttime hours. (See Figure 4-39.) No visual resources can be seen from the station site in the right-of-way.

❑ Sepulveda

Large industrial and warehouse uses, a five-story office building, large retail uses, and the single-family Cameron Woods neighborhood characterize the visual environment at the proposed Sepulveda station site, which is located in the right-of-way on the west side of Sepulveda Boulevard, a major thoroughfare, just east of I-405 (see Figure 4-39). No high-sensitivity uses are located adjacent to the station. However, there are single-family residences across Erwin Street from the entrance to the proposed park and ride lot, which is currently used for vehicle storage. There is an access road, connecting Erwin Street to Sepulveda Boulevard, which passes

Site of Valley College station

Site of Woodman station

Source: Gruen Associates, 2000.

Figure 4-38: Proposed Station Sites, East Valley

Site of Van Nuys station

Site of Sepulveda station

Source: Gruen Associates, 2000.

Figure 4-39: Proposed Station Sites, East Valley

behind the large-scale commercial uses immediately north of the station site. A five-story office building on the southeast corner of Sepulveda Boulevard and the right-of-way represents a medium-sensitivity use within the station area. Views of the Santa Monica and Santa Susana Mountains can be seen along Sepulveda Boulevard. There is one mature palm tree growing on the station site. No visual resources are located in the station area.

❑ Woodley

This station is located on both the east and west sides of Woodley Avenue in the right-of-way immediately south of Victory Boulevard, a major thoroughfare. The visual character of this station area is dominated by small-scale one-story commercial uses with surface parking on the north side of Victory Boulevard. North of these commercial areas are single-family residential neighborhoods. To the southwest is a U.S. Army Reserve facility, and beyond that lies access to the Woodley Golf Course. To the southeast is the Sepulveda Air National Guard station. There is a bicycle path between the right-of-way and Victory Boulevard. Views of the Santa Monica Mountains can be seen along Woodley Avenue and across the Recreation Area to the south. The Santa Susana Mountains are visible to the north along Woodley Avenue. There are mature trees along the bicycle path on the north side of the right-of-way and along the south edge of the right-of-way, with shrubs and grasses growing in the right-of-way. (See Figure 4-40.) There are no visual resources in the station area.

❑ Balboa

The Balboa station site is located on the south edge of the existing LADOT park and ride lot at the corner of Balboa and Victory Boulevards (see Figure 4-40), both of which are major streets. The park and ride lot is partially paved, and there are a number of trailers along its south edge. There is some new landscaping and young trees along its north and west edges. South of the park and ride lot, the rails have been removed from the right-of-way and it is indistinguishable from the Sepulveda Dam Recreation Area to its south. The immediate station area is diverse in its visual character. To the northwest of the intersection, mature pine trees partially veil the view of the bleachers and sports facilities at Birmingham High School. To the northeast is one-story small-scale commercial development with surface parking, and multifamily housing along Balboa Boulevard. Streets off of Balboa Boulevard northeast of the station are of a single-family residential character. To the southwest are a group of four-story office buildings with parking and a row of young crepe myrtle trees along the right-of-way. The bike path along Victory Boulevard curves south along Balboa Boulevard, which is lined with tall, mature trees south through the Sepulveda Dam Recreation Area. Views of the Santa Monica Mountains are visible to the south across the Recreation Area, and the Santa Susana Mountains can be seen north along Balboa Boulevard. No visual resources are located in the station area.

❑ Reseda

This station site is located on the northeast corner of the intersection of Reseda Boulevard, a major thoroughfare, and Oxnard Street. The visual character of this station area is characterized by one- and two-story commercial structures (see Figure 4-41). A lumberyard and a sash and

Site of westbound Woodley station

Site of Balboa station

Source: Gruen Associates, 2000.

Figure 4-40: Proposed Station Sites, West Valley

Site of eastbound Reseda station

Site of eastbound Tampa station

Source: Gruen Associates, 2000.

Figure 4-41: Proposed Station Sites, West Valley

door supplier occupy leased portions of the right-of-way on either side of Reseda Boulevard. To the north and south of the right-of-way are one-story commercial buildings with surface parking.

The neighborhoods to the north of this commercial area are a mixture of single- and multifamily residential and the neighborhoods to the south are multifamily residential. There is no existing vegetation in the immediate station area. There are no visual resources at this station.

❑ Tampa

The Tampa station site is located in the right-of-way along the north side of Topham Street at Tampa Avenue. The area around the station is defined by Tampa Avenue and Topham Street and is dominated by single-family residential neighborhoods. In the immediate station vicinity, there are single-family homes to the north, their yards facing the right-of-way and blocked from view by walls and thick vegetation. To the southeast lies a vacant lot covered in overgrown grasses and a small one-story commercial structure (see Figure 4-41). To the southwest are a three-story office building and the Woodcrest elementary school. The mountains can be seen to the north and south along Tampa Avenue. There are streetlights along Tampa Avenue and Topham Street. There are no visual resources at this site.

❑ Pierce College

There are two station locations under consideration for Pierce College. The baseline location is at the intersection of Mason Avenue and Victory Boulevard, and the alternative location is at Winnetka Avenue and the MTA ROW (just north of Victory Boulevard).

The visual character of ~~this~~ the station, at the intersection of Mason Avenue and Victory Boulevard, is dominated by Pierce College campus to the south and single-family residences to the north. The residences' rear yards face the right-of-way and are blocked by walls and vegetation. At Pierce College, the area around buildings is lush and features several mature trees, while fields to the southwest have an agrarian character. Campus buildings are buffered from the station site by Victory Boulevard and by several hundred feet of campus parking lots (see Figure 4-42). The fields of Pierce College are a unique rural view, and the only visual resource at this station site.

The visual character of the station at Winnetka Avenue is similar to the Pierce College station at Mason Avenue. The proposed Winnetka Avenue station design, however, also includes a park-and-ride on Pierce College's Child Development Center site west of Winnetka Avenue, between Victory Boulevard and the MTA ROW. The Child Development Center site consists of one-story temporary structures, play equipment, and a cluster of shade trees and palm trees located near the structures. The remainder of the site is an open undeveloped lot. East of Winnetka Avenue between the ROW and Victory Boulevard are baseball fields and unpaved parking areas.

Similar to the Mason Avenue station, the visual character south of Victory Boulevard is dominated by institutional uses such as Pierce College and the West Valley Adult Occupational

Site of westbound Pierce College (Winnetka Avenue) station

Site of eastbound Pierce College (Mason Avenue) station

Source: Gruen Associates, 2001.

Figure 4-42: Proposed Station Site, West Valley

Center. The institutional buildings are buffered from the street by Pierce College recreational fields and parking lots for the Occupational Center. North of the MTA ROW are single-family residences, primarily one-story, that are buffered from the MTA ROW by solid walls and tall vegetation. Views of Pierce College from surrounding residential uses are blocked at this site by existing structures and landscaping. There are no visual resources at this site.

❑ De Soto

At the proposed De Soto station, located at the intersection of De Soto Avenue and Victory Boulevard, the visual character is varied. To the northwest, multifamily residential dominates. Structures are typically two stories, with no setbacks or vegetation. To the northeast lies a single-family neighborhood, screened from view by rear yard walls and vegetation. To the southeast, the agricultural fields of Pierce College give way to views beyond of the Santa Monica Mountains. To the southwest is a one-story commercial structure with surface parking, with views of Warner Center to the west. There is some existing vegetation in the right-of-way, including mature palms (see Figure 4-42). The fields of Pierce College are a unique rural view in this area, and the only important visual resource at this station site.

❑ Warner Center Transit Hub

The proposed west terminus of the project is located on Owensmouth Avenue, between Erwin and Oxnard Streets. There are existing curbside bus stops at this location (see Figure 4-43). The immediate station area is commercially oriented, with a mall and surface parking on the west side of Owensmouth Avenue and office buildings with open space and surface parking on the east side of Owensmouth. North of Erwin Street there is some multifamily housing, however the Warner Center area is predominantly commercial in character. Owensmouth Avenue is a Warner Center Specific Plan-designated parkway, and is planted with mature Red Ironbark eucalyptus trees.

b. Lankershim/Oxnard On-Street Alignment

❑ Laurel Canyon Boulevard at Oxnard Street

The visual character of this station is established by the older auto-related and other commercial uses at the intersection of Laurel Canyon Boulevard and Oxnard Street, overhead power lines, and the elevated SR 170 Hollywood Freeway (Figure Figure 4-44). The busway in this area would be on-street and the proposed stations would be similar to those station stops used for the Metro Rapid Bus on Ventura Boulevard. The westbound on-street stop would be on Oxnard Street just west of the SR 170 Hollywood Freeway overpass and the eastbound stop on Oxnard Street just east of the intersection with Laurel Canyon Boulevard.

~~The visual character of this station is established by Laurel Plaza Shopping Center, SR-170, and Laurel Hall School and Emmanuel Lutheran Church, both of which are on the north side of Oxnard Street to the east of the station at Radford Avenue. The alignment in this area is on street, and the proposed station site is currently developed as an LADOT park and ride lot at the~~

Site of westbound De Soto station

Source: Gruen Associates, 2000.

Figure 4-43: Proposed Station Site, West Valley

Site of Laurel Canyon station on the Lankershim/Oxnard On-Street Alignment

Site of eastbound Valley College station on the Lankershim/Oxnard On-Street Alignment

Source: Gruen Associates, 2000.

Figure 4-44: Proposed Station Sites, Lankershim / Oxnard On-Street Alignment

~~intersection of Oxnard Street and SR-170 (see~~ Figure 4-44~~). There is a school on the north side of Oxnard Street across from the station, however it would be separated from the station by four lanes of traffic along Oxnard Street and by an SR-170 entrance and exit ramp.~~ No sensitive viewers are immediately adjacent to the station area. Unique mountain views can be seen along Laurel Canyon Boulevard to the west of the station. There are no visual resources at this location~~. Parking and security lighting are currently utilized in the parking lots during nighttime hours.~~

❑ Valley College (Fulton Avenue at Oxnard Street)

This station site is on-street at the intersection of Oxnard Street and Fulton Avenue, just north of the Valley College main entrance on Fulton Avenue (see Figure 4-44). The visual character in the immediate vicinity of the station site is defined by the two-story, multifamily residential buildings lining Oxnard Street and by the landscaped parking lots at the northern edge of the Valley College campus. Highly sensitive uses in proximity to the station site consist of single-family residential neighborhoods south along Fulton Avenue and west along Oxnard Street, and the multifamily housing north along Fulton Avenue and east along Oxnard Street. Important views of the mountains to the north and south can be seen along Fulton Avenue. Lighting is currently provided in the campus parking lot until approximately 10 p.m. on weekday evenings. Security lighting is provided around campus buildings every night, throughout the nighttime hours.

❑ Woodman

This station site is located on-street on Oxnard Street. The westbound stop would be in the vicinity of Buffalo Street. Direct access from Buffalo Street to Oxnard Street will be closed. The eastbound stop would be on Oxnard Street just east of the MTA ROW adjacent to a single-family home, a sensitive viewer. The visual character of this area includes one-story neighborhood shopping facilities near the intersection of Woodman Avenue and Oxnard Street, a residential neighborhood of single-family homes separated from Oxnard Street by a landscaped median and a frontage road on the north, and single-family homes fronting on Oxnard Street on the south. There are mountain views from Woodman Avenue. There are no visual resources at this station.

4-6.2 Impact Analysis Methodology and Evaluation Criteria

The process used in this visual impact assessment generally follows the Federal Highway Administration (FHWA) guidelines for assessing visual impacts of transportation projects, as outlined in *Visual Impact Assessment for Highway Projects* (March 1981). This analysis is intended to satisfy the provisions of the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA), insofar as consideration of visual and aesthetic effects are concerned. NEPA states that it is the "continuous responsibility" of the federal government to "use all practical means" to "assure for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings."

For the following analysis, a visual impact would be considered adverse under NEPA (significant under CEQA) occur if the proposed project:

- Introduces a new visual element that would be incompatible with, or be out of scale with the existing visual character of the study area.
- Introduces elements that would degrade an important viewshed of highly sensitive viewers.
- Alters or obstructs the character of key and/or aesthetic views.
- Obstructs the use of existing windows. If the proposed project introduces a physical structure so close to a residence or commercial building such that it would completely eliminate the view from that window, an adverse impact under NEPA (significant impact under CEQA) would occur regardless of the quality of the view.
- Results in the loss of important or substantial landscape materials, particularly mature trees.
- Results in light intrusion on residences, increased glare for motorists or pedestrians, or substantial shade or shadow on sensitive receptors such as residences, schools, parks, and residential care facilities.

4-6.3 Impacts

This section describes the impacts the proposed project would have on existing visual and aesthetic conditions along the Transit Corridor. In general, the visual impacts of the BRT Alternative would be minimal. An existing abandoned rail corridor covered in weeds and broken glass would be landscaped, industrial leases terminated, and a busway and aesthetically unobtrusive stations constructed. In the following sections, visual impacts are organized by four areas: (1) general impacts, (2) impacts along the ~~SP~~ MTA ROW alignment, (3) impacts along the Lankershim/Oxnard On-Street alignment, and (4) impacts in station areas.

4-6.3.1 General Impacts

a. Compatibility and Views

The proposed project would consist of an at-grade roadway, at-grade crossings, new landscaping, and one-story stations spaced approximately one mile apart. Most elements would be at-grade and would not materially change the visual character of the area. Introduced elements would not be visible to highly sensitive viewers nor alter or obstruct the character of key views, including distant views of mountains.

In most cases, stations would be located in areas adjoining existing streets with multifamily, commercial, or industrial development and all would be in scale with existing arrangements and would not obstruct the character of key views. Stations, landscaping, lighting at stations, soundwalls, and street furniture would be the only new vertical elements introduced along the right-of-way. The introduction of these new elements would be compatible with the existing visual and landscape character of the area. In addition, the conceptual design of the project alternatives, including landscaping, bike and pedestrian paths, and walls, where appropriate, reduces the potential for visual and aesthetic impacts that are adverse under NEPA (significant under CEQA).

b. Existing Mature Trees

The construction of the project would result in the loss of up to 420 existing trees. Along the Chandler Boulevard median, most mature and recently planted trees would be maintained, with the exception of some trees in the Chandler Boulevard median that would be removed to accommodate the ~~transition of the project from an on-street alignment to the Chandler Boulevard median at Camellia Avenue, and to the off-street right-of-way at Ethel Avenue~~ addition of left-turn lanes and the realignment of Chandler Boulevard near Ethel Avenue. Existing eucalyptus trees are already under stress~~,~~ and some have been recently removed; however, where possible, ~~they~~ those remaining would be preserved. Trees or their root systems may be damaged by construction activity, and these would be replaced.

As listed in Table 4-17, portions of the right-of-way contain mature trees that could be affected by busway construction. These trees are typically located near the edges of the right-of-way. Where the right-of-way passes behind the rear yards of residences, existing trees growing along the edge of the right-of-way might need to be removed in order to construct a berm and/or a wall/fence. Where feasible, these existing trees would be maintained, particularly where existing trees are thick enough to adequately buffer adjacent residents from the visual impacts of the project. Trees removed would be replaced at a minimum 1:1 ratio in the right-of-way. In industrial areas, existing trees along the right-of-way generally would be maintained, where possible, as additional structural buffers such as a fence or wall would not be necessary in industrial areas.

Approximately 4,000 trees would be planted along the length of the project, which is considerably more than the number of trees which will be removed. These new trees would be planted in rows, spaced approximately 35 to 40 feet apart, on either side of the right-of-way.

c. Lighting and Glare

The construction of the project would result in the installation of additional lighting at station areas. There is existing nighttime street lighting at these stations, so impacts would be minimal. Where residential uses are adjacent to station areas, lighting will be designed and placed in such a way as to minimize glare and nighttime light intrusion on residences. New street trees will be planted to further minimize the impacts of street lighting at station areas. There will be limited additional lighting planned along the right-of-way between station areas. The impact of bus

headlights on residents along the busway will be minimal due to planned landscape improvements and fences/walls.

4-6.3.2 ~~SP~~ MTA ROW Alignment

a. Visual Assessment Unit A (Chandler Boulevard – Lankershim Boulevard to Camellia Avenue)

~~East of Camellia Avenue the project could either be on street along the north edge of North Hollywood Park or within the right-of-way in the Chandler Boulevard median, depending on the North Hollywood terminus alternative selected. An on street project would be compatible with the existing and historic character of Chandler Boulevard as an urban roadway and bus transit line. Approximately 3 eucalyptus trees in the existing grove in the right-of-way median would be removed in order for the project to transition from on street to the median right-of-way.~~ The historic Lankershim Depot is located in this assessment area on North Chandler Boulevard just west of Lankershim Boulevard. See Section 4-6.3.4 for a discussion of impacts on the historic Lankershim Depot. A project in the Chandler Boulevard median would ~~also~~ be compatible with the historic character of the median as a transportation right-of-way. Any tree removed will be replaced in the median, where possible. The visual impacts along this segment would not be adverse under NEPA (significant under CEQA).

b. Visual Assessment Units B & C (Chandler Boulevard – Camellia Avenue to Ethel Avenue)

The MTA currently runs bus service as far west as Whitsett Avenue. Views of the median project would be visible across Chandler Boulevard from the commercial/industrial uses to the north and from North Hollywood Park to the south. Users of the Park are considered sensitive viewers along this portion of the alignment. Views of the right-of-way from the Park are filtered by existing street traffic, and new landscaping and new and existing trees would additionally block views across Chandler Boulevard.

There are other highly sensitive viewers along this segment, specifically residents of multifamily and single-family dwellings along Chandler Boulevard across from the median right-of-way, visitors to local religious institutions and users of North Hollywood High School recreation areas. These viewers would have views of the project across Chandler Boulevard, and there would be at least a 50-foot separation between the viewer and the edges of the project pavement. Existing trees and proposed ~~metal picket~~ wire mesh fences would filter views of the project across Chandler Boulevard.

Along the median right-of-way, existing trees would be maintained to the extent possible and landscaping along the median would be improved. Existing mature eucalyptus trees would be maintained based on a determination of the health and anticipated future life span of these mature eucalyptus trees. Recently planted trees along the edges of the right-of-way would be maintained or replaced in kind if damaged during construction or removed for left-turn lanes. Immediately east of Ethel Avenue, the right-of-way transitions from the median of Chandler

Boulevard to a 100-foot wide strip of land between residential rear yards. Between Ethel Avenue and Chandler Boulevard, eleven existing mature trees would need to be removed to accommodate a berm and/or a fence/wall near the residential rear yards. Existing trees would be maintained as much as practicable along the rear property lines of residences. Any one tree removed would be replaced by a new tree in the right-of-way. No adverse visual impacts under NEPA (significant visual impacts under CEQA) would occur in this segment.

c. Visual Assessment Units D & E (~~SP~~ MTA ROW – Ethel Avenue to Hazeltine Avenue)

There are highly sensitive viewers along the lengths of these visual assessment units. The right-of-way passes behind the rear yard fences and walls of single- and multifamily dwellings. Views of the right-of-way are blocked by rear yard fences and vegetation in many locations. The upper units of the multifamily buildings have views into the right-of-way. Existing vegetation would be maintained and landscaping along the project improved to reduce residents' views of the alignment and improve the aesthetic appearance of the right-of-way. Along both sides of the right-of-way there would be a landscaped berm or a fence/wall to minimize views of the project and protect residents from noise. In order to construct these buffers in these visual assessment units, it would be necessary to remove a number of the existing trees growing in the right-of-way. However, these trees would be replaced to ensure residents' views of the proposed project would be minimized. Visual impacts would not be adverse under NEPA (significant under CEQA).

d. Visual Assessment Units F & G (~~SP~~ MTA ROW – Hazeltine Avenue to Haskell Avenue)

This portion of the project would travel behind industrial uses to Sepulveda Boulevard, where the ~~SP~~ MTA ROW curves northwest behind single-family residences. The existing right-of-way is typically built-out with commercial/industrial uses. A fence and landscaping would be built around park and ride lots to prevent any negative visual impacts in this area. In the single-family residential neighborhood just east of I-405, the visual impacts of the project would be minimized with the use of a fence/wall and landscaping along the rear of the properties. As fences and walls already block the views from residences, there would be no adverse visual impacts under NEPA (significant visual impacts under CEQA) in residential areas and there would be beneficial visual effects under both NEPA and CEQA.

e. Visual Assessment Unit H & I (~~SP~~ MTA ROW – Haskell Avenue to White Oak Avenue)

The proposed project would be compatible with the existing urban character of Victory Boulevard. There is a bicycle path between the right-of-way and Victory Boulevard, which would be maintained. There are no other sensitive uses along this portion of the project. Single-family homes across Topham Street from the right-of-way would be more than 200 feet from the edge of the project pavement. Existing trees would be maintained where possible or replaced

and landscaping improved to remain consistent with the park-like quality of this portion of the right-of-way. Existing native coast live oak trees would not be affected. There would be no adverse visual impacts under NEPA (significant visual impacts under CEQA).

f. Visual Assessment Units J, K & L (White Oak Avenue to Winnetka Avenue)

This portion of the alignment follows Oxnard and Topham Streets along the rear yard fences and walls of single-family homes. ~~Space for a~~ A bikeway and pedestrian path ~~would be left along~~ are planned for the street side of the right-of-way~~,~~ and would be buffered from the street and project by new landscaping and trees ~~and a fence/wall along the project~~. This would minimize potentially adverse visual impacts under NEPA (potentially significant visual impacts under CEQA) on residences across the street from the right-of-way, along the south side of Oxnard and Topham Streets, ~~Residences along the south side of Oxnard and Topham Streets would be~~ more than 100 feet from the project. Along the north side of the right-of-way, a landscaped berm and/or a fence/wall and trees would minimize views from residences along the north side of the right-of-way. Existing vegetation is thick along the north side of the right-of-way, and would be maintained where possible. Where existing trees would be removed, to buffer residents' views of the project, the removed trees will be replaced by ~~at least three~~ new trees in the right-of-way. Visual impacts would not be adverse under NEPA (significant under CEQA).

g. Visual Assessment Unit M (~~SP~~ MTA ROW – Winnetka Avenue to Variel Avenue: Pierce College)

This portion of the project follows Victory Boulevard, continuing along the rear yard walls of single-family residences to the north of the project. Victory Boulevard is a busy road with six lanes of traffic and the project is compatible with the existing character. Residents' views of Victory Boulevard and of the right-of-way would be blocked by the existing thick vegetation along the rear yard walls. Existing mature trees would be maintained or if removed, replaced by new trees. New trees, and a landscaped berm/fence/wall would further minimize views from single-family residences along the north side of the right-of-way. The users of Pierce College to the south across Victory Boulevard are considered sensitive viewers, however their views of the project would be blocked by existing mature trees along Victory Boulevard, new trees, and by the width of the Boulevard itself. Visual impacts would not be adverse under NEPA (significant under CEQA).

h. Visual Assessment Unit N (Victory Boulevard – Variel Avenue to Owensmouth Avenue Terminus)

In this visual assessment unit the project would leave the right-of-way and buses would travel on street along Victory Boulevard and Owensmouth Avenue to the terminus at the Warner Center Transit Hub. Land uses along this portion of the alignment are predominantly commercial, with malls, large-scale retail, office buildings, and multifamily housing, thus there are few viewers of

high sensitivity in the area. The project is consistent with existing traffic conditions in this area. Visual impacts would not be adverse under NEPA (significant under CEQA).

4-6.3.3 Lankershim/Oxnard On-Street Alignment

a. Visual Assessment Unit O (Lankershim Boulevard & Oxnard Street– Chandler Boulevard to Woodman Avenue)

In this visual assessment unit the project would run on street with other traffic. There is existing transit service along this alignment. Viewers along this segment are of varying sensitivity. High sensitivity viewers include users of educational institutions along the alignment and the inhabitants of the single and multifamily uses that predominate along Oxnard Street. There are also clusters of commercial and office uses along Lankershim Boulevard and at SR-170. Lankershim Boulevard and Oxnard Street are busy streets with four lanes of traffic and existing bus service, therefore a project would be compatible with current conditions. Visual impacts along this alignment would not be adverse under NEPA (significant under CEQA).

4-6.3.4 Station Areas

Stations would be constructed at-grade, and would feature one-story station structures that are 15 feet wide and 12 feet high, new landscaping, and new nighttime lighting. The change on existing aesthetic conditions would be minimal. Conceptual station plans and descriptions can be found in Chapter 2. Station-specific visual impacts are described below.

a. North Hollywood

The project would terminate at Lankershim Boulevard, west of the existing North Hollywood Red Line station. ~~Visual impacts would not be adverse under NEPA (significant under CEQA), due to the existing transit and commercially oriented nature of the area.~~ The design of the North Hollywood BRT station and turnaround adjacent to the historic Lankershim Depot is being coordinated closely with the City of Los Angeles Community Redevelopment Agency. The design takes into account the historic facility. The proposed bus turnaround would be constructed north of the Depot. An existing track along the north side of the depot would be left in place, and CRA/MTA plans for restoration of the Depot (as a separate project) and landscaping of the southeast corner of the site similar to a previous open space on the site are shown on the plan drawings. Fixed station elements such as canopies and ticket vending machines would not be placed directly in front of the Depot, and would not block views of the Depot. Lighting is currently provided to the entire site. Considering the existing transit use and commercially oriented nature of the area, and given incorporation of the historic Lankershim Depot into the station design, visual impacts would not be adverse under NEPA (significant under CEQA).

b. Laurel Canyon

There would be east- and westbound stations located in the median at the intersection of Laurel Canyon and Chandler Boulevards. The stations would consist of platforms and landscaping to

buffer the station from surrounding commercial and residential uses. The westbound station would be across Chandler Boulevard from a residential care facility. Residents would have views of the station across the width of Chandler Boulevard. Additional trees and landscaping would minimize visual impacts at this station, making them not adverse under NEPA (not significant under CEQA).

c. Valley College

The Valley College station would be located at the intersection of Fulton Avenue and Burbank Boulevard. The westbound bus shelter would be separated from the street and adjacent commercial uses by the LADOT-planned bikeway and pedestrian path, a transit plaza, and landscaping. A transit plaza and new landscaping would separate the eastbound station from adjacent uses. The visual impacts at this station would be not adverse under NEPA (not significant under CEQA), as the station would correspond to the existing character, there are no viewers of high sensitivity, and the landscaping of the area would be improved.

d. Woodman

Both platforms of this station would be located in the right-of-way immediately south of Oxnard Street adjacent to commercial uses on the west and single family homes on the east. There are two single-family residential rear yards approximately 40 feet from the westbound shelter. The visual impacts would be minimal due to the existing commercial orientation of the intersection and to the planned landscape improvements and noise mitigation, which would buffer residential areas from the station.

e. Van Nuys

The Van Nuys station would be located on the east side of Van Nuys Boulevard in the right-of-way. The westbound shelter would be separated from commercial uses to the north by the LADOT-planned bikeway and pedestrian path. The eastbound shelter would be adjacent to a transit plaza along Aetna Street. There would be parking lots at the northwest corner of the right-of-way and Van Nuys Boulevard for two blocks along Bessemer Street and to the east of the transit plaza along Aetna Street to Tyrone Avenue. The areas adjacent to the station are entirely commercial in use. There are no viewers of high sensitivity in this area. The improvements to the landscaping and streetscape are in keeping with the Van Nuys Civic Center uses to the north and would replace existing used car lots. The visual effects would be beneficial.

f. Sepulveda

The station at Sepulveda Boulevard would be located on the west side of the Sepulveda Boulevard, adjacent to the proposed park-and-ride facility, and approximately 600 feet west of the street. A large park and ride lot would be located northwest of the station, between the right-of-way and Erwin Street. There are single-family homes across Erwin Street from the park and ride lot, which is currently a commercial parking lot and storage facility. A ~~20-foot~~ landscaped

~~buffer~~ area and ~~possible~~ a soundwall along the north edge of the parking lot would ~~create an over 50 foot separation between~~ buffer the parking lot ~~and~~ from single-family homes. Other adjacent uses are commercial and industrial. The access road along the north side of the station would be maintained. There would be no adverse impacts under NEPA (significant impacts under CEQA).

g. Woodley

This station would be located on both the east and west sides of Woodley Avenue, in the right-of-way south of Victory Boulevard. The platforms would be separated from the existing bicycle path by approximately 10 to 30 feet of landscaping, and from the Sepulveda Basin by approximately five feet of landscaping and trees. Due to the planned landscape improvements and the existing character of the intersection, with its lack of high-sensitivity viewers, there would be no adverse visual impacts under NEPA (significant visual impacts under CEQA) at this station.

h. Balboa

This station would be located on the east side of Balboa Boulevard in the right-of-way south of the existing park and ride lot. The closest sensitive viewers to the station site are office workers on the west side of Balboa Boulevard across the street from the station area. The station would be located 350 feet east of Balboa Boulevard (or directly adjacent to Balboa Boulevard) and would be landscaped, so there would be no adverse visual impacts under NEPA (significant visual impacts under CEQA) at this location.

i. Reseda

The Reseda Boulevard station would be located just north of the intersection of Reseda Boulevard and Oxnard Street. The surrounding area is entirely industrial and commercial in character, so there are no sensitive viewers. The east- and westbound platforms would be located of the east and west sides of Reseda, respectively, with landscaped transit plazas to the north and south. North of the eastbound station, the transit plaza would be adjacent to an existing carwash. The transit plaza on the south side of the station would extend to Oxnard Street. Across Oxnard Street from the transit plaza site are existing commercial uses. Due to the current density of development and lack of any vegetation, the project station would provide a visual improvement at this location.

j. Tampa, Pierce College, and De Soto

These three stations would be configured identically. The east- and westbound shelters would be located in the right-of-way on the east and west sides, respectively, of Tampa, Pierce College at Mason, and De Soto Avenues. The westbound shelter~~, like the length of the project in this area,~~ would be buffered from the residential areas to the north by ~~a berm or a fence/wall and new trees and landscaping. There would be approximately 10 to 15 feet of new landscaping and a fence/wall to buffer the westbound platform from residential areas to the north~~ a soundwall

located at the rear of the station on the property line. This soundwall would shade the rear yards of the adjacent residences; however, since a relatively tall wall already exists at or near the rear of residences at the property line, impacts would not be adverse or significant. The eastbound platform would be separated from Topham Street and Victory Boulevard by the LADOT-planned bikeway and pedestrian path and additional landscaping. Due to the urban character of Victory Boulevard and the existing and proposed walls ~~and vegetation~~ shielding the homes near the intersections from view, there would be no adverse visual impacts under NEPA (significant visual impacts under CEQA) at these locations.

The Pierce College station includes an alternative station location under consideration at the intersection of Winnetka Avenue and the MTA ROW. A landscaped park-and-ride lot, to be located west of Winnetka Avenue on the site of the Child Development Center (which would be relocated), is proposed for this station. At this station, the eastbound and westbound shelters would be located on the east and west side of Winnetka Avenue, respectively. The station areas and busway would be buffered from the residential areas to the north by a wall and landscaping. Along the ROW and the eastbound station there would be approximately 15 feet of new landscaping to buffer the residential areas to the north, and approximately 5 feet of landscaping at the westbound station. Landscaping would also be provided on the south side of the ROW and in the park-and-ride lot. Due to the existing and proposed walls and vegetation shielding the homes near the intersections from view, there would be no adverse visual impacts under NEPA (no significant visual impacts under CEQA) at the Winnetka station site.

k. Warner Center Transit Hub

This on street station is being designed and constructed by the LADOT. Curbside bus stops will be similar to those in use now. Owensmouth Avenue, a designated transit parkway, would not be negatively affected by the introduction of bus service from the East-West Transit Corridor.

4-6.4 Mitigation Measures

Although not required to reduce visual impacts, the following mitigation measures are proposed to further enhance visual compatibility.

4-6.4.1 ~~SP~~ MTA ROW Alignment

V&A-1: ~~Prior to construction, a~~A certified arborist ~~shall be~~ has been retained to conduct a thorough inspection of the eucalyptus trees located between the North Hollywood Metro Rail Station and Coldwater Canyon Avenue to determine the condition, quality, and estimated life span of the trees and to identify measures that should be taken in the engineering and construction phases to ensure that the trees would be preserved. This report shall be submitted to the MTA Planning and Construction Divisions, and the City of Los Angeles Department of Public Works, Street Tree Division. In the event that the arborist or project engineers determine that implementation of the project would prevent preservation of the trees, or that the health of the trees necessitates their removal, the trees shall be replaced in the

Chandler Boulevard median with trees of similar qualities (evergreen, vertical, fast-growing) of 24-inch box size or greater at the rate of one new tree for each tree removed.

V&A-2: During the ~~preliminary engineering and final design~~ Design/Build phase~~s~~, the alignment of the busway~~, as well as~~ and placement of elements such as soundwalls, fences, and berms~~, should~~ that have been developed in Preliminary Engineering will be followed, and the project will continue to take into account existing mature trees in the right-of-way and avoid ~~necessitating~~ their removal where possible.

V&A-3: The following Metro Art policies will be applied:

- **Public Art and the Design Process**: As part of the Design/Build process~~, of designing any of the alternatives,~~ artists will be hired to participate in the project. Metro Art staff will invite interested members of the communities (residential, business, and institutional) along the alignment to form a Metro Art Advisory Group. This process of community participation follows FTA policy (Circular 9400.1A), which states: "To create facilities that are integral components of communities, information about the character, makeup, and history of the neighborhood should be developed and local residents and businesses could be involved in generating ideas for the project."

  A budget will be established for public art that will be based on a percentage of the hard costs (construction costs) for the project and will cover design fees and fabrication and installation of art elements. Again, as directed by the FTA (Circular 9400.1A), "Funds spent on the art component of the project should be appropriate to the overall costs of the transit project and adequate to have an impact."

- **Design Excellence**: Following policy established by the FTA for design and art in transit projects (Circular 9400.1A), MTA commits to the idea that: "Good design and art can improve the appearance and safety of a facility, give vibrancy to its public spaces, and make patrons feel welcome. Good design and art will also contribute to the goal that transit facilities help to create livable communities." To continue its commitment to these ideals, design excellence will be an important criterion for selection of design team members and for evaluation of design proposals.

  To ensure design excellence, the MTA will follow the award-winning model for "Excellence in Public Architecture" established by the General Services Administration of the U.S. Government. That process attracts large numbers of qualified design firms through a streamlined process and utilizes the insight of outside peer advisors.

- **Graphics and Wayfinding**: The quality of graphic signage and wayfinding within the system and within the adjacent neighborhoods greatly affects the ease and comfort with which patrons will use the system. Station names, station identification, directional signage, logos, maps, and informational signage shall adhere to the MTA Graphics Standards. The guiding principles for the standards are to simplify Metro signage systems in a way that makes sense for patrons, using uniformity in text styles, a rational hierarchy of sign sizes, clear directional arrows, etc.

4-6.4.2 Lankershim / Oxnard On-Street Alignment and Weekend Service on Lankershim/Oxnard

No additional mitigation measures are required. However, along the portion of this alignment that does run within the ~~SP~~ MTA ROW (from Woodman Avenue to Warner Center), the measures described above in Section 4-6.4.1 would be implemented.

The Lankershim/Oxnard Weekend Service Option would also require no additional mitigation measures. As an enhancement, some additional street trees would be planted along Oxnard Street.

4-6.4.3 Station Areas

No mitigation measures are required.

4-7 AIR QUALITY

4-7.1 Setting

❑ Regulatory Setting

Air quality in the United States is governed by the Federal Clean Air Act (CAA) and is administered by the United States Environmental Protection Agency (USEPA). In addition to being subject to the requirements of the CAA, air quality in California is also governed by the more stringent regulations under the California Clean Air Act (CCAA).

The CCAA of 1988 requires all air districts in the State to endeavor to achieve and maintain State Ambient Air Quality Standards. The CCAA is administered statewide by the California Air Resources Board (CARB). The State of California has established ambient air quality standards, known as the California Ambient Air Quality Standard (CAAQS). These standards are generally more stringent than the corresponding federal standards and incorporate additional standards for sulfates, hydrogen sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. California has established CARB to regulate mobile air pollution sources (such as motor vehicles). CARB also oversees the functions of local air pollution control districts and air quality management districts, which in turn administer air quality activities at the regional and county level. The CCAA is administered by CARB at the state level and by the Air Quality Management Districts at the regional level.

• U.S. Environmental Protection Agency

USEPA is responsible for establishing the National Ambient Air Quality Standards (NAAQS) and enforcing the Clean Air Act. It also regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The USEPA has jurisdiction over emission sources outside state waters (e.g., beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by CARB.

• California Air Resources Board

CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for ensuring implementation of the California Clean Air Act, meeting state requirements of the federal Clean Air Act, and establishing state ambient air quality standards. It is also responsible for setting emission standards for vehicles sold in California and for other emission sources, such as consumer products and certain off-road equipment. CARB also established passenger vehicle fuel specifications, which became effective in March 1996.

• Non-attainment and State Implementation Plans

CARB designates an area as non-attainment for a pollutant if air quality data show that a State standard for a pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as non-attainment.

On the basis of regional monitoring data, the Los Angeles County portion of the South Coast Air Basin has been designated as a non-attainment area for ozone, carbon monoxide, and total suspended particulates (PM_{10}). The air basin is designated as an attainment area for nitrogen oxide, sulfur dioxide, sulfates, and lead.[7]

Federal clean air laws require areas with unhealthy levels of ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, and inhaleable particulate matter to develop plans, known as State Implementation Plans (SIPs), describing how they would attain national ambient air quality standards (NAAQS). The 1992 amendments to the federal Clean Air Act set new deadlines for attainment based on the severity of the pollution problem and launched a comprehensive planning process for attaining the NAAQS.

SIPs are not single documents; rather, they are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies, such as the Bureau of Automotive Repair, prepare SIP elements and submit them to CARB for review and approval. CARB forwards SIP revisions to USEPA for approval and publication in the Federal Register. The Code of Federal Regulations (CFR) Title 40, Chapter 1, Part 52, Subpart F, Section 52.220 lists all of the items that are included in the California SIP. Many additional California submittals are pending USEPA approval.

• South Coast Air Quality Management District

In order to coordinate air quality planning efforts throughout southern California, the South Coast Air Quality Management District (SCAQMD) was created by the 1977 Lewis Air Quality Management Act, which merged four county air pollution control agencies into one regional district to better address the issue of improving air quality in Southern California. Under the act, renamed the Lewis-Presley Air Quality Management Act in 1988, the SCAQMD is the agency principally responsible for comprehensive air pollution control in the Basin. Specifically, the SCAQMD is responsible for monitoring air quality and planning, implementing, and enforcing programs designed to attain and maintain state and federal ambient air quality standards in the

[7] California Air Resources Board: Proposed Amendments to the Designation Criteria and Amendments to the Area Designations for State Ambient Air Quality Standards and Proposed Maps of the Area Designations for the State and National Ambient Air Quality Standards, September 2000.

district. Programs developed include air quality rules and regulations that regulate stationary source emissions, including area sources and point sources and certain mobile source emissions. The SCAQMD is also responsible for establishing permitting requirements for stationary sources and ensuring that new, modified, or relocated stationary sources do not create net emissions increases and, therefore, is consistent with the region's air quality goals. The SCAQMD enforces air quality rules and regulations through a variety of means, including inspections, educational or training programs, or fines, when necessary.

The SCAQMD has jurisdiction over a 10,743 square mile area, commonly referred to as the South Coast Air Basin (SCAB). This area includes all of Orange County, Los Angeles County, except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The SCAB is bounded by the Pacific Ocean to the west; by the San Gabriel, San Bernardino, and San Jacinto mountains to the north and the east; and by the San Diego County line to the south (see Figure 4-45).

- **Air Quality Management Plan**

Within the project area, the SCAQMD and the Southern California Association of Governments (SCAG) have responsibility for preparing the Air Quality Management Plan (AQMP), which address federal and state Clean Air Act requirements. The AQMP details goals, policies, and programs for improving air quality and establishes thresholds for daily operation emissions. Environmental review of individual projects within the region must demonstrate that daily construction and operational emissions thresholds, as established by the SCAQMD, would not be exceeded, nor would the number or severity of existing air quality violations.

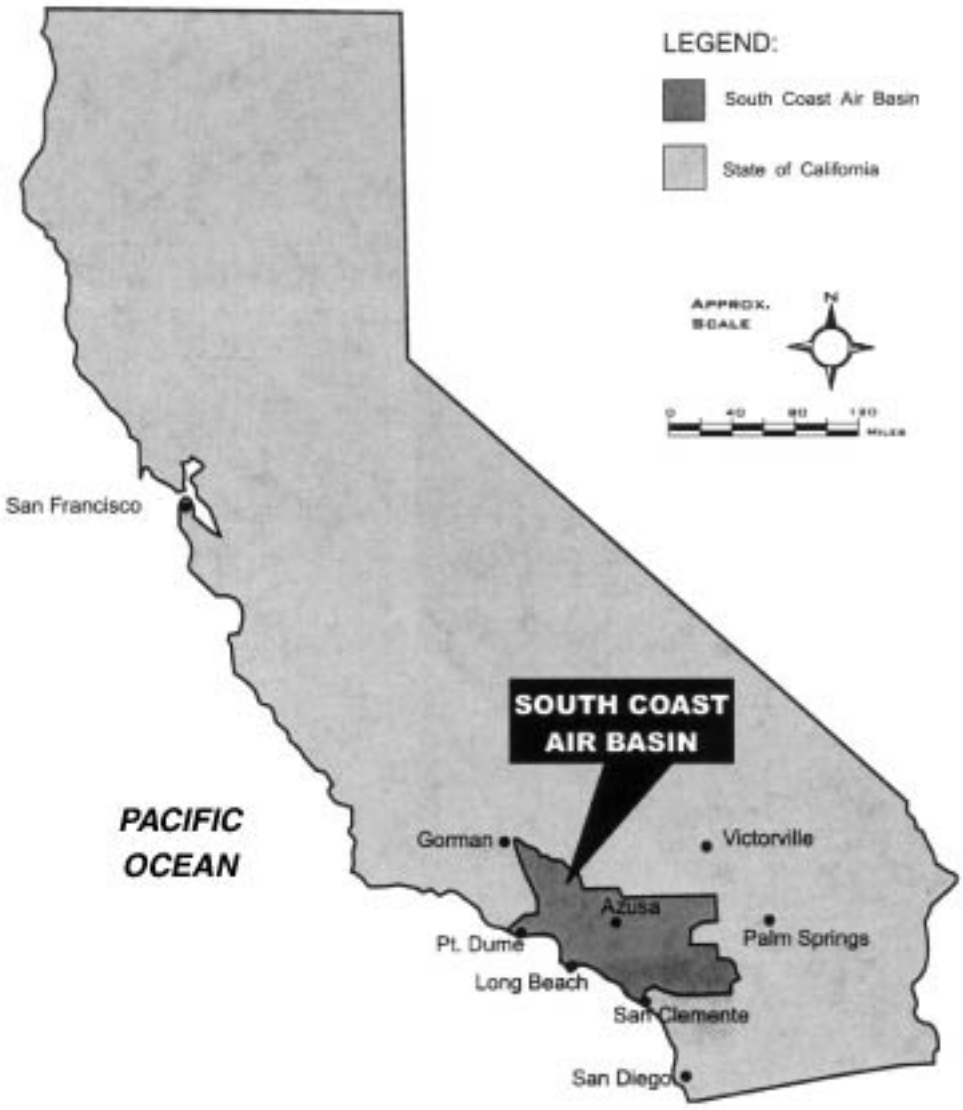
In August of 1996, the SCAQMD submitted its AQMP to CARB for inclusion in the SIP. As mentioned earlier, the AQMP also meets CCAA requirements. The AQMP addressed CCAA requirements, which are intended to bring the SCAQMD into compliance with federal and state air quality standards. The AQMP focused on ozone and carbon monoxide emissions, which would be reduced through public education, vehicle and fuel management, transportation controls, indirect source controls, and stationary source controls programs.

The 1997 Draft AQMP has been prepared to reflect the requirements of the 1990 Clean Air Act Amendments and is consistent with the approaches taken in the 1994 AQMP. The Plan is expected to replace, in part or in whole, many of the proposed measures set forth in the SIP and anticipates the attainment of all pollutants by 2010.

The overall control strategy of the 1997 AQMP was to meet applicable state and federal requirements and to demonstrate attainment with ambient air quality standards. The 1997 AQMP is the first plan required by the federal law to demonstrate attainment of the federal PM_{10} ambient air quality standards, and therefore, places a greater focus on PM_{10}.

- **National and State Ambient Air Quality Standards**

As required by the Clean Air Act, National Ambient Air Quality Standards ("NAAQS") have been established for six major air pollutants: carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O_3), particulate matter smaller than 10 microns (PM_{10}), sulfur oxides (SO_x), and lead.



Sources: California Air Resources Board, State and Local Air Monitoring Network Plan, October 1998.

Figure 4-45: South Coast Air Basin

The State of California has also established ambient air quality standards, known as the California Ambient Air Quality Standards (CAAQS). These standards are generally more stringent than the federal standards and incorporate additional standards for sulfates, hydrogen sulfide, vinyl chloride and visibility reducing particles. Because the CAAQS are more stringent than the NAAQS, they are used as the comparative standard in the analysis contained in this report.

Both State and Federal standards are summarized in Table 4-18. The "primary" standards have been established to protect the public health. The "secondary" standards are intended to protect the nation's welfare and account for air pollutant effects on soil, water, visibility, materials, vegetation and other aspects of the general welfare.

Table 4-18: Federal and California Ambient Air Quality Standards

Pollutant	Averaging Period	California Standard[1]	Federal Standards[2]	
		Concentration[3]	Primary[3, 4]	Secondary[3, 5]
Ozone (O_3)	1 hour	0.09 ppm (180 μg/m^3)	0.12 ppm (235 μg/m^3)[6]	Same as Primary Standard
	8 hour	--	0.08 ppm (157 μg/m^3)	
Respirable Particulate Matter (PM_{10})	Annual Geometric Mean	30 μg/m^3	--	Same as Primary Standard
	24 hour	50 μg/m^3	150 μg/m^3	
	Annual Arithmetic Mean	--	50 μg/m^3	
Fine Particulate Matter ($PM_{2.5}$)	24 hour	No Separate Standard	65 μg/m^3	Same as Primary Standard
	Annual Arithmetic Mean		15 μg/m^3	
Carbon Monoxide (CO)	8 hour	9.0 (10 mg/m3)	9.0 (10 mg/m3)	None
	1 hour	20 ppm (23 mg/m3)	35 ppm (40 mg/m3)	
	8 hour (Lake Tahoe)	6 ppm (7 mg/m3)	--	
Nitrogen Dioxide (NO_2)	Annual Arithmetic Mean	--	0.053 ppm (100 μg/m^3)	Same as Primary Standard
	1 hour	0.25 ppm (470 μg/m^3)	--	
Sulfur dioxide (SO_2)	Annual Arithmetic Mean	--	0.030 ppm (80 μg/m^3)	--
	24 hour	0.04 ppm (105 μg/m^3)	0.14 ppm (365 μg/m^3)	--
	3 hour	--	--	0.5 ppm (1300 μg/m^3)
	1 hour	0.25 ppm (655 μg/m^3)	--	--
Lead	30 days average	1.5 μg/m^3	--	--
	Calendar Quarter	--	1.5 μg/m^3	Same as Primary Standard

Table 4-18: Federal and California Ambient Air Quality Standards				
Pollutant	**Averaging Period**	**California Standard[1]**	**Federal Standards[2]**	
		Concentration[3]	**Primary[3, 4]**	**Secondary[3, 5]**
Visibility Reducing Particulates	8 hour (10 am to 6 pm, PST)	In sufficient amount to produce an extinction coefficient of 0.23 per kilometer—visibility of ten miles or more (0.07-30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70 percent.	No Federal Standards	
Sulfates	24 hour	25 $\mu g/m^3$		
Hydrogen Sulfide	1 hour	0.03 ppm (42 $\mu g/m^3$)		

Notes:
1. California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM_{10}, and visibility-reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded.
2. National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when 99 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 2°C and a reference pressure of 760 mm of mercury. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 mm of mercury (1,013.2 millibar); ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
5. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
6. New federal 1-hour ozone and fine particulate matter standards were promulgated by U.S. EPA on July 18,1997. The federal 1-hour ozone standard continues to apply in areas that violated the standard.

Source: California Air Resources Board, *Federal and State Air Quality Standards 1999* (1/25/99).

❑ Regional Setting

The proposed project is located within the Los Angeles County portion of the SCAB. Ambient pollution concentrations recorded in the Los Angeles County are among the highest in the four counties comprising the Basin. The SCAB is an area of high air pollution potential due to its climate and topography. The Basin experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. In addition, the mountains and hills within the area contribute to the variation of rainfall, temperature, and winds throughout the region. The region experiences frequent temperature inversions-temperature typically decreases with height; however, under inversion conditions, temperature increases as altitude increases and prevents air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and lower layer of the atmosphere, which creates a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward.

In addition, hydrocarbons, ozone (O_3), and nitrogen dioxide (NO_2) react under strong sunlight, creating pollution, commonly referred to as "smog." Light, daytime winds, predominantly from the west, further aggravate the condition by driving the air pollutants inland, toward the mountains.

During the fall and winter, air quality problems are created due to carbon monoxide (CO) and nitrogen dioxide emissions. High nitrogen dioxide levels usually occur during autumn or winter, on days with summer-like conditions. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SCAB are associated with heavy traffic.

- **Pollutants and Effects**

Air quality studies focus on the following five criteria pollutants: ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide (SO_2), and respirable particulate matter (PM_{10}).

Ozone. Ozone (O_3) is a colorless gas and is the chief component of urban smog. Ozone impacts lung function by irritating and damaging the respiratory system. In addition, ozone causes damage to vegetation, buildings, rubber, and some plastics (California Air Resources Board Almanac, 1999). Ozone is one of a number of substances called photochemical oxidants that are formed when reactive organic compounds (ROC) and nitrogen oxides (precursor emissions), both byproducts of the internal combustion engine, react in the presence of ultraviolet sunlight. Ozone is present in relatively high concentrations within the Basin, and the damaging effects of photochemical smog are generally related to the concentrations of ozone. (SCAQMD, 1993). Meteorology and terrain play major roles in ozone formation. Generally, low wind speeds or stagnant air coupled with warm temperatures and cloudless skies provide for the optimum conditions.

Carbon Monoxide. Carbon monoxide (CO) is a gas that, in the human body, interferes with the transfer of oxygen to the blood. It can cause dizziness and fatigue, and can impair central nervous system functions. CO is a product of incomplete combustion emitted, along with carbon dioxide, by motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, CO is emitted primarily by automobiles, trucks, and motorcycles. CO is a nonreactive air pollutant that dissipates relatively quickly, so ambient carbon monoxide concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. When surface-based temperature inversions are combined with calm atmospheric conditions, a typical situation at dusk in urban areas between November and February, CO from motor vehicle exhaust can become locally concentrated. The highest CO concentrations measured in SCAB are typically recorded during the winter.

Nitrogen Dioxide. Nitrogen dioxide (NO_2) is a byproduct of fuel combustion. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. Nitrogen dioxide acts as an acute irritant and, in higher concentrations is more injurious than NO. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 to 3 years old) has also been observed at concentrations below 0.3 parts

per million (ppm). Nitrogen dioxide absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10} (SCAQMD, 1993).

Sulfur Oxides. SO_2 is a human respiratory irritant. It also combines with moisture in the atmosphere to form sulfuric acid, which, in turn, damages vegetation and slowly erodes the exterior facades of buildings and other structures in urban areas. Sulfur oxides (SO_x), primarily sulfur dioxide (SO_2), are a product of combustion of high-sulfur fuels, such as many grades of coal and oil. In recent years, restrictions on the use of high-sulfur fuels and other air pollution control measures have substantially reduced ambient concentrations of SO_2 throughout the U.S. SO_2 concentrations have been reduced to levels well below state and national standards, but further reductions in emissions are needed to attain compliance with standards for sulfates and PM_{10}, of which SO_2 is a contributor.

Suspended Particulate Matter. Suspended, or respirable, particulate matter (PM_{10}) consists of suspended particles less than 10 microns in diameter. Particulates in this size category can be inhaled, irritating the human respiratory tract and aggravating pre-existing respiratory disease. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly, can be absorbed into the blood stream and cause damage elsewhere in the body, and can transport absorbed gases, such as chlorides or ammonium, into the lungs and cause injury. Particulates also damage and discolor surfaces on which they settle, and reduce regional visibility.

Particulates in the atmosphere result from natural sources, such as wind erosion and ocean spray, and from human activities. Man-made sources include many types of dust- and fume-producing industrial and agricultural operations; fuel combustion and vehicle travel; grading, excavating, demolition, and blasting from construction; and atmospheric chemical and photochemical reactions. Motor vehicle traffic is the major source of PM_{10}. In urban areas, PM_{10} concentrations generally are higher in winter when more fuel is burned and meteorological conditions favor the concentration of primary air pollutants.

❑ Local Setting

The SCAQMD monitors air quality conditions at 37 locations throughout the SCAB. The San Fernando East-West Transit Corridor is within the East and West San Fernando Valley Source Receptor Area (see Figure 4-46). Data from the Burbank and Reseda monitoring stations, located in the two receptor areas, were used to characterize existing conditions in the vicinity of the proposed project, and establish a baseline for estimating future conditions both with and without the proposed project. The pollutants NO_2, SO_2, and PM_{10} are not monitored at the Reseda monitoring station. The Burbank monitoring station will be used to characterize these three pollutants. A summary of the data recorded at these stations is presented in Table 4-19.

Table 4-19: Air Quality Summary for Study Area Monitoring Stations, 1997-1999

Air Pollutant	Standard Exceedance	Burbank			Reseda		
		1997	1998	1999	1997	1998	1999
Ozone (O_3)	Maximum 1-hr Concentration (ppm)	0.134	0.177	0.120	0.121	0.161	0.100
	Maximum 8-hr. Concentration (ppm)	0.103	0.124	0.099	0.094	0.118	0.084
	Days > 0.12 ppm (federal 1-hr. standard)	2	7	0	0	7	0
	Days > 0.08 ppm (federal 8-hr. standard)	6	13	3	2	12	0
	Days > 0.09 ppm (state 1-hr. standard)	15	33	13	12	23	5
Carbon Monoxide (CO)	Maximum 8-hr concentration (ppm)	7.26	7.33	8.93	9.54	9.30	7.51
	Days > 9.5 ppm (federal 8-hr. standard)	0	0	0	1	0	0
	Days > 9 ppm (state 8-hr. standard)	0	0	0	1	1	0
Nitrogen Dioxide (NO_2)	Maximum 1-hr Concentration (ppm)	0.200	0.143	0.179	0.130	0.138	0.114
	Days > 0.09 ppm (state 1-hr. standard)	0	0	0	0	0	0
Sulfur Dioxide (SO_2)	Maximum 24-hr Concentration (ppm)	0.005	0.007	0.003	N/A	N/A	N/A
	Days > 0.14 ppm (federal 24-hr standard)	0	0	0			
	Days > 0.05 ppm (state 24-hr. standard)	0	0	0			
Suspended Particulates (PM_{10})	Maximum 24-hr. concentration ($\mu g/m^3$)	92.0	75.0	82.0	N/A	N/A	N/A
	Calculated > 150 $\mu g/m^3$ (federal 24-hr standard)	0	0	0			
	Calculated > 50 $\mu g/m^3$ (state 24-hr standard)	102	54	126			

Notes:
N/A = pollutant not monitored.
ppm = parts per million
$\mu g/m^3$ = micrograms per cubic meter.

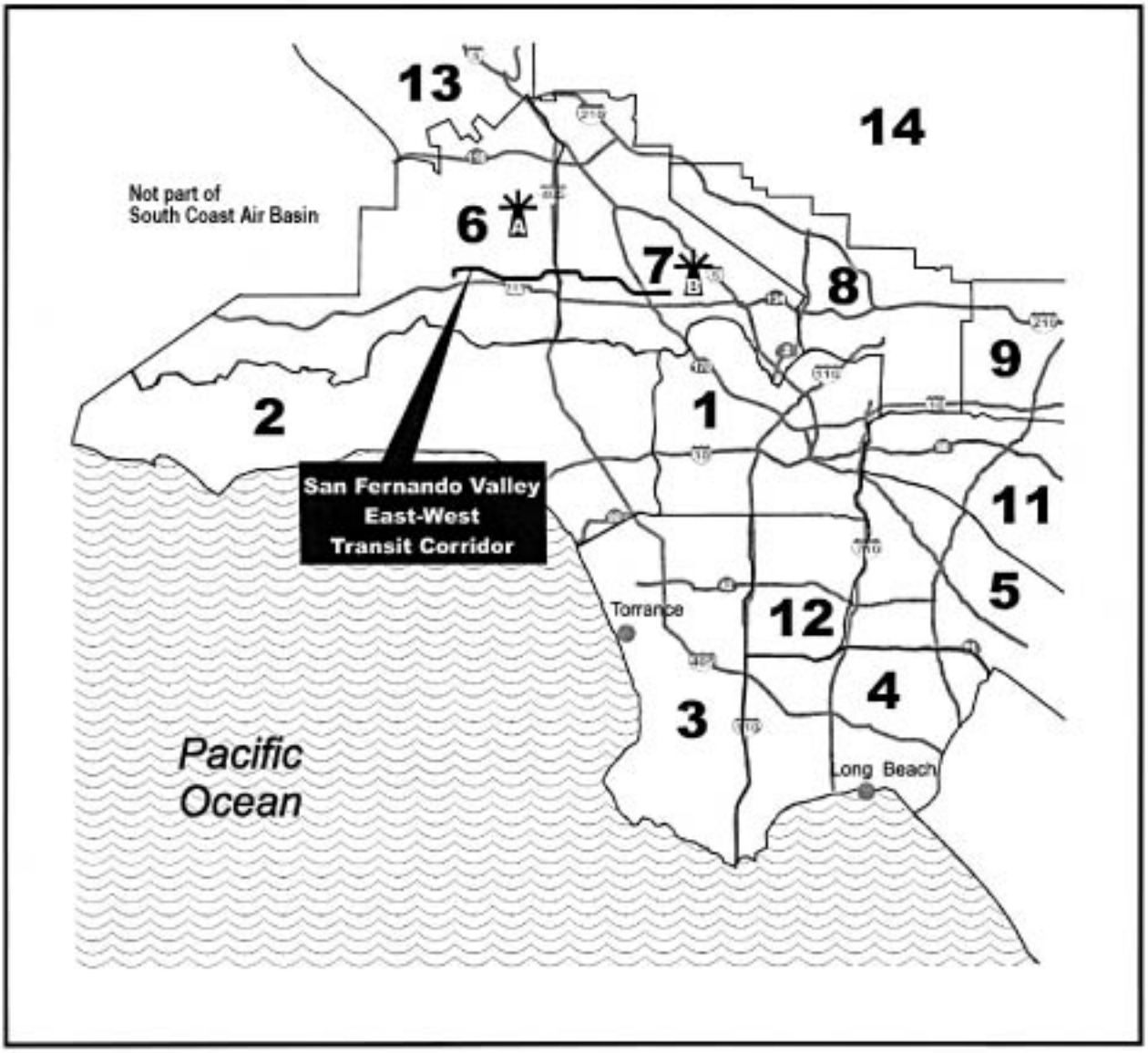
Source: California Air Quality Data Summaries 1997-1999, California Air Resources Board; see Air Quality Appendix.

With the exception of O_3, no pollutants monitored at the Burbank station exceed the Federal Standards. Only PM_{10} and O_3 exceed the State Standards. At the Reseda monitoring station, CO and O_3 have exceeded the State and Federal Standards at least once between 1997 and 1999. Only NO_2 did not exceed the State Standard.

- **Background Carbon Monoxide Concentrations**

Carbon monoxide concentrations are typically used as the sole indicator of conformity with the CAAQS because 1) CO levels are directly related to vehicular traffic volumes, the main source of air pollutants, and 2) localized CO concentrations and characteristics can be modeled using USEPA and SCAQMD methods. In other words, the operational air quality impacts associated with a project are generally best reflected through the estimated changes in related CO concentrations. The background, or ambient, CO level is typically defined as the average of the second-highest readings over the last three year period.[8]

[8] Caltrans: Air Quality Technical Analysis Notes, June 1988.



LEGEND:

Reseda Monitoring Station

Burbank Monitoring Station

Air Monitoring Areas in Los Angeles County:

1. Central Los Angeles
2. Northwest Coastal
3. Southwest Coastal
4. South Coastal
5. Southeast Los Angeles County
6. West San Fernando Valley
7. East San Fernando Valley
8. West San Gabriel Valley
9. East San Gabriel Valley
10. Pomona/Walnut Valley
11. South San Gabriel Valley
12. South Central Los Angeles
13. Santa Clarita Valley
14. Antelope Valley
15. San Gabriel Mountains

APPROX. SCALE

Source: South Coast Air Quality Management District Air Monitoring Areas Map, 1989.

Figure 4-46: Air Monitoring Areas

A review of the data from the Reseda monitoring station during the 1997 through 1999 period indicates that the average 8-hour background CO concentration was 7.3 parts per million (ppm). An ambient 8-hour CO concentration based on the data recorded from the Burbank monitoring station is 6.9 ppm.[9] Assuming a typical persistence factor[10] of 0.7, the estimated 1-hour background concentration would be 10.4 ppm at the Reseda monitoring station, and 9.9 ppm at the Burbank Monitoring Station. The ambient CO concentrations at each station do not exceed the State and Federal standards.

- **Carbon Monoxide Concentrations at Sensitive Receptor Locations**

Some land uses are considered more sensitive to changes in air quality than others, depending on the types of population groups and the activities involved. The CARB has identified the following people as the most likely to be affected by air pollution: children under 14 years of age, the elderly over 65 years of age, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include hospitals, daycare facilities, elder care facilities, elementary schools, and parks.

There is a direct relationship between traffic/circulation congestion and CO impacts, since exhaust fumes from vehicular traffic is the primary source of CO. Carbon monoxide is a localized gas that dissipates very quickly under normal meteorological conditions. Therefore, CO concentrations decrease substantially as distance from the source (intersection) increases. The highest CO concentrations are typically found along sidewalk locations directly adjacent to congested roadway intersections.

To provide a worst-case simulation of CO concentrations within the area that may be affected by the proposed project, CO concentrations at sidewalks adjacent to the most congested 21 of the 53 study intersections were modeled. The 21 intersections were selected to represent worst-case conditions because the intersections were designated in the project traffic study as being significantly impacted by traffic under future No Build conditions. The 21 intersections would have level of service (LOS) of D, E, or F under future No Build conditions. PM peak hour conditions were analyzed because it is at this time when vehicle delays and LOS are the highest. At each intersection, traffic related CO contributions were added to the background conditions discussed above. Traffic contributions were estimated using the CAL3QHC dispersion model, which utilizes traffic volume inputs and EMFAC7F emissions factors.[11] Table 4-20 shows existing CO concentrations at the 21 study intersections evaluated.

[9] See Air Quality Appendix.

[10] Persistence factor is the ratio between the one-hour and one-hour second annual maximum CO concentrations measured at a continuous air monitoring station. A persistence factor of 0.7 is typically used in urban areas.

[11] CAL3QHC is an EPA-approved computer model used to estimate localized pollutant concentrations, using carbon monoxide as an indicator compound and a Gaussian plume distribution methodology. EMFAC7F is a set of California Air Resources Board-approved emission factors for motor vehicles that is used as input to the CAL3QHC model.

As shown in Table 4-20, three of the 21 study intersections currently exceed the state 1-hour CO concentration standard of 20 ppm. All 21 study intersections currently exceed the State 8-hour CO concentration standard of 9 ppm.

Table 4-20: Existing Carbon Monoxide (CO) Concentrations (parts per million)

Intersection	1-Hour CO Concentration	Exceed State 1-Hour Standard (20 ppm)?	8-Hour CO Concentration	Exceed State 8-Hour Standard (9 ppm)?
Owensmouth Ave/Victory Blvd	19.6	No	13.7	Yes
Canoga Ave/Victory Blvd	19.0	No	13.3	Yes
Variel Ave/Victory Blvd	16.5	No	11.6	Yes
De Soto Ave/Victory Blvd	17.4	No	12.2	Yes
Winnetka Ave/Victory Blvd	18.3	No	12.8	Yes
Tampa Ave/Topham Street	22.0	Yes	15.4	Yes
Reseda Blvd/Hatteras Street	14.1	No	9.9	Yes
Balboa Blvd/Victory Blvd	19.8	No	13.9	Yes
Woodley Ave/Victory Blvd	18.3	No	12.8	Yes
Haskell Ave/Victory Blvd	20.8	Yes	14.6	Yes
Sepulveda Blvd/Victory Blvd	20.0		14.0	Yes
Sepulveda Blvd/Erwin Street	16.0	No	11.2	Yes
Sepulveda Blvd/Oxnard Street	17.1	No	12.0	Yes
Kester Ave/Oxnard Street	16.0	No	11.2	Yes
Van Nuys Blvd/Oxnard Street	17.4	No	12.2	Yes
Hazeltine Ave/Oxnard Street	15.4	No	10.8	Yes
Woodman Ave/Oxnard Street	16.5	No	11.6	Yes
Laurel Canyon Blvd/Oxnard St	17.4	No	12.2	Yes
Lankershim Blvd/Oxnard St	15.4	No	10.8	Yes
Lankershim Blvd/Burbank Blvd	15.6	No	10.9	Yes
Lankershim Blvd/Cumpston St	14.9	No	10.4	Yes

Source: Terry A. Hayes Associates, CAL3QHC output; see Air Quality Appendix.

- **Future Baseline Air Quality**

The California Air Resources Board (CARB), as part of their planning process to meet the requirements of the National and State Clean Air acts, estimates future mobile emissions for each air basin within the State. Table 4-21 illustrates the South Coast Air Basin mobile emissions estimate for the years 2000 and 2020. As can be seen, SO_X and PM_{10} emissions are expected to increase by 16 and 22 percent, respectively, as a result of an increase in vehicle miles traveled (VMT), which results in more brake and tire-wear. Although vehicle miles traveled within the County is expected to increase by approximately 33 percent, CO, NO_X, and ROG emissions are expected to decrease by 47 to 80 percent due to cleaner vehicle fleet. The cleaner fleet is a result

of reduced emissions from new vehicles and removal of older higher emission vehicles over the 20-year period.

Table 4-21: Criteria Pollutant Emissions Reduction[a]

Pollutant	Year 2000		Year 2020		Percent Change
	Tons/day	Tons/year[b]	Tons/day	Tons/year[b]	
Reactive Organic Gases (ROG)	349.2	109,998	69.8	21,987	-80%
CO	3,162.1	996,061.5	1,296.2	408,303	-59%
NO_X	331.3	104,359.5	174.9	55,093.5	-47%
PM_{10}	8.2	2,583	10.0	3,150	22%
SO_X	2.9	913.5	3.5	1,102.5	21%
Daily VMT[c] (millions)	280.3	88,309.9	373.8	117,740.1	33%

Notes:
(a) Emissions are calculated for light duty automobiles and light duty trucks.
(b) Tons/year is calculated based on a trip factor of 315 days.
(c) VMT = vehicle miles traveled.

Source: California Air Resources Board, Burden 7G output – South Coast Air Basin; see Air Quality Appendix.

As shown in Table 4-21, carbon monoxide accounts for the vast majority of mobile emissions. The anticipated reduction in CO emissions would have a corresponding effect on ambient air quality levels in the SCAB. Because the CARB mobile emissions estimates take into account both the growth in vehicle miles traveled as well as improved emission rates, the CO reductions can be directly applied to ambient background CO concentrations, consistent with the USEPA guidance, to provide a future year estimate of background CO levels.

As previously indicated, the average one and 8-hour background CO concentrations were 10.4 and 7.26 ppm, respectively, at the Reseda monitoring station.[12] Year 2020 1-hour and 8-hour ambient CO concentrations would be reduced to 5.1 ppm and 3.6 ppm. This anticipated downward trend in CO concentrations is consistent with a continuing decline in historical CO measurements registered at the Reseda monitoring stations (See Table 4-19).

4-7.2 Impact Analysis Methodology and Evaluation Criteria

The following calculation methods and estimation models were utilized in ascertaining air quality impacts: the CARB Motor Vehicle Emission Inventory 7G (MVEI7G) emissions model, the Caltrans EMFAC emissions factor model, the USEPA CAL3QHC dispersion model software, and the USEPA Industrial Source Complex-Short Term Model (ISCST3) air dispersion model. In addition, the FTA Office of Planning Section 5309 New Starts Criteria was used to calculate criteria pollutant/precursor emissions for each alternative being considered. This air quality analysis is consistent with procedures described in the SCAQMD CEQA Handbook (1993 edition).

[12] As discussed earlier, ambient CO concentration at the Reseda monitoring station is higher than the ambient CO concentrations at the Burbank monitoring station. Therefore, the ambient CO concentration for the Reseda monitoring station was utilized to calculate year 2020 ambient CO concentrations.

The Code of Federal Regulations (CFR) 40 Part 51 establishes conformity measures for the Federal or State Implementation Plan. Under CFR 40 Part 51, should criteria pollutants emitted by the proposed project exceed the amounts listed in Table 4-22 when compared to future no project conditions, a conformity analysis would be required.

Table 4-22: CFR 40, Part 51 – Conformity Criteria	
Pollutants	**Tons per Year (increase over no project conditions)**
~~Carbon Monoxide~~CO	100
NO_X	10
ROG	10
PM_{10}	70

Source: United States Environmental Protection Agency, CFR 40 Part 51.

The proposed project would have a significant impact if criteria pollutant concentrations exceed the amounts listed in Table 4-22 when compared to the No Build Alternative. The proposed project would also result in a significant impact if the proposed project would cause any criteria pollutant concentration to exceed the CAAQS at any sensitive receptor location.

The proposed project does not contain lead, hydrogen sulfide, or sulfate emission sources. Therefore, emissions and concentrations related to these pollutants will not be analyzed in this document.

4-7.3 Impacts

4-7.3.1 Macro Scale (Burden) Emissions

a. No Build Alternative

There is a direct relationship between vehicle miles traveled (VMT) and air pollution. In urbanized regions, such as the Los Angeles Metropolitan area, mobile emissions are the primary source of air pollution. Transportation projects that significantly increase or decrease regional VMT will also significantly degrade or improve regional air quality.

Criteria pollutant emissions for the No Build Alternative are shown in Table 4-23. The pollutant emissions for the No Build Alternative will be compared to the TSM Alternative, as well as the BRT, MOS, and On-Street Alignment, in subsequent sections. The regional VMT was estimated using the Los Angeles County Metropolitan Transit Authority (LACMTA) transportation model.

- Annual VMT for the No Build Alternative is expected to be approximately 141,900 million miles.
- CO emissions are anticipated to be 492,266 tons per year
- NO_X emissions are anticipated to be 71,938 tons per year
- ROG emissions are anticipated to be 28,068 tons per year
- PM_{10} emissions are anticipated to be 3,155 tons per year.

Table 4-23: Criteria Pollutant Emissions for No Build Alternative (Year 2020)					
Vehicular Class	**Annual VMT (millions)**	**Criteria Pollutant Emissions (tons per year)**			
		CO	**NO_X**	**ROG**	**PM_{10}**
Passenger Vehicle (Light duty Auto/ Light duty trucks)	141,667	491,907	70,272	26,547	3,123
Bus/CNG	235.5	319	1,545	431	5
Commuter Rail/Diesel	4.9	40	121	1,090	27
Total	141,907	492,266	71,938	28,068	3,155
Note: VMT = vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000.

b. Transportation System Management (TSM) Alternative

Criteria pollutant emissions for the TSM Alternative are shown in Table 4-24. The regional VMT for the TSM Alternative was estimated using the Los Angeles County Metropolitan Transit Authority (LACMTA) transportation model.

Table 4-24: Estimated Change in Criteria Pollutant Emissions for TSM Alternative (Year 2020)					
Vehicular Class	**Annual VMT (millions)**	**Criteria Pollutant Emissions (tons per year)**			
		CO	**NO_X**	**ROG**	**PM_{10}**
Passenger Vehicle (Light duty Auto/ Light duty trucks)	141,647	491,837	70,262	26,544	3,123
Bus/CNG	236.9	321	1,554	433	5
Commuter Rail/Diesel	4.9	41	122	1,102	28
TSM Total	141,889	492,199	71,938	28,079	3,156
TSM vs. No Build	-18 (-0.01% change)	-67 (-0.01% change)	0	11 (0.04% change)	1 (0.03% change)
Note: VMT = vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000.

As indicated in Table 4-24, annual VMT is expected to decrease by approximately 18 million miles, or 0.01 percent when compared to the No Build Alternative. The TSM Alternative emits higher concentrations of ROG and PM_{10} than the No Build Alternative. However, the TSM Alternative would emit lower concentrations of CO. Changes in NO_X emissions are negligible. All criteria pollutants are expected to change by less than one percent when compared to the No Build Alternative.

Under the TSM Alternative, the increase in ROG emissions when compared to the No Build Alternative would exceed the Federal Conformity Criteria by approximately one ton per year. Thus, a conformity analysis would be required.

c. Bus Rapid Transit (BRT) Alternative

❑ Full BRT

Criteria pollutant emissions for the Full BRT Alternative are shown in Table 4-25. The regional VMT for the Full BRT Alignment was estimated using the ~~Los Angeles County Metropolitan Transit Authority (~~LACMTA~~)~~ transportation model.

Table 4-25 represents the lower bound BRT scenario (28.8-minute signal delay). Table 4-25a represents the upper bound BRT scenario (40-minute signal delay). As indicated in Table 4-25a, annual regional VMT is anticipated to decrease by approximately 23 million miles, or 0.02 percent when compared to the No Build Alternative. Emissions of CO are projected to decrease under the 40 minute BRT when compared to the No Build Alternative. However, emissions of NO_X, ROG and PM_{10} are anticipated to increase by approximately 0.006 percent, 0.02 percent, and 0.03 percent, respectively, when compared to the No Build Alternative.

Table 4-25: Estimated Change in Criteria Pollutant Emissions for Full BRT Alternative – Lower Bound Scenario (Year 2020)

Vehicular Class	Annual VMT (millions)	Criteria Pollutant Emissions (tons per year)			
		CO	NO_X	ROG	PM_{10}
Passenger Vehicle (Light duty Auto/Light duty trucks)	141,633	491,788	70,255	26,541	3,122
Bus/CNG	237.7	322	1,559	435	5
Commuter Rail/Diesel	4.9	41	122	1,095	28
BRT Total	141,876	492,151	71,936	28,071	3,155
BRT vs. No Build	-31 (-0.02% change)	-116 (-0.02% change)	-2 (-0.002% change)	3 (0.01% change)	0
BRT vs. TSM	-13 (-0.01% change)	-48 (-0.01% change)	-2 (0.002% change)	-8 (0.03% change)	-1 (0.03% change)
Note: VMT = vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000.

[Note: Table 4-25a below is a new addition to the Final EIS/EIR and did not appear in the Draft EIS/EIR. It is labeled Table 4-25a to distinguish it from the table numbers in the Draft EIS/EIR. Other new tables added to the Final EIS/EIR are treated in the same way.]

Table 4-25a: Estimated Change in Criteria Pollutant Emissions for BRT Alternative – Upper Bound Scenario (Year 2020)

Vehicular Class	Annual VMT (millions)	Criteria Pollutant Emissions (tons per year)			
		CO	NO_X	ROG	PM_{10}
Passenger Vehicle (Light duty Auto/Light duty trucks)	141,641	491,819	70,260	26,543	3,123
Bus/CNG	237.8	322	1,560	435	5
Commuter Rail/Diesel	4.9	41	122	1,095	28
40 Minute BRT Total	141,884	492,182	71,942	28,073	3,156
40 Minute BRT vs. No Build	-23 (-0.02% change)	-84 (-0.02% change)	4 (0.006% change)	5 (0.02% change)	1 (0.03% change)
40 Minute BRT vs. TSM	-5 (-0.004% change)	-17 (-0.003% change)	4 (0.006% change)	-6 (-0.02% change)	0
Note: VMT = vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000-2002.

When compared to the TSM Alternative, the annual regional VMT for the upper bound scenario is projected to decrease by 0.004 percent, or 5 million VMT. In addition, emissions of CO and ROG are anticipated to decrease. Emissions of NO_X are anticipated to increase, and changes in PM_{10} emissions are negligible.

Increase in criteria pollutant concentrations of the upper bound scenario over No Build Alternative would not violate CFR 40 Part 51, and a conformity analysis would not be required. Thus, less than significant impacts are anticipated.

Annual regional VMT is anticipated to decrease by approximately 31 million miles, or 0.02 percent. With the exception of ROG, all criteria pollutant emissions are projected to decrease under the Full BRT when compared to the No Build Alternative. ROG is anticipated to increase by approximately 0.01 percent when compared to the No Build Alternative. A less than one percent change in VMT and the four criteria pollutants are anticipated under the Full BRT when compared to the No Build Alternatives.

When compared to the TSM Alternative, the annual regional VMT for the BRT alignment is projected to decrease by 0.01 percent, or 13 million VMT. In addition, all criteria pollutants, with the exception of PM_{10}, are anticipated to decrease. Changes in PM_{10} emissions are negligible.

~~Under the Full BRT, i~~Increase in criteria pollutant concentrations of the Full BRT over the No Build ~~Conditions~~ Alternative would not violate CFR 40 Part 51, and a conformity analysis would not be required. Thus, less than significant impacts are anticipated.

❑ Lankershim/Oxnard On-Street Alignment

Criteria pollutant emissions for the Lankershim/Oxnard Alignment are shown in Table 4-26. The regional VMT was estimated using the ~~Los Angeles County Metropolitan Transit Authority (~~LACMTA~~)~~ transportation model.

Table 4-26: Estimated Change in Criteria Pollutant Emissions for Lankershim/Oxnard On-Street Alignment (Year 2020)

Vehicular Class	Annual VMT (millions)	Criteria Pollutant Emissions (tons per year)			
		CO	NO_X	ROG	PM_{10}
Passenger Vehicle (Light duty Auto/ Light duty trucks)	141,638	491,807	70,258	26,542	3,123
Bus/CNG	237.6	322	1,558	435	5
Commuter Rail/Diesel	4.9	41	122	1,099	28
On-Street Total	141,881	492,170	71,938	28,076	3,156
On-Street vs. No Build (percent change)	-26 (-0.02% change)	-96 (-0.02% change)	0	8 (0.03% change)	1 (0.03% change)
On-Street vs. TSM (percent change)	-8 (-0.01% change)	-29 (-0.01% change)	0	-3 (-0.01% change)	0
VMT = Vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000.

As shown in Table 4-26, the annual regional VMT is anticipated to decrease by approximately 26 million miles, or 0.02 percent, when compared to the No Build Alternative. When compared to the TSM Alternative, annual regional VMT is anticipated to decrease by approximately 8 million miles, or 0.01 percent.

When compared to the No Build Alternative, CO concentrations are anticipated to decrease and ROG and PM_{10} concentrations are expected to increase. However, ROG and PM_{10} emissions increase by less than 1 percent, which is considered not adverse under NEPA (not significant under CEQA). Changes in NOx emissions are negligible when compared to the No Build Alternative.

When compared to the TSM Alternative, CO and ROG concentrations are anticipated to decrease. Changes in NOx and PM_{10} emissions would be negligible when compared to the TSM Alternative.

~~Under the Lankershim/Oxnard On-Street Alignment, i~~Increase in criteria pollutant concentrations of the On-Street Alignment over the No Build ~~Conditions~~ Alternative would not violate CFR 40 Part 51, and a conformity analysis would not be required. Thus, less than significant impacts are anticipated.

❑ Minimum Operable Segment (MOS)

Criteria pollutant emissions for MOS are shown in Table 4-27. The regional VMT for the MOS was estimated using the ~~Los Angeles County Metropolitan Transit Authority (~~LACMTA~~)~~ transportation model.

Table 4-27: Estimated Change in Criteria Pollutant Emissions for MOS (Year 2020)					
Vehicular Class	**Annual VMT (millions)**	**Criteria Pollutant Emissions (tons per year)**			
		CO	**NO_X**	**ROG**	**PM_{10}**
Passenger Vehicle (Light duty Auto/ Light duty trucks)	141,636	491,801	70,257	26,542	3,123
Bus/CNG	237.4	322	1,557	434	5
Commuter Rail/Diesel	5.0	41	122	1,103	28
MOS Total	141,878	492,164	71,936	27,079	3,156
MOS vs. No Build (percent change)	-29 (-0.02% change)	-104 (-0.02% change)	-2 -(0.002% change)	11 (0.04% change)	0
MOS vs. TSM (percent change)	-11 (-0.01% change)	-36 (-0.01% change)	-2 (-0.003% change)	0	0
Note: VMT = vehicle miles traveled.					

Source: Terry A. Hayes Associates, see FTA New Start Worksheets in Air Quality Appendix, 2000.

As shown in Table 4-27, the annual regional VMT is anticipated to decrease by approximately 29 million miles (approximately 0.02 percent) when compared to the No Build Alternative, and 11 million miles (approximately 0.01 percent) when compared to the TSM Alternative. When compared to the No Build and TSM Alternatives, CO and NO_X concentrations are anticipated to decrease. However, ROG emissions are anticipated to increase by 11 tons per year, and PM_{10} emissions are anticipated to increase by approximately one ton per year when compared to the No Build Alternative. Changes in ROG and PM_{10} emissions are negligible when compared to the TSM Alternative.

Under the MOS, the increase in ROG emissions when compared to the No Build Alternative would exceed the Federal Conformity Criteria ~~for ROG~~ by 1 ton per year. Thus a conformity analysis would be required.

It should be noted that the MOS is a shorter alignment than the Full BRT and Lankershim/ Oxnard On-Street Alignment. The Full BRT and Lankershim/Oxnard On-Street Alignment are longer alignments and therefore generate lower VMT than the MOS. As a result, these two alignments have lower ROG emissions. Although incremental increases in ROG emissions for the MOS would exceed the Federal Conformity Criteria, ROG emissions for the Full BRT and Lankershim/Oxnard On-Street Alignment would not exceed the Federal Conformity Criteria.
A summary comparison of all alternatives is provided in Table 4-28.

Table 4-28 Comparison of Criteria Pollutant Emissions (Year 2020)

Alternative		Criteria Pollutant Emissions (tons/year)			
		CO	**NO_x**	**ROG**	**PM_{10}**
No Build		492,266	71,938	28,068	3,155
TSM		492,199	71,938	28,079	3,156
	Change from No Build	-67 (-0.01%)	0	11 (0.04%)	1 (0.03%)
Full BRT		492,151	71,936	28,071	3,155
	Change from No Build	~~-48 (-0.018)~~ -166 (-0.02%)	-2 (-0.002%)	~~-8 (0.03%)~~ -3 (0.01%)	0
Lankershim/Oxnard On-Street Alignment		~~492,177~~ 492,170	~~71,973~~ 71,938	~~28,077~~ 28,076	3,155
	Change from No Build	~~-23 (-0.01%)~~ -96 (-0.02%)	~~35 (0.05%)~~ 0	~~-2 (-0.01%)~~ 8 (0.03%)	~~0~~ 1 (0.03%)
MOS Alignment		492,164	71,936	27,079	3,156
	Change from No Build	~~-36 (-0.01%)~~ -104 (-0.02%)	~~-2 (-0.003%)~~ (-0.002%)	0 11 (0.04%)	0

Terry A. Hayes Associates, 2000.

4-7.3.2 CO Hot Spot Analysis

Carbon monoxide concentrations at 21 study intersections were calculated using the USEPA CAL3QHC micro scale dispersion model. CO concentrations at each study intersection include future ambient 1-hour and 8-hour CO concentration of 5.1 and 3.6 ppm, respectively. Results are discussed below.

a. No Build Alternative

Table 4-29 identifies the 1- and 8-hour CO concentrations at the 21 study intersections under the No Build Alternative. As indicated, future No Build CO concentrations would range from 7.2 to 10.3 ppm for 1-hour concentrations and from 4.5 to 7.2 for 8-hour concentrations. CO emitted at the 21 study intersections would not exceed the State 1- and 8-hour CO standard of 20 ppm and 9 ppm, respectively.